

But the defence! At that time the thing was notorious and in every body's perception and memory: what, therefore, did the parties? They justified the ill-doing! They were "proud," nay, they were "happy" to avow their "connection" with it! It was what they had done for "other surgeons," and if it were not for the ill odour of a *certain* name, nobody would have noticed it!

Now, this was plain and intelligible;—the accusers were to be "bullied" out of countenance by a big voice and a Bob Acre manner. There can be no doubt that with "any other name 'twould smell as sweet" (it could hardly smell less so); but even if the name were no worse than that of Smith, or Jenkyns, or Simpkins—merging the obscure vulgarity of one name in the vague harmlessness of the others—the fact, we submit, would be still prominent, that for such an evil, so committed, and by such a criminal, the defence could serve but as an aggravation; for it shuts our eyes to the ill doings themselves only to open them more widely to that greater phenomenon—the moral obliquity it implies. It is one thing to violate grossly the professional code—it is another grossly to sanction that violation; but the climax is not reached till all this be done by a medical journalist in the face of day, and done in such a way as to show that, while careless of right himself, he is unconscious or careless of what is held right by others.

This defence, however, was hardly completed and published before the spasmodic access of valour it implied disappeared, and to the boastful defence and justification now succeeds the petty—miserable—and lying denial.

What a fortnight ago the party was "proud and happy" to avow, on Saturday last he declares never took place; nay, it is coolly added, that the advertisement is a "fraud and forgery," for which legal proceedings are to be taken!

Have men patience for such a system of defence as this—a system which it would be a calumny to place at the doors of the Turpins—the Jonathan Wilds—or the other inmates of a felon's cell?

Is the advertisement a thing so unknown? Do the newspapers not tell their own tale? Does the bold justification suggest a point for doubt? In what excesses, then, of audacity and mendaciousness must those persons deal who, with men of reason and honesty for their witnesses, stigmatise as forgeries to-day the notoriety which were matters of "pride," profit, and self-congratulation yesterday! They draw bills—accept them, get them into circulation, turn them into money, boast their "pride and happiness" in being connected with the transaction, and, when time turning, an account is demanded, their satisfactory answer is—"Fraud—forgery—we mean to proceed legally against the parties!"

Unfortunately the same *bureau* offers more than one instance of this, the most barefaced system of defence and attack, we do not hesitate to say, known in or out of Newgate. Dr. Dawson was attacked with violence as being, truly or untruly, an unprofessional practitioner. He retaliated by legal proceedings. To abject private solicitations was added, in the *Lancet*, as abject an apology as was administered in the House to Mr. Jones Loyd. The end was gained: the proceedings were stopped—and the *Lancet*, after a due interval, of course resumed its abuse. In self-defence, Mr. Dawson republished, from the *Lancet*, the apology *verbatim et literatim*. What

does the just—the honourable—the gentlemanly editor of a professional journal? What does he! He denounces the "apology" as a "fraud and forgery!" "No such thing appeared in the *Lancet* of such a date—the editor making or knowingly using a false date!"

Not to fatigue a patience exercised on such repulsive facts, we will not go beyond a *third* illustration.

Under circumstances which may yet resume their force, we published, three or four years since, *verbatim et literatim* from "The Annual Register," the report of the action between the member for Finsbury and the Hope Insurance Company. In the next week what did our contemporary? Precisely as with the abject apology to Dr. Dawson—and precisely as with the "extraordinary proofs" and "successful operations:"—it was "a malicious fabrication!" "the moment the report was seen it was put in counsel's hands," &c. &c.!!

Now, are we to go on tolerating, encouraging a system of falsehood so comically detestable—a kind of pirate-journalism in which the black flag is everlastingly waving against everything having the appearance of truth, virtue, and fair play? It is not for us—it is for the profession to respond! All we will say is, that no man's character is safe, nor any commonwealth healthy, while such things may happen with impunity.

GOVERNMENT MEDICAL REMUNERATION IN IRELAND AND CANADA.

THE members of the medical profession in Ireland, though they have apparently received a check in their efforts to secure a fair remuneration for their arduous services, by the cool effrontery of the Government, and the desertion from their ranks of some influential physicians and surgeons, yet exhibit an indomitable spirit. Their praiseworthy efforts are still continued, and, though not yet crowned with success, excite the sympathy and admiration of their brethren on this side the Channel. While the labours of medical men continue as arduous and as perilous as ever, they are compelled to risk their lives and sacrifice their time for the pitiable sum of five shillings per day. Death still continues to make havoc amongst their numbers, through the instrumentality of fever; and the bereaved condition of many widows and orphans has produced a powerful impression on the public, which, by subscriptions on their behalf, has rendered them some assistance in the midst of their distresses, and at the same time administered a sharp rebuke to the heartless conduct of Government officials.

In the midst of these calamities, which press so heavily upon our Irish medical brethren, the authorities of Dublin Castle have been hard at work to perpetuate the wrongs which they have been instrumental in producing; and for this purpose they have promoted some of the members of the Board of Health to posts of honour and emolument, and have introduced others into their places who at one period were forward to condemn a parsimony as unjust as it is injurious. Sir R. Kane has for some time ceased to be a member of the Board of Health, and his place is now occupied by one who, in the early struggles of the protesting physicians and surgeons for honourable remuneration for services performed, smiled approvingly upon them. Thus it is that a love of honour and of emolument has prevailed with some over the better feelings of humanity, and has enabled the Irish Government to resist to

the present moment the righteous demands of a laborious, benevolent, and courageous body of men.

It is clear, however, that the high official personages at the Castle rest their hopes of ultimate victory over Irish physicians and surgeons, by fomenting divisions amongst them. The profession of the United Kingdom has ever been viewed as exhibiting the same characteristics as the ancient Grecian commonwealth. The various states of which this was composed, when united, were able to conquer their most powerful enemies; but, jealous of each other, their energies were too frequently employed to effect their own destruction; so, in these modern times, the commonwealth of medicine has been prevented occupying a right position in society, from the selfsame causes which operated so injuriously against the classic and warlike Greeks. Hitherto the Government has fought its battles against the profession with medical mercenaries, and so long as these can be found in sufficient numbers will the Executive laugh to scorn all protests and remonstrances. We fervently hope a better state of things is beginning to prevail, and that ere long we shall see no more of those defalcations which have rendered the profession a rope of sand.

There is no doubt that in Ireland a healthy feeling is beginning to be exercised, but as yet it is not extensively developed. The memorial from Sligo, signed by twenty-seven of the most eminent medical practitioners of the county, and the meeting at Cork, powerful from its numbers and the unity which prevailed, are encouraging proofs that the day of redemption has already dawned. These demonstrations have only to be multiplied to hasten the wished-for event; and the names of those who are leaders fit so benevolent a movement will be handed down to posterity as the benefactors of their profession and the friends of humanity. It may indeed be pleasant for the members of the Board of Health to bask in the sunshine of Government favour; for this they have willingly become the tools of statesmen in office, and have suffered them, under cover of their names, to perpetrate acts of injustice and insult which non-medical officials would never have dared to attempt upon their own responsibility. The members of the board may now enjoy the approbation of the viceregal court, but the indignation of their professional brethren greets them from without, and will cleave to them with the same tenacity as the leprosy did to the mammon-loving Gehazi.

In the Sligo address to Dr. R. J. Graves, the Board of Health has received a severe handling, and it is only a foretaste of what it must expect when the day of retribution comes. "It is not a board," say the memorialists, "so constituted that medical gentlemen can look with hopes of its efficiency in times like the present—they look not to men who, from their extensive private engagements in the profession, have not an hour each day to spare to the necessary business of such a board—men who, from their association with the profession, must necessarily be exposed to the temptation, or at least the imputation, of exercising invidious predilections. They look for practical, efficient men as necessary constituents of a Board of Health—men whose individual attention should be given to the business they undertake—men who would firmly dictate proper rules of conduct, which no government could refuse to sanction and adopt—men who, if their conscientious suggestions were rejected, would at once cease to act uncon-

scientifically, and resign office rather than do so. A board of such a nature, looking each upon himself as a trustee for the health and well-being of the sick poor, would act in such behalf as its members would each in his own personal illness do, by providing the most respectable and capable advice they could obtain—advice which they could honourably approve and honestly reward, and never would attempt to stamp the opprobrium upon their own profession, that men of high celebrity therein could be found offering a bonus to incapability by becoming Jew brokers, dealing in a merchantable commodity, and ingeniously attempting to overreach their younger and more necessitous, but not consequently less competent and meritorious, brethren; but, alas! for the apologetic friends of the present board—this is the very contemptible position to which they, in the public prints, have essayed to sink it."

How different is the language addressed to Dr. Graves, the friend and advocate of the Irish medical profession:—

"To you, then, dear Sir," say the memorialists, "we tender our special thanks—you, who have advanced from your high ground (with the honourable exception before mentioned), leaving your many conferees, who have attained a similarly dignified station, silently to repose therein, in the total desertion of the respectability of that profession by which they have attained such an elevation, in total forgetfulness of the arduous means by which they have reached it, and neglectful of the duty which with them should have been paramount—the duty of holding forth a protecting hand to their future successors, who look to their example as the best security of their rewards, are endeavouring (but still weakly) to tread the same honourable path in their precarious onward course. We are quite confident, dear Sir, that you will yet have the gratification of knowing that your conduct on the present occasion (if the members of the profession remain but true to themselves) will finally be productive of its anticipated result; and we trust the sentiments which we have approached you to express will quickly be re-echoed to you from every quarter of the kingdom."

But the injustice and inconsistency of the Government towards the members of the Irish medical profession appear still more conspicuous when we contrast their pay with that which the Canadian medical officers received for their attendance upon fever patients. These have been paid at the rate of two guineas per day, while those are only allowed five shillings. It has been recently determined, however, that the salaries of the Canadian medical officers shall be reduced to twenty-five shillings a day. This proceeding has justly excited public indignation, and the *Toronto Herald* remarks, "It is perfectly clear that, for the discharge of their severe and hazardous duties, the fee, as originally allowed, of £2 per diem, was certainly not more than a fair equivalent. And it seems to us peculiarly hard that now, at the last hour, when the violence of the disease, as we may hope, is in some measure subsided, those practitioners who have exposed themselves to the infection at its worst state, and have borne the burden for so long a time, should be forced to resign by what they reasonably consider to be undeserved treatment."

We rejoice in the fact that the colonial press has thus stood forward on behalf of the members of the medical profession, and we consider it an act of injustice on the part of the Government to reduce their salaries after they have engaged in such arduous and perilous labours. But why, we ask, is such a difference made in rewarding our brethren at home and those

abroad? The skill required to be exercised, and the danger incurred, are the same on both sides of the Atlantic, and yet how different the scale of pay which is adopted! We can only account for this from the fact, that in Canada no Board of Health exists, having physicians and surgeons connected with it mean enough to truckle to the parsimonious requirements of the Government.

We hope our Irish medical brethren will never relax their efforts till a full measure of justice be done them; and we bid them godspeed in their noble undertaking.

THE POOR-LAW MEDICAL CONVENTION.

THE Committee had a conference with the College of Physicians on Tuesday last, and are to meet the Society of Apothecaries this day (Friday) at half-past two. It is expected that reports of these conferences will appear in this and the other medical journals of next week.

MR. WARDROP'S WORK ON THE HEART.

THE first part of this important work appears with the present number, and our readers will now be able to adjudicate on the encomiums which we have passed on it as one of the worthiest offerings which our profession has ever made at the shrine of science and of elegant literature.

We propose to give, weekly, eight pages, with sidenotes, as shown elsewhere (equivalent to two sheets of small octavo), without any intermission, to the conclusion of the work. It is thought that this plan will be more agreeable to our readers than publication in larger portions fortnightly.

The title-page and contents will be published with the last part.

THE PROFESSORS OF THE LONDON UNIVERSITY COLLEGE.

[To the Editor of the Medical Times.]

SIR,—On cool, sober reflection, and laying aside all the contradictory opinions of prejudiced individuals, it must be admitted that, in the elections of the different professors since the foundation of the institution, the Senatus of the London University School have acted on a wide and broad principle, the result of which has been most satisfactory; and, comparing the mode they have adopted in choosing teachers with the practice of the other medical schools of the metropolis, there leaves not the smallest doubt of that which is the most beneficial.

The London University School has had a list of medical professors, and time has shown with what judgment they were elected. The names of Bell, Grant, Quain, Sharpey, Liston, Elliotson, Turner, and Davis, are all well known to the scientific world, and they were all appointed after their reputation as teachers had been established: an insuperable advantage in such selections, because, whatever faith some may place in the French method of bringing forward the candidates at a public *concours*, it cannot be for a moment compared to the certainty derived from appointing a man who from his years and position has already shown himself to possess the requisite qualifications.

In the Borough hospitals, St. Bartholomew's, St. George's, and all the other schools connected with hospitals, the chairs are filled by sons, and sons-in-law, nephews (dare we say nieces?), cousins, and by individuals with whom the ruling powers have some direct or indirect connection; and they have been elected at a period of their lives, too, when none of them could have shown competency, however many of them had shown incompetency, for the task they had undertaken. One consequence of this system of favouritism is, a great dearth in the rising generation of men of talents in the metropolis, and, were we obliged to give the name of any individual in all these different schools to fill up the chair of surgery at either of the universities, we should be much at a loss on whom to fix.

The principle, therefore, of the London University School, on the occurrence of any vacancy, searching

assiduously for the best man they can get, it matters not from whence he shall come, has, undoubtedly, enabled them to form an infinitely better school than those establishments that have acted upon a different system of election: and we think it extremely probable, that from the number of medical schools that have of late years been established throughout the British empire, highly-qualified teachers will spring up, from amongst whom individuals will be frequently selected to fill some of the medical and surgical chairs in the schools of most repute in the metropolis.

No little credit is, indeed, due to the London University Senatus for contriving to induce teachers to join them who, I should have thought, were likely to spurn at the idea of accepting such appointments; the salary of the surgeons of the hospital being only £150 a year—a pitiful recompense for all the labour and anxiety which the duties of such an office necessarily involve, and affording one of those far too numerous instances of the members of the medical profession accepting offices and performing duties for a pecuniary consideration much less than is at all compatible with justice, and with the usages of all other professions. I will venture to affirm that a "dispensing chemist," making up pills and draughts behind his counter, will earn twice as much money in the number of hours that a surgeon is daily employed in the London University School, than the miserable pittance given to a Liston or a Syme!

DRS. WILLIAMS AND WATSON AGAIN.

[FROM A CORRESPONDENT.]

Those who wish well to the respectability of the medical profession, and those especially who are at all interested in supporting the dignities of the College of Physicians, must sincerely rejoice that the correspondence of Drs. Watson and Williams has apparently closed; and Dr. Watson's reply to Dr. Williams's accusations will, it is hoped, be deemed a satisfactory apology for his conduct.

As a whole, the correspondence certainly offers a deplorable example of the professional etiquette of the fellows of the Royal College of Physicians to the rising generation, and the "letters" are equally disreputable as literary compositions. In this respect there is a striking family resemblance in the productions of both these eminent professors, and neither of them exhibits that classical taste for which the "fellows" would wish the public to estimate their literary acquirements.

But what ought most to interest the profession in this personal squabble is the exposure it has made of the serious mistakes which are made, not only by one or two, but by no less than five individuals, (a) all and each of whom have written upon the subject, and endeavoured to uphold auscultation as one of the most sublime discoveries for detecting the true nature of diseases of the chest. Now, it so happens that the unfortunate case of Mr. Liston is not a solitary example of the fallacy of physical signs. Since that case has been made public, day after day brings under our notice mistakes and blunders of equal magnitude; and it is assuredly full time that the subject should be amply and fairly discussed.

Of these examples of fallacious diagnosis we may allude to one in particular, which has been communicated to us. The wife of a respectable medical practitioner had a disease of her lungs, and, although she had every symptom of pulmonary phthisis, a question arose as to whether or not there was a cavern in one of the lungs? and, to ascertain this, her husband was urged to get her chest examined by two stethoscopic physicians, one of whom pronounced, after all the "pedantic solemnity of a stethoscopic examination," as it has been justly denominated by Dr. Copland, that she had a large cavern in the lung, and the other auscultator pronounced, with equal positiveness, that she had no cavern! Soon after, the patient died, and a large cavern was found in the substance of the left lung. It is remarkable enough that the physicians who were consulted were two of the eminent men who attended Mr. Liston!

DR. R. LEE.

[To the Editor of the Medical Times.]

SIR,—In your journal of the 15th inst. you state that "The Council of the Royal Society, having been grossly assailed in the leading article of one of our

(s) Drs. Williams, Watson, Forbes, Latham, and Stokes.

contemporaries, on the unfounded allegation that they had 'blackballed' a recent paper presented to them by Dr. Robert Lee, we think it our duty to publish the following document in vindication both of the council and of the Committee of Physiology. The assertion that the paper in question was rejected has been industriously circulated, and it has been suffered to remain uncontradicted by Dr. Lee himself, although he must have been aware of its being untrue, because it was at his own solicitation that the council permitted him to withdraw it before they had discussed the question as to the propriety of publishing it.

Yesterday I ascertained that Dr. Roget, the senior secretary of the Royal Society, if not the author of these remarks, in which a great part of the truth is suppressed, carried the anonymous document, called "Report of Dr. Robert Lee's Paper, entitled 'On the Ganglia and Nerves of the Uterus,'" which appeared in the *Medical Times and Medical Gazette* on the 16th inst., to the printing-office of the latter journal, and caused it to be printed without the sanction either of the Committee of Physiology or of the Council of the Royal Society. A secret and confidential report on a paper which I had requested the council to postpone the publication of until the drawings were completed and corrected, has been copied by Dr. Roget, or by some person under his control, carried to the printing-office of the *Medical Gazette*, and printed without the sanction of the Council of the Royal Society, with the above remarks, equally false and injurious to me.

The observations in the *Lancet* above referred to by Dr. Roget, it is known to the whole profession, were chiefly made because the council had actually blackballed the last paper sent by Dr. M. Hall to the Royal Society. In vindication of the council, why did not Dr. Roget publish at the same time the report of the Committee of Physiology to the council, which led the council to refuse a place in "The Philosophical Transactions" to Dr. Hall's paper, which was not withdrawn by him. The vindication of the council and Committee of Physiology is most imperfect and most impotent, and has been made in a manner implying a gross breach of official trust, which the council is bound to inquire into.

I have already stated in your journal, and beg leave to repeat in the most distinct and unqualified terms, that I have never written one word anonymously in the *Lancet*, or in any other journal, assailing the conduct of the referees on my paper, and now you will understand that I will not be held responsible for anything that is published without my name.

I beg leave also again distinctly to state, and trust no person will ever question my veracity upon this point, that I twice requested that a contradiction might be given in the *Lancet* to the assertion which the editor had made, believing it to be correct, that my paper "On the Nervous System of the Heart" had not been blackballed by the council, but that its publication had been postponed at my request. In compliance with the desire of the Marquis of Northampton, expressed to me during an interview with his lordship, I sent to the editor of the *Lancet* the abstract of my paper in the printed proceedings, with the letter to Professor Christie inserted in your journal last week, with the desire that they should be published. The request, which I made and repeated a second time, has not been complied with. It is quite unjust to accuse me of want of veracity and honour, when I feel that all my proceedings have been conducted with the most jealous regard for truth and veracity.

I am, Sir, your obedient servant,

ROBERT LEE.

4, Saville-row, Burlington-gardens, Jan. 25.

[We cannot wish our two contemporaries joy on the position in which Dr. Lee's letter places them: the one involved in a charged breach of confidence, the other refusing to retract proved and admitted calumnies.—Ed.]

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Continued from page 287.)

DIFFICULTY OF OBTAINING APPRENTICES.—Therefore the apprenticeship system may, if rightly carried out by honest men on the one side, and diligent young men on the other, be a beneficial control to the young men, while, on the other hand, it does not necessarily interfere with

their reputation in the higher branches of the profession, irrespective of the art of compounding medicines. But I suppose it would be right to observe that the complaint is very general that no apprentice can be procured now, that it is a thing which seems to have been tacitly very much given up. Apprenticeships are, in a great measure, nominal now, I believe. In my answer to a former question I assumed that the apprenticeship is not nominal, but I take a young man who has come from an apprenticeship of five years, and I compared him with one who has been at the university; their respective qualifications and preferments. Yet the education of the young man at the university does not necessarily involve an expenditure of at least double that which the apprenticeship system would involve in the case of the other young man, and, therefore, you could expect that an equal number of young men should go to the university, as go through the apprenticeship system, considering merely the relative expenses of the two. Apprentices cannot be procured by surgeons or by general practitioners. There is a difficulty in hospital surgeons procuring apprentices; but I understand it is the same with respect to general practitioners in the country, that they do not get apprentices as they used to do. But I am aware that it is peremptory with regard to the Act of 1815, and that the young man cannot legally undergo his examination at the Apothecaries' Hall unless he has passed an apprenticeship of five years; still I am led to understand that the apprenticeship is in many instances a nominal business. I have no reason for believing that the Society of Apothecaries have evaded the law; I really know so little about it that I would not undertake to say that. I am very willing that it should be put down as my impression that an apprenticeship is little more than nominal; but what the Society of Apothecaries have done I must leave them to explain. With respect to an apprentice to a surgeon of a hospital, or to a hospital, for they are registered in our hospital, and are recognised really as belonging to the hospital, though apprenticed to a particular surgeon; a young man of that kind has every opportunity, if he have diligence, of studying his profession from the beginning of his apprenticeship to the end. He has the opportunity of studying pharmacy; and he has the run of the dispensary; but he must pay for it. Supposing that a few very great men by their own powers may have risen to the top of their profession, even if they were apprentices to apothecaries, that would not shake my conviction that an early education is what the mass of the general practitioners now requires; but I do not wish to mislead the committee. The defect in the apprenticeship, as I have had occasion to observe, of the general practitioners is, that they have left school very early, at fourteen or fifteen it may be; that they have spent the next five or six years (I forget now exactly the time) with a country apothecary or general practitioner, and that, as far as I have had occasion to make out, that period which they have spent with the general practitioner has been in very many instances without profit; that they have had no opportunity of continuing their studies, which have been very short at school, and that they have learned nothing fresh.

DEFECTIVE GENERAL EDUCATION OF STUDENTS.

—My experience bears out that the large number of students who attend lectures have a most imperfect knowledge of language; yet I think that a real education in the principles of language is quite essential to enable a man to apprehend scientific truth in lectures. In many instances I have found young men incapable of spelling, and therefore very ignorant of their own language; and as for classical languages, I believe they know little or nothing of them. I believe that under the circumstances which I have mentioned, their ignorance of language, they would be incapable of comprehending a considerable part of the lectures which were delivered to them; I have found it to be so to a great extent. I attach very great im-

portance to a good preliminary education for medical practitioners. And I believe that preliminary education is the best foundation for establishing in their minds a perfect knowledge of scientific facts.

THE TWO UNIVERSITIES, AND STUDENTS FOR THE SURGICAL FELLOWSHIP.—I think it would be desirable, for the education of surgeons in the higher branches of their profession, that they should receive their preliminary education at the English universities; there are not any practical impediments to their doing so now. During the discussion of the question in the council of the College of Surgeons as to the preliminary education required for fellows, I wrote to some gentlemen connected with both universities, and found that by a little management it would be very possible for the students to take the degree of bachelor of arts at either Oxford or Cambridge consistently with the completion of their education as surgeons. I am acquainted with the ordinary requisites for a bachelor of arts' degree at Oxford or Cambridge now. It is my opinion that arrangements might be made by the universities, so far as I am acquainted with them, which would enable medical men to devote a portion of the time which they spend at the university to scientific pursuits, having a bearing on the formation of their minds, and at the same time having a direct tendency to prepare them for their profession. I have not thoroughly considered the subject; but it is very obvious what those branches would be. I take it, chemistry and what relates to natural science—botany, and so on; physics. I am of opinion that if a young surgeon were to devote his third year at the university to the deep study of chemistry, it would combine the double object of scientific university education and preparation for his profession, consistently with both objects. I am not very well acquainted myself with the system of the universities; but, during the discussion which we had with regard to the education of fellows, I wrote to several gentlemen connected with both universities, Dr. Whewell and Professor Sedgwick, at Cambridge, and two or three others, and at Oxford, Dr. Kidd; and one or two more; and, as I understood them, it was quite possible to combine with the education for a fellowship, that is to say, for a fellowship of the College of Surgeons, the accomplishment of a degree as bachelor of arts; but for a person who gave the third year of his college residence to the profound study of chemistry, botany, and other things connected with medical science, to make a distinguished figure in either university, relates to something very different. Chemistry and botany are not subjects, I am aware, of examination for a degree of arts. I cannot say that I ever heard of any instance of any young man who, commencing his professional education, either medical or legal, while he was at the university, made a distinguished figure in the competitions at the university. I am not aware that at the present moment, if a young man chooses to take up the subject of chemistry for examination in *disciplinis Mathematicis et Physicis*, he is at perfect liberty to do so at Oxford, and that the examiners must examine him in it if he does.

COMMON EXAMINATION FOR ALL.—I stated that I was anxious that all the members of the profession should enter at one portal; and I subsequently said, that what I meant was, that they should enter at one gate, and should proceed in different roads afterwards; that I thought that the preliminary examination might be sufficient for the general practitioner, and that there should be distinct examinations subsequently for those who were to practise as surgeons and those who were to practise as physicians.

ON WHAT SUBJECTS CANDIDATES SHOULD BE EXAMINED.—What I consider should be the subjects of examination of the general practitioner, and the course of education which he should pursue, are anatomy, physiology, and surgery; the theory and practice of medicine; you may say the principles and practice of surgery, pharmacy, materia me-

ica, chemistry, and midwifery. Medical jurisprudence I should scarcely consider necessary to make a distinct head. I think the courses on chemistry, and pharmacy, and so on, should form parts of it, certainly, and likewise botany. I want to get rid of as many lectures as I can, and get them to a more practical education. I consider, in fact, that the students are over-lectured; that they have to pay for more than they can possibly attend to. Then I consider that they should be subjected to an examination on the subjects which I have now named; and that the examination should be not less searching than the one which is now instituted at the College of Surgeons for members, and, I suppose, at the Society of Apothecaries, but that I know nothing about. You would require, probably, four examinations; I think that would include all, and the different subjects. The examination which I have now described is one which I would have all the members of the profession undergo; I have no reserve about it; you may take me quite at your own meaning, so far. Having undergone that examination, I consider that the individual should then have a right to practise generally. As a physician he would practise in necessary course, but he would not have the title, distinctions, or other privileges which may be connected with the grade of a physician. But, as regards surgeons in general practice, I consider that the public would be safe if there were such a class of practitioners as had undergone successfully the examination which I have now described. Then, subsequently, if a man wished to take a higher position, or one which I consider would be characterized by more scientific attainment, and wished to practise exclusively as a surgeon, I would add to the examination which I have now described the one for our fellowship.

DIFFERENCE IN THE FELLOW'S EXAMINATION.—Then he would be examined upon the same subjects, that is to say, anatomy, physiology, and surgery; he would only be examined upon those; and, in addition, proof of a preliminary education would be required. The examination in the last case I would carry as far as possible, as far as the limits of science would permit. Whatever was the highest state of science would be the requisite standard to which a fellow of the College of Surgeons should come up; I mean as far as the boundary of facts would admit. We do not examine in speculative theories, excepting so far as they may be involved in facts. I am sure that that second examination would afford to the public a better security for having a better practitioner than the first. I do not always find that the man of the highest scientific attainment is the best practitioner; not at all. Then the security would not be a general one; but the first examination, which I should conceive ought to be tantamount to that of what is now called a member of the college, is not required to be so searching or so extensive an examination; you could not apply it; the first examination, which I should consider would be the same as that for a member of the college, could not be so searching or so extensive as that of a fellowship. You could not expect persons at the period of the first examination to be as highly qualified as they would be likely to be afterwards. You cannot secure what may be called absolutely competent practitioners; they could not be in all respects competent, for instance, to perform all the operations of surgery: I mean the great body of the members; it must require experience afterwards, and extension of knowledge beyond that which we can require of them. Any system of education that we could adopt would not secure to the public that all medical practitioners should be good operators: there are some men who from want of the physical requisites will never make good operators. I have myself known young men of the highest attainments, and most industrious in their hospital studies, who, when they have been called upon to perform the duties of hospital surgeons, have altogether failed; and that can never be clearly foreseen by any system of examination which we could adopt.

REGISTRATION BILL, SCHEDULE (C.).—In my last examination I said that the registration under this bill, that is, the bill of the present session, "is a registration such as ought not to be the standard registration for England, because it does not inform the public what the qualifications of the persons registered are." At that time I had examined the schedule of the bill in which the mode of registration is described. My answer certainly wants a little explanation. I see that, and saw it when I read it. In the first place, with respect to the registration in Schedule (C.) there are two lists. Now, really I am not sure that I understand the use of the two lists, but I presumed in my answer that that second list, in which the qualification is not mentioned, would be the one which was generally distributed to the public. I did not understand that they were both to be in one register, because that would certainly obviate part of the objection which I entertained when I made the answer which I did. I observe in the schedule that they are registered in columns. I now discover that the first column exhibits the name; the second column the qualification, with its date, and whence it was derived, showing whether the individual is a member of any College of Surgeons in England, Ireland, or Scotland, or a fellow in the College of Surgeons, or a fellow in the College of Physicians. I consider that a more fair arrangement could be adopted; a classified registration would be preferable: that is, registering physicians exclusively under their title, and surgeons under their title. Those who held four or five qualifications would be registered several times. I do not think that that would be a very complex arrangement. We could very easily give such a registration from our College of Surgeons; the physicians could give theirs, and the general practitioners likewise would give theirs. Looking really without prejudice at that arrangement, I would not say that I can discover anything unfair in principle in it; but at the same time I think, if you have one list simply with the names and the places, without the qualifications, there is a tendency to remove the evidence of what they really are. If the qualification were set down in the topographical arrangement as well as in the other, the main objection would be removed. I think a classified registration would be better, but I might say that my objection would be removed; but, in saying that, still it will be observed that by this Medical Registration Bill a person who is only qualified as a general practitioner is considered to be legally qualified for holding the office of a surgeon. All the former acts of Parliament are done away with, and if, as I understand this bill, you are upon the registry, you are then qualified to obtain a legal appointment as surgeon; you may be surgeon to a union, you may be surgeon to a prison, you may be surgeon to St. Bartholomew's Hospital, and, in fact, obtain a surgical appointment however high, or however important. There is no law at the present moment to prevent a linen-draper from being appointed surgeon to St. Thomas's Hospital; no statute law of the realm; but such an occurrence is prevented by the good sense of the governors, and by the private and internal regulations of the hospital; but by this act he would acquire a legal qualification. He has got it now at common law if he be elected; there is no statute law to prevent it, but still he is not recognised as a legal practitioner. But, with respect to unions and prisons, there is a legal qualification required, and that you do away with: they must be members of the college. I am quite aware that that is only dealing with the materials which we possess at the present moment. If you were to register the profession in classes, you would register the members of the College of Surgeons who are practising as general practitioners, as surgeons, but they would likewise be registered, of course, as licentiates of the Apothecaries' Company; they would appear twice. In the discussions of the council relative to the Medical Registration Bill, the council did not express any desire that any

members of the council should be examined before this committee; and they named no members for that purpose.

(Sir Benjamin Collins Brodie, Bart., F.R.S., called in, and further Examined.)

SUGGESTIONS FOR IMPROVING MEDICAL EDUCATION.—In my former examination I was asked whether, having maturely considered the subject of medical education, there were any suggestions which I had to make to the committee, with a view to rendering it more effectual by legislation, and my answer was that it was a wide question; that I was not prepared to answer it without consideration, and I said that I would give the committee an answer at a future day if they wished it; I have considered the subject since my former examination, and I think there is one great improvement which might be made—that is, that the examination should be divided into two parts; that the students should come up for their anatomical and physiological examination at the end of one period, and for their practical examination in pathology and surgery at the end of another more distant period. I have no doubt that this would be a very great improvement indeed. I do not recognise any as students but those attending the schools and those who are registered at the college. I have not made up my mind at what period I would make them come up for the first examination, whether at the end of a year or a year and a half; at the end of two seasons, probably. This change would go a great way towards preventing the sin of "cramming;" and that practice I regard as a very great evil, certainly. I think, so far as our college can do so, they have endeavoured to prevent it. The examination is very practical, and the more of a practical character it assumes, the stronger is the check against the system of "cramming."

RECOGNIZED HOSPITALS AND SCHOOLS.—We allow students to go where they please, the schools having proved that they have the fit apparatus for teaching. We do not admit an anatomical school which does not prove that it has a proper museum, and we do not admit an hospital unless it has a certain number of beds; we may be misled in those matters sometimes; I dare say we are so. While we allow the public to go where they please for medical advice, we do not allow the students to go where they like for surgical knowledge; because under the name of schools there would be a great many places which were not schools at all, but mere places for "cramming." And we consider that the student might be defrauded by representations in such places and by such persons. I think that the public might be defrauded in the same way by the pretensions of an unqualified practitioner; but, if the Government give them a list of qualified persons, it is their own fault if they are defrauded. They need not be defrauded if they do not like to be so. The same arrangement might not be made with regard to the schools, thus leaving the teaching of medicine completely free. I have not much considered that question. It appears to me desirable that there should be the proof of a school having the means of teaching. We recognise no hospital with less than 100 beds, which is in fact a small number. In hospitals containing only fifty beds they would not have the means of knowledge; they would not have a sufficient quantity of facts. In a hospital containing 100 beds there might be three surgeons, and in an hospital containing fifty there might be only one, and if the surgeon of such an hospital had only a few students to attend to, and applied his mind vigorously to their instruction, he might render them much more competent to undergo an examination than in other institutions where there were more surgeons, and the students were more crowded, if surgery were a science in which there was merely a given number of established principles for our guidance; but the greater part of the knowledge that the surgeon requires consists of a detail of facts, which cannot be obtained, I apprehend, in sufficient quantity and sufficient variety in a very

small hospital. The best surgeons whom I have known have been those who have attended chiefly to hospital practice. Very few can have sufficient surgical experience except in the wards of an hospital to make what I would call accomplished surgeons. The hospital is the great theatre chiefly in which operations are performed; but it is chiefly for other reasons. Large hospitals are better than small ones. At St. George's Hospital, as long as I was surgeon to it, there were no periodical examinations; but there was that which is a great deal better, a constant communication of the surgeons with the pupils at the patients' bedsides. Without an examination I could know that the student has derived advantage from his observations, because I used very frequently to ask them questions, and they used to ask me questions, and I thus learned what kind of knowledge they had. There was a great deal of conversation, which must include questions. That is a great deal better than regular examinations, in which, after all, even in an hospital, there may be a certain amount of "cramming." This system may creep in even there to a certain extent, because an industrious pupil may be good-natured, and tell an idle pupil what answers to give.

THE COLLEGE EXAMINATION.—Mr. Green has said that the College of Surgeons require, with respect to medical education (that portion not strictly surgical), attendance on the practice of medicine, chemistry, materia medica, and midwifery. It is so. But we institute no regular medical examination. Of course, all surgical examination must include a certain quantity of medical examination, because a great part of the surgical diseases require medical treatment. I consider that, by our previous charter and our existing charter, the charter of 1843, we have the power to enforce a compliance with such regulations from our candidates as we have now made. I will not say how far we have legally the power. I believe we had an opinion upon that point, and it was rather doubtful how far we had legally the power; but public opinion is entirely with us, and I think public opinion is as good as the law upon such a subject. I believe the plan is approved of generally. I am not aware that we ever took an opinion of counsel as to whether we have power to institute an examination on medical subjects; such, for example, as the theory and practice of medicine, materia medica, and pharmacy. I think there would be this difficulty in extending our examinations upon those subjects, that, in order to have a perfect examination, we ought to have some of the most accomplished physicians in London, whom we have not got. We might have some present with us as assessors if the system of the college were entirely altered, and it were made a college for all purposes, but not under our present charter. I do not think it would be so much to the advantage of the public as our present system. I think that the subjects which medical practitioners are required to understand are so extensive that it is very well that the examination should be divided. But it would be a great deal better if the different examining bodies were all under one authority, so that they might act harmoniously with each other. It has been a very serious evil to the profession that there was no one body to harmonize the curricula of the Apothecaries' Company and of our college; I mean that the arrangements should so correspond that the studies of one kind might not interfere with the studies of another kind, so that at the College of Surgeons it should be strictly confined to surgery and anatomy, the foundation of surgery.

DEMAND FOR A NEW INCORPORATION OF GENERAL PRACTITIONERS.—I am aware that there is a demand for a new incorporation. I do not know how far it has met with the sanction of the Government. The Government best know that themselves. I saw the former bills that were introduced in relation to it, which referred to and recognised that arrangement, namely, the incorporation of a college of general practitioners. I forget what were the terms as to the examination of candidates; but I remember that the

surgical examination was to be held at the College of Surgeons. I forget whether that demand was complied with; but I certainly considered that that new corporation would rather have taken the place of the examination of the Apothecaries' Company, and that the examination of the College of Surgeons in surgery would have been continued as before. I rather think that the council formally objected to that portion of the title which included surgery; but, indeed, I am not quite certain.

SIR JAMES GRAHAM'S BILL AND THE COLLEGE CHARTER.—I do not recollect, when the charter of 1843 was granted, whether any new arrangement was made, or whether any arrangement was contemplated with reference to the introduction into our college of a medical examination. The draught of that charter was done by the legal advisers of the college, with the legal advisers of the Secretary of State, in the first instance, for the grant of a new charter. Application to the Secretary of State was made by the council. It was on the suggestion of the Secretary of State that the application was made by the council. If I remember rightly, the Secretary of State informed the council of the college that he proposed to introduce a bill to make certain changes in the profession, and suggested this as a part of that measure; and that was before any bill was introduced into Parliament. It did come upon many of the council by surprise certainly, but they had plenty of time to consider it. Of course whatever you hear for the first time may be said to come upon you by surprise. But the intimation came from the Secretary of State before any of the council made any application upon the subject as to his proposed measure, of which that was a part. I do not remember whether any suggestion was made by the Secretary of State to the council as to the persons who should be nominated fellows in the first instance; it was left to the college.

THE FIRST SELECTION OF FELLOWS OF THE COLLEGE.—The number was merely stated in the charter, without any qualification being specified. I have reason to believe that the selection has caused a good deal of heart-burning amongst the members of the college. All selections make heart-burnings. I dare say that some men of great respectability in the country, and in the profession, were excluded from that nomination; but I believe that the selection was made upon very sound principles, and that it was a very good selection. It was not a selection made hap-hazard; it was made on a system; and upon the whole, considering the difficulty of the task, looking back at it now, I think it was a very good selection. I will give you the analysis; there is an account of the whole, which I had made out at the time (*producing the same*); I was president at the time. In 1844 (I can read it briefly) there were 226 surgeons to public hospitals in various parts of England. There were forty-five lecturers on some branches of medical science, recognised as such by the council; ten were admitted on account of their contributions to the sciences connected with surgery—Mr. Owen, for example, and others; 126 surgeons in the army and navy, and East India Company's service, selected by the heads of their respective departments. Whether that was a right selection or not I do not know; they are responsible for it. There were four senators of the University of London; there were forty-one surgeons in London not engaged in practising pharmacy or midwifery, who were therefore eligible to the council, under the old charter and by-laws, and would have been disfranchised if they had not been nominated as fellows; many of these were surgeons of dispensaries or ophthalmic infirmaries, or held other public appointments. Then there were fifty-nine who were not admitted upon those general grounds, under these circumstances; fifty-nine provincial surgeons, not holding hospital appointments, but regarded as consulting surgeons in their respective vicinities; the majority were recommended by other practitioners, and some of them held public appointments. There was no one in

this last list whose diploma was dated since the year 1825. The whole number was 511. There were only fifty-nine about whom there was any difficulty, and as to those fifty-nine we did the best we could to get the opinions of practitioners in the country. One gentleman sent up a memorial from twenty general practitioners in the neighbourhood, desiring that the college would appoint him; and he was appointed as a matter of course. Others were recommended by two, three, or four persons in whom we believed we might put confidence. These were the only cases in which there could be any sort of prejudice or favour, and I will venture to say that on the whole it was done with as great a desire to make it correct as possible. But of course whether you make fellows of the College of Surgeons, or give away orders of the Bath, you will always have a certain amount of dissatisfaction, and it would be very difficult to make the selection exactly just.

MR. DERMOTT'S CASE.—There was one surgeon omitted falling under those different descriptions, a teacher in a school, and I think it was a pity that he was omitted. I do not know whether the profession disapproved of the omission or not. That is the only instance that I am acquainted with of the omission of any person falling under the heads described. Before we made the selection we did not make any general communication to the profession upon the subject, but it was generally known; that is, the charter was known. The members of the college generally knew that there was to be a nomination of fellows, and that they were to be limited in number. The senior members of the college did not know that, if junior practitioners residing in their neighbourhood would send memorials on their behalf requesting their nomination, they would be appointed.

OPINIONS ON THE COLLEGE CHARTER.—If the constitution of the charter were going to be changed or altered in any respects, there are no suggestions I would make in regard to improvements; I think it a great deal better to keep our charter as it is. It is working exceedingly well, and will in process of time do a great deal of good. I think that the mode of election into the council might be improved; but that, practically, it does not lead to much inconvenience. I consider that the charter has laid the foundation for a representative council.

MEETINGS OF THE COUNCIL.—The meetings of the council are not open to the fellows or members of the college; the constituent body know how their representatives act, though the proceedings of the council are conducted in secret, by the results; but in fact the council have very few proceedings. The principal matters that the council have to attend to, and which occupy a good deal of time, are the management of the museum and of the library; the council have little else to attend to, the system of education being determined. I think the constituent body know always pretty much how particular members act—that is, by private representation or private rumour; they have no means of publicly knowing. They know the conclusions at which the council come, which are, after all, on very few points. I do not think that there would be any good, for a portion of the fellows or members of the college to be present at the meetings of the council when questions were discussed relating to the government of the college. On the contrary, I think there would be harm in making the meetings public. The members know all that is worth knowing, and when you come to arrange the details of the museum or of the library, and to say how this is to be done, or that is to be done, I think the council can manage those things better among themselves. There are no important questions except those relating to the management of the museum and the management of the library, and the education of the students. If there is a government of the college it is a government where there is nothing to govern except what I have just mentioned. Supposing that there were any unjust regulation as to teachers, if that

regulation were not immediately known it would be no regulation at all, and therefore there would be no difficulty on that score. The electing portion of the council would not become acquainted with what had been the conduct of particular members of the council, except so far as they learned it from themselves or from other members. They would only know what was the result. They would not ascertain who constituted the majorities and minorities. That would be a defect if there were questions concerning the interests of individual members of the college, but, there being no such questions, I do not think it matters.

DUTIES OF THE COUNCIL.—I mean to say that the council have no important public duties to perform. I think it is an important public duty to see that the museum is taken care of and also the library; that does not belong to the council of the college, but to the trustees. The trustees know all about it, and the library is not a matter in which other people can be interested except so far as that the library should be accessible and useful. And, with respect to drawing up plans of education, I conceive that not even the profession generally are competent judges. The only competent judges on that subject are those who have been accustomed to teach; and, therefore, I do not see the good that is to arise from the admission of members generally to the meetings of the council. I see one great evil that would result, and that is, that it would interfere with doing the business; and the difficulty with us in regard to that, as is the case with other public bodies, is to get the business done.

SECRET MEETINGS OF THE COUNCIL.—I think the members always know how their representatives discharge their duty; and that the having other people present at the meetings would interfere with the business. I am aware that the public are admitted for the purpose of ascertaining how the business of Parliament is transacted; but my belief also is that in the present case the profession generally have too much good sense to care about it. I think that they would have no desire to be present. I dare say all sorts of desires have been expressed that the meetings of the council should be open. I do not believe that what I call the profession would care at all about it; I mean, that the men of good sense and experience do not care anything about it. I class as men of good sense and experience a large proportion, and a large proportion I suppose means a considerable body of persons. That complaints have been made of the secret manner in which the proceedings of the council have been conducted I dare say, and I think that there might have been some ground formerly, because the council elected themselves for life, and there was no check upon them at all; but now the members of the council remain upon the council for a certain number of years, and then go out of it. The members of the council who were in the council at the time the new charter was granted remain for life; but that is wearing out. I said in my former examination that we had not yet got all the good of the new charter, because the system of election is only gradually coming into operation; but it is the case that, if meetings of the council are held in private or in secret, the electing body will be incapable, except by the results, of knowing how their representatives have acted upon particular occasions, but the results tell them all they wish to know. It is in my opinion a great deal better that the council should, in the discharge of their duty, be independent. I do not say that they ought to act independently of the feeling of the professional body generally. What I mean is, that there is nothing done by the council the results of which are not immediately known. If the meetings of the council were made open and public, the experienced and well-informed and sensible members of the college would not attend them. If any person came, it would be those who had not been able to find any better occupation for themselves, and that would interfere with the doing the business. I do not see that any good would

arise from their attending; I think that only harm would arise. Every act which the council does is known, and must be known immediately, if it is to have any effect; then, in the next place, they can make no by-laws or ordinances without the approbation of the Secretary of State; they must be submitted to him, and he may consult anybody he pleases; and in the third place, every member of the council, except the original members, knows that he will another day be sent back to his constituents. I think that that is quite a sufficient check, and that anything more than that would interfere with the business being done without any corresponding good.

COUNCIL OF HEALTH.—The constitution of the Council of Health is an important question, provided that council is to perform the duties which were specified in the bills of Sir James Graham. On the whole, I approve of the council being appointed by the Crown. I do not say that is the opinion of my brother councillors, or at least of all of them, but on the whole it is my own opinion that it would be better if they were appointed by the Crown. I would make provision as to the description of persons of whom that council should be composed. I think they should be persons from each part of the profession, and also some persons not belonging to the profession. I think that such a council would be useful in many respects to the Government, and also to the profession, and especially useful in making the curricula of the different institutions harmonize. I consider that Edinburgh and Dublin should belong to the same council, and that no difficulty would be experienced by the Edinburgh and Dublin practitioners. If a Council of Health were useful here, such a body would be useful in Edinburgh and Dublin, as well for other purposes as for medical purposes; and there would be councils there, but they would be branches of the London council. I objected in my last examination to the power which, under the bill of 1847, would be given to one registrar, and I stated that I thought that it would be best under a Council of Health. I consider that, for the business of registering practitioners, if such a council were appointed, they would delegate their powers in that respect to a clerk or secretary; but the council would look to it to see that it was properly done. In the first instance, the council would meet in London. The great difficulty would be in starting. The council must meet first in London.

DISCRETIONARY POWER NECESSARY FOR THE COUNCIL AT FIRST.—If a person gave proof of having passed his examination, he would, of course, have a register; but the difficulty would be in the first instance, for a certain degree of discretion must be given to those having the register under their charge. I am aware that in the bill of Sir James Graham it was provided that all persons should be entitled to be registered who are now qualified to practise in any department of the profession, in any part of her Majesty's dominions; but I know that Sir James Graham also contemplated that there should be a certain degree of discretion given to the Council of Health, and that he was aware of the difficulty which I have mentioned. But the bill gave no discretion to admit persons who were not entitled to practise in any departments of practice in some parts of her Majesty's dominions. They would have to admit certain persons; for example, certain physicians and certain surgeons, who have not any licence to practise in this country. Under this bill they would not be admitted, but under Sir James Graham's bill provision would have been made for their admission. I mean that at the present moment two very eminent surgeons of the hospital at Bristol, who are consulted extensively by persons in that part of the country, and others in the same situation, would not be registered under this bill. The words of the bill in clause 3 are, who "shall produce his diploma, certificate, or licence, or other proof of his having obtained a diploma, certificate, or licence to practise as a physician, surgeon, or apothecary, dated prior to the passing of this

act;" those whom I refer to have no licence. I am not aware that they could be registered as surgeons. They might be registered as legally qualified medical practitioners, and opposite to their names their qualifications would be shown. That would be one way of getting out of the difficulty, but they would not be registered as surgeons. If the public considered that they ought to attach no importance to their names, on account of their not being members of the College of Surgeons, the public would have the means of ascertaining the fact; but that is of little consequence. What I mean to say is, that under this bill there must be a discretionary power given to the registrar, in the same way as there would have been a discretionary power given to the Council of Health under Sir James Graham's bill; but in my opinion a single person should not be entrusted with that discretionary power. In the first instance it cannot be helped that a discretionary power should be given to the Council of Health; and it is to be observed that that power was to be given to a council, and not to a single individual. And I think they should not have the power to admit persons who have no medical qualification; but the kind of qualification is a question upon which they must exercise their discretion. With regard to registration, they would be merely an executive body after the first, but I should say (and whoever will consider the subject will I know find that I am right) that in the first instance they must have a certain amount of discretion; Sir James Graham knew that, and would have provided for it by some alteration of the bill in committee. At present no physician is legally qualified to practise as a physician who has not an Oxford or Cambridge degree, or a licence from the London college; if that line were strictly observed some of the best physicians in the provinces would be excluded. I would give the Council of Health a discretion to register those two gentlemen of whom I spoke as surgeons certainly; but there are many other instances that I might give. I believe I did give others in my last examination. All that I meant to say was, that under the provisions of the bill of 1847 those gentlemen practising at Bristol as surgeons would appear to be registered as apothecaries. In my former examination I expressed a general disapprobation of the existing bill; I have not any personal interest in any measures which that bill might introduce.

(To be continued.)

A SHAM SURGEON — TRIAL FOR FORGERY AT THE CAPE OF GOOD HOPE.

Edward Thomas Taylor stood indicted for the crime of forgery.

G. J. Rousseau, sworn, deposed: Is a clerk in the Colonial office, and has been in public service twenty-two years; he knows the prisoner by sight; recollects his making application to the governor to be authorized to practise as an apothecary in this colony (a) [application produced and identified; the endorsement on the back is in his own handwriting, as follows:—"Application of Mr. E. T. Taylor to practise as an apothecary—referred to Medical Board"]. Mr. J. M. Craig was at that time the acting secretary to Government; he had often seen him write and sign his name; the signature on that application is his; he knows that the application to the Medical Board was sent on Feb. 23, 1842 [witness read the memorial to be allowed to practise as an apothecary]; this application was sent back from the medical committee on Feb. 24, with a report signed by Dr. Leisching, its president; the report before him bore the signature of the late Dr. Leisching [report read, recommending the permission prayed for]; on receipt of report a letter was written to prisoner, returning him his credentials, together with a

(a) In the official language of the colony of the Cape of Good Hope, apothecary means simply, practitioner in pharmacy similar to our chemists and druggists

licence to practise as an apothecary, a copy of which he had before him in the records of the Colonial-office [letter read]; the licence handed to him is signed by the governor, Sir George Napier, and by Mr. J. M. Craig, but it has been altered since he made it out; the word *as* is not in his handwriting; it stood where the word *surgeon* is now written, and the letter *d* has been since added to the word *an*; the words *surgeon* and *as* are not in his handwriting; these words are not in the handwriting of any of the other clerks in the Colonial-office, nor of Sir George Napier, nor of any other person connected with the Colonial-office; the word *surgeon* is written, *sur-* outside the margin, and the letters *geon* within the margin [licence here handed to the court and the jury; witness pointed out where numerous alterations had been made in this licence as it originally stood].

Cross-examined: The alterations are quite palpable, and any person might see them; the licence as altered stands as licences always do when given to practise as surgeon and apothecary.

H. Hudson examined: Is civil commissioner and resident magistrate of Albany; knows the prisoner; as civil commissioner he enrolled certain burghers last year to do military duty, when certain certificates for exemption were produced to him, signed by the prisoner; he objected to receiving his certificate, being under the impression that he was not authorized to practise as a surgeon; the certificates produced were signed by him as such; in consequence of this objection prisoner produced a document which purported to authorize him so to practise; the document handed to him was the one in question; the same as produced by Mr. Russouw, and which prisoner stated was his authority to practise as a surgeon; that document had not been handed to him before that time, but it was produced in his presence subsequently, at an examination by the clerk of the peace; the prisoner on that occasion made a declaration to him.

Counsel objected to this declaration being received as evidence on that occasion; objection allowed. On that occasion prisoner produced the licence then before the court, and in the state in which it now is.

William Bond examined: Is a bridle-bit and stirrup maker; he recollects, some time ago, prisoner attending his wife; he attended her as surgeon and apothecary; his wife is dead; she asked him if he were a qualified man, and he said yes, he had taken his degrees; an account was sent from prisoner for medical attendance [account produced]; those accounts were received from the prisoner, and part of them was paid by him.

J. H. Whitley examined: Is a confectioner residing at Graham's Town; he knows the prisoner; he attended his family last year as a medical man, and an account was sent in to him [account produced]; that account was paid by him to prisoner, and is in the handwriting of the prisoner; the other accounts previously produced are in his handwriting also.

Robert Moore: Is a tailor residing in Graham's Town; knows the prisoner; he attended his son Charles, who had met with an accident; he broke his arm, and prisoner attended him as a medical man; he first went to Dr. Atherstone, but he was from home, and he then met prisoner, and he came directly; he sent him an account subsequently, which account is now in the possession of his attorney, Mr. Stone.

Robert Goddington, editor and proprietor of the "Graham's Town Journal," produced a file of the "Graham's Town Journal" of Oct. 13, 1842, in which, in a dispute between prisoner and Dr. Deant, the former published as an advertisement a copy of his licence to practise as an apothecary, as follows:—

"Colonial-office, Cape Town, Feb. 4, 1842.

"I hereby authorize M. E. Thomas Taylor to practise as a licentiate apothecary in this colony. (Signed) "GEO. NAPIER,

Governor of the Colony of the Cape of Good Hope.

(Signed) "J. MOORE CRAIG,
Acting Secretary to Government."

W. M. Jaffray: Is manager of Messrs. W. Anderson, sen., and Co.'s business at Graham's Town; has known the prisoner since 1837, and has formed a very high opinion of his character.

W. R. Thompson, merchant: Has known the prisoner between six and seven years, and has found him strict and honourable in all his dealings; he has never seen anything in his conduct but what gave him the most favourable opinion of him.

E. L. Kift, merchant: Has known prisoner about five years, and the opinion formed by him is that he is a perfectly honourable man in every sense of the word.

Mr. Ebdon, as counsel for the prisoner, made a very able defence. He quoted Roscoe and Chitty on evidence—showing that to constitute forgery there must be intent to defraud; taking also an exception, and which he argued very ingeniously, that by the omission of the letter *a* the copy of the licence as set forth in the indictment did not correspond with the document itself, which had not the article *a* before surgeon. He stated he was instructed to state that the alterations in the licence had been made at the request of prisoner by Mr. Craig, since deceased, when acting secretary to Government, and that not only was his death unfortunate for the prisoner, but also that of Mr. R. Watson (late hotel-keeper), who could have shown the terms of intimacy between himself and Mr. Craig.

The Judge gave a very emphatic and luminous charge to the jury, pointing out very distinctly the connection of the evidence, and explaining accurately the nature of the offence constituting forgery. His lordship dwelt upon the high character given to the prisoner, but remarked that an individual's previous good character could not alter the nature of the evidence, and upon which alone the jury could, consistently with their oath, found their verdict.

The jury retired for about half an hour, and then pronounced a verdict of "Guilty," strongly recommending the prisoner to mercy, as well on the ground of the high character given to him in evidence, as from their own observation, during several years, of his fair and honourable deportment.

Sentence—Six months' imprisonment, with hard labour.

Prisoner, on receiving sentence, exclaimed—"I am entirely innocent—God forgive the instigators of this prosecution!"

R. MOORE v. E. T. TAYLOR.—This action was brought against the defendant, apothecary at Graham's Town, for having performed unskilfully a surgical operation. The son of plaintiff having had the misfortune to break his arm, defendant was called in as a medical man, and who treated it as a simple fracture, when from the evidence of Drs. J. Atherstone, G. Atherstone, and W. B. Morgan, the injury was a dislocation of the elbow-joint. This had not been reduced, and the patient had by the neglect sustained permanent injury. The court held that it was of the greatest public importance that incompetent persons should be deterred from thus doing mischief, but considering the situation of the defendant, coupled with the fact that the injured party had partially recovered the use of the broken limb, he should mitigate the amount of damage to £20 with costs.

GOSSIP OF THE WEEK.

NAVAL APPOINTMENTS.—Thomas Tait, surgeon, to the *Star*; George Pardoe Cooke, acting assistant-surgeon, to the *Victory*; Mark Hamilton, assistant-surgeon, to the *Rhadamanthus*; F. Manger, assistant-surgeon, confirmed to the *Caledonia*; G. B. Ryan, assistant-surgeon, to the *Crocodile*.

APOTHECARIES' HALL.—Gentlemen admitted members on Thursday, Jan. 20:—James Bailey, Wednesday; George Robert Hanbury, Hereford; Frederick Greenwood, Huddersfield; John Broadbent, Leeds; and Josiah Clarkson, Birmingham.

ST. THOMAS'S HOSPITAL.—On Wednesday, Mr. Jas. Dixon, one of the surgeons of the London Ophthalmic Hospital, was appointed assistant-surgeon in the place of Mr. B. Travers, jun., resigned.

THE COURT: CHLOROFORM AND THE QUEEN'S CONFINEMENT.—On Monday the Queen, Prince Albert, and their children left Claremont for Windsor, where they have remained during the week. Some interest was excited by an announcement in the *Edinburgh Witness*, that Dr. Simpson had received intimation that his services, with the agency of chloroform, would be required at her Majesty's approaching confinement. This would have been highly important, as establishing an example, a precedent, of which we English think so much. The matter is ended, however, the *Caledonian Mercury* having a peremptory "We have authority to state that there is not the slightest foundation for the report published in the *Witness*."

PROFESSIONAL NATIONALITY.—Curiously enough, all the appointments held by the late Mr. Liston, the surgeon, have been filled up by Scotchmen. Professor Syme, of Edinburgh, succeeds the deceased at the University College Hospital; Mr. Arnott, another Scotchman, occupies the chair at the Court of Examiners, hitherto filled by Mr. Liston; while Professor Ferguson, of King's College, a third Scotchman, is appointed surgeon to the Scottish Hospital in the room of the deceased, *Globe*.

QUARANTINE AT NAPLES.—We understand that official information has been received from Naples, stating that the Board of Health of that city has thought fit to place the whole United Kingdom of England, Scotland, and Ireland in quarantine, in consequence of a report that two cases of Asiatic cholera had occurred in this metropolis, in the month of November last. It is intimated that all vessels which may have cleared from the port of London since the 3rd of December will be refused admittance altogether into the port of Naples, and that vessels from any other port of the United Kingdom will be subjected to a quarantine of from 14 to 21 days. We trust the Foreign Secretary will lose no time in protesting with suitable alacrity and vigour against this absurd measure, so extremely injurious to the mercantile interests of this country, and so utterly unwarranted by the facts of the case. If the Neapolitan Government or its agents in London had made proper inquiries, they would have found that the only cases of illness which were assimilated at the time to Asiatic cholera were but two in number; that they were isolated cases, accompanied and followed by no circumstances which could in any degree warrant the existence of contagion, infection, or even of epidemic disease. This is not the first time that we have had occasion to remonstrate against the extravagant and precipitate measures taken by the sanitary officers of Naples. Some years ago they thought fit to place we know not how many ports of the United Kingdom under the same ban, because a newspaper had reported the existence of typhus fever in the wynds of Glasgow; and it has been shown that they have a personal and pecuniary interest in inflicting these vexatious restrictions upon commerce on all possible occasions. The present case is really one of such consummate impertinence and folly, that it calls for a prompt correction, and compensation to all such British merchants as may have been interrupted in their lawful undertakings by the capricious fears of the Neapolitan Board of Health, and we have no doubt that an immediate withdrawal of this order will at once be required by the British Government as a tone as to obtain it.

CHOLERA IN RUSSIA.—The *Prussian Universal Gazette* contains the following, under date St. Petersburg, Jan. 11:—"According to the last accounts received from Moscow, 159 cholera cases occurred in that city from the 19th to the 26th of December, 84 of which terminated fatally. During the preceding three weeks the epidemic preserved the same degree of intensity; but, during several days, the number of cases

had been somewhat more considerable. In the districts of the Government of Moscow the scourge was of a mild character. In the Government of Tver it continued circumscribed within the limits of the district of Torschok; but in the Governments of Kasan and Orenburgh it raged with more violence. In those of Minsk and Podolia it was extending slowly. The town of Bobruisk had severely suffered. On the 14th of December the cholera manifested itself at Witepsk."

THE INFLUENZA.—The *grippe* continues at Madrid. Four of the Ministers are confined to their beds by the malady—viz., the Dukes of Valencia (General Narvaez) and Sotomayor; M. Beltran de Lía, and M. Sartorius. Their illness is not of a dangerous character, but, generally speaking, the mortality is great. As many as 122 persons have died in one day.

OBITUARY.—John Campbell, Esq., M.D., late of Cawnpore, aged 49.—On Jan. 15, at Sunnyside, Robert Gregory, Esq., surgeon, aged 60.—On Jan. 16, of purpura, at the Plymouth Royal Eye Infirmary, Mr. John Elliott, the dispenser, aged 67, having filled that office for twenty-six years, since the commencement of the charity in 1821, with the greatest satisfaction to the subscribers, the medical directors, and patients. Mr. Elliott had also been a soldier in the South Devon Militia for forty-six years, and the sergeant-major for twenty-five years, during which period he received the commendation of every commanding officer under whom he served.—On the 11th inst., at 14, Manor-place, Edinburgh, Wm. Burt Wright, Esq., M.D.—On the 18th inst., at Hungerford, Mr. Barker, surgeon, in the 69th year of his age.—On the 3rd inst., at Kirkcudbright, Wm. Howatson, Esq., surgeon, late of Woodpark, Kirkpatrick, Durham.—On the 2nd inst., at Carlow, aged 83, Martin Tuomy, M.D., formerly professor of the Practice of Medicine in Trinity College, Dublin.—On the 4th inst., at Sheffield, Bedfordshire, aged 73, Charles Seaman Gaye, Esq., M.R.C.S.—On the 9th instant, at Armagh, of fever, Thomas S. Parker, M.D.—Late, at Tipperary, of fever, Edward Dalton, M.D., medical attendant of the Banaha Dispensary.—Late, at York, William Stephenson Clark, Esq., M.R.C.S.

MORTALITY TABLE.

For the Week ending Saturday, Jan. 22, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1401	1107
SPECIFIED CAUSES.....	1398	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	379	184
SPOADIC DISEASES.		
Droopy, Cancer, and other Diseases of uncertain or variable Seat.....	36	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	138	138
Diseases of the Lungs, and of the other Organs of Respiration.....	343	225
Diseases of the Heart and Blood-vessels.....	34	39
Diseases of the Stomach, Liver, and other organs of Digestion.....	67	62
Diseases of the Kidneys, &c. Childbirth, Diseases of the Uterus, &c.	20	9
Rheumatism, Diseases of the Bones, Joints, &c.	9	13
Diseases of the Skin, Cellular Tissue, &c.	8	8
Old Age.....	0	1
Violence, Privation, Cold, and Intemperance.....	25	31

NOTICE.

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the OFFICE.

TO SUBSCRIBERS.

The subscription for the stamped edition of the *Medical Times* is 15s. for the half-year, and £1. 5s. for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

TO OUR READERS.

The publication of Mr. Wardrop's work, and of the other series and contributions to which we are pledged, will occupy so large a portion of our available space, that correspondents who would secure publicity for their views are earnestly recommended to give their communications all the advantages (including brevity) which can arise from careful and mature preparation.

To avoid the trouble to ourselves, and expense to others, arising from orders for slips of communications, we have to announce that in future the publisher has orders to send, free of expense, twelve copies of the journal to every gentleman whose "original contribution" may be published under that "heading." This order does not apply, of course, to the small letters and contributions published under the heading "Miscellaneous Correspondence."

TO CORRESPONDENTS.

"Chirurgus, H.E.I.C.S.," informs us that he has had an opportunity of studying closely the Asiatic cholera, and that he has found, in its early stages, calomel and opium beneficial. He also states that he has seen many instances of great good effected by the abstraction of blood.

"Mr. S. Baker."—Application should be made at the War-office, where the necessary instructions can be obtained, and no expense incurred.

"Juvenis."—The articles required for the professional use of an assistant-surgeon are named in a printed document, which can be easily procured at the Company's house in Leadenhall-street.

"I. F. G., Windsor."—The communication has been received, and will in all probability be published next week.

"Spectator Medicorum."—The communication, though containing many good points, is inadmissible. It would subject us to an action for libel.

"Inquirer, Dockhead."—Gun-cotton has been employed for the purpose of applying cupping-glasses, a vacuum being produced by the sudden ignition of the cotton; nor do we know that it injures the skin.

"A Navy Surgeon."—We have already considerable information on the subject, and intend to consider it in all its bearings. We regret that the Government has exhibited so much supineness in rewarding deserving medical officers.

"Baccalaureus."—The work is published by Mr. Renshaw.

"Rusticus."—Our correspondent's experience in the profession must be very limited, or he would not propose the questions he does. Chloride of lime may be very well for the removal of certain noxious agents in the atmosphere; but we are doubtful of its efficacy in cleansing a foul stomach.

"A Constant Reader, Glasgow."—We can only form an opinion on the hospital reports by inspection. If sent, they shall receive immediate attention, and our opinion communicated afterwards in a private letter.

"Beta."—The case of amaurosis we shall not be able at present to insert.

"Socius."—The remarks are founded in truth, and the castigation is severe. We shall in all probability give the communication a place in our columns.

"Mr. Dalton."—We know of no gentleman suited to the proposed task.

"An Irish Surgeon."—The apothecaries' certificate must be obtained, or medical charges cannot be sustained in the courts of law.

"A Subscriber, Oxford."—As a surgeon, yes; as an apothecary, no.

"A General Practitioner."—Medical titles are of little value when obtained by purchase, and not examination. The German universities do not now grant degrees without first testing the abilities of the candidates.

"A Reformer."—The suggestions are good, and if our correspondent will favour us with his name in confidence they shall be published.

"E. A. G."—Robinson's work will suit our correspondent.

"A Westminster Medical Student" writes us as follows, in reference to chloroform:—"It is a well known fact, proved by daily experience, that the inhalation of chloroform produces relaxation of the muscles. Now, in the circular amputation of the thigh, the making a good stamp depends in a very great degree upon the muscles contracting powerfully and quickly immediately they are

divided with the knife, and allowing the surgeon to remove a greater portion of the bone, and so preventing the formation of a sugar-loaf stump. If we use the chloroform we prevent the muscles contracting, and after the operation is completed the stump may appear very satisfactory; yet after a time the patient recovers from the effects of the chloroform, relaxation of the muscles ceases, contraction comes on, and what the surgeon so much dreads (a sugar-loaf stump) actually ensues. Again, by the muscles being relaxed, many small vessels have to be secured by ligature which would otherwise be blocked up by the firm contraction of the muscles around them."

"Anti-Quack."—1. A member of the College of Surgeons is entitled to a fee for filling up the schedule, and his opinion would be considered valid. 2. It is necessary to prove attendance upon a patient in order to sustain a prosecution.

"A Pupil."—1. The phrase means inspissated oxgall.

2. Mr. Yearley's work.

"Amator Scientificus."—We would advise our correspondent to pursue the plan laid down in the calendar. The four or five first books of Euclid may be sufficient at the commencement.

"Mr. Robinson, Gower-street, Bedford-square."—The "Practical Remarks on the Employment of Chloroform in Surgical Operations" shall appear in an early number.

"T. H." complains that the editor of "The London and Provincial Medical Directory" has formed his black list with little or no reference to the qualifications of medical men; and supposes, from its extent, that he has acted on the compendious principle of placing in it everybody not subscribing to the book. We think the work so important, and so worthy of public support, that we should much regret any imperfections or deficiencies in detail.

"A Galway Reader."—The paper is not of a character to warrant publication; and we are not cognizant of the party in Dublin by whom it would be "eagerly published." There is, or was, a small weekly reprint of the worst parts of the English medical journals published in that city, edited by some unemployed practitioner with a Jewish name. Is this the journal meant? If our correspondent do not take pity on his paper in the meantime, we shall next week pass it on to that asylum of destitute contributions, if it still exist.

GUTHRIE AND LISTON.—We have received from Mr. Mitchell, of Bond-street, copies of two graceful lithographic portraits of Mr. Guthrie and the late Mr. Liston, from the pencil of Comte D'Orsay. We have in them all that artistic genius and gentlemanly taste can accomplish in doing justice to the external lineaments of these two great surgeons.

"Surgery made Easy."—G. S. C. says:—"The College of Surgeons are trying the experiment of 'surgery made easy.' In your advertising columns an advertisement appears for a pupil by one of these easily-made members, who first emerged as an apprentice to a veterinary surgeon, and then took up the trade of druggist; afterwards became a candidate for the ministry amongst the Wesleyan Methodists, and, being rejected, commenced adventures upon his fellow-creatures, with the sanction of a diploma conferring no legal qualification. Unable to face the examination at the Hall, he trusts for fame and fortune to a brougham cab, a little display, and the credulity of the public. His example has influenced others, and there are not less than five or six druggists attending the lectures at the Medical School of Manchester who openly boast that they intend to practice without the licence of the Hall, because to secure it more toil and more knowledge are required." Our correspondent insists on the application.

"Mr. Moore, of Bourton-on-the-Water," writes:—"It is only on account of its widely-spread diffusion that the extent of preventable deaths in rural districts has not received the attention it requires at the hands of sanitary reformers; for, were the isolated cases collected into one whole, they would be found to present an alarming proportion to the general list of mortality." He therefore "appeals to country practitioners and unlicensed medical officers for such early information as shall enable him to make a statistical report of the sanitary condition of our villages and smaller towns, which, if only an approximation to the truth, will show the necessity of extending to such places the benefits derivable from sanitary legislation." He appends a tabular list of queries, which includes for heads—"Names of villages or non-corporate towns," "Population," "Number of cases," "Mortality," "Causes which have appeared to extend the disease or to increase its fatality."

We shall endeavour to find room for a "Medical Officer, Lincolnshire," in our next.

The cases furnished by "Mr. Pritchard, of Barnby Moor," and "Mr. Stainthorpe, of Haxham," have been received. The communication of "Mr. Alfred Ebsworth" has been received, and shall have early consideration.

"M. D. Worcester," has much obliged us by forwarding the able article in the *Worcester Herald*.

"R. S., Cambridge."—Professor South's lectures will be early resumed.

"J. E. H., Claremont," addresses us in strong language on Dr. Lee's alleged attempt to impose on the Royal Society. As there are, however, some fresh facts to come before the public on the whole case, we deem it just to all parties to postpone this communication.

Letters and communications have also been received from Chirurgus, H.E.I.C.S.; Mr. S. Baker; Juvenis; I. F. G., Windsor; Spectator Medicorum; Inquirer, Dockhead; A Navy Surgeon; Baccalaureus; Rusticus; A Constant Reader, Glasgow; Beta; Socius; Mr. Dalton; An Irish Surgeon; A Subscriber, Oxford; A General Practitioner; A Reformer; E. A. G.; A Westminster Medical Student; Anti-Quack; A Pupil; Amator Scientificus; Mr. Pearson; Woolton; Dr. Charles, Cocktown; Mr. Allen, Lynn; Dr. Oxley, Pontefract; Dr. Smyth, Manor Cunningham; Mr. Cassan, Bradford; Mr. Wakeman, Crickhowell, &c.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE
IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq.,

Surgeon to the Royal Westminster Ophthalmic Hospital.

LECTURE I.

ON WOUNDS AND INJURIES OF THE CHEST.

Importance of the separation of surgery and physic; danger of wounds of the chest; advantages of auscultation; bayonet wounds rare; complication of non-penetrating wounds by pleuritis or pneumonia; nine cases; Dr. Stokes' case of pneumonia and gangrene of the lung from external injury; healthy sounds heard, during respiration, through the stethoscope; experiments of Van Swieten, Dr. D. Williams, and Mr. Quakett on wounds of the chest; percussion.

A knowledge of the practice of physic is inseparable from the practice of surgery, generally; it is especially so in the treatment of injuries of the chest, if the patient is to receive that assistance which the art and science of medicine, in its most comprehensive sense, can grant. In my introductory lecture for October, 1824, which was honestly taken, and published in the fifth volume of the *Lancet*, I said, nearly in the following words:—"Surgery is considered by some persons to be the management of that art and science by which we take upon ourselves the treatment of external diseases, in opposition to physic, which takes cognizance of internal complaints. This, however, is an artificial distinction: one unknown in Nature, foreign to her principles, and incapable of being preserved, by those who have extensive opportunities of practising the profession. In a large town, the surgeon, the physician, the apothecary, and the professor of midwifery, practising separately, may be brought together; and it may be said that a union of scientific men, each devoted to different parts of the same pursuit, is desirable in cases of doubt and obscurity. If the argument could be supported for a moment for the perfect separation of these branches of one and the same science, there is nothing to prevent a still further separation of the treatment of disease, even to infinity. The practice of surgery ought never to be separated from the practice of physic, if the surgeon is to take the (sole) charge of accidents. In the cure of a simple fracture of the leg, is nothing further necessary than the mere mechanical coaptation of the parts? Is the bone, like a piece of timber, unconnected with a living structure? If it be so, a carpenter could replace it as well as a surgeon. It is, however, a part of the living body; it reacts on the system, and requires constitutional as well as local treatment; the physician will be necessary, therefore, at every visit, to afford the requisite relief. If the surgeon is to be any other than the mere drudge, or artist, he must first learn the principles, and he must then continually engage in the practice, of physic."

These opinions were expressed nearly twenty-

four years ago; they preceded all those of the different gentlemen who have thought in a similar manner in later times. I have, however, done more than declare my sentiments on this point. I have been enabled, in consequence of my office, as one of the Council of the Royal College of Surgeons, to aid in carrying them into execution, with respect to those gentlemen who have of late years entered the profession, and intend to become members of that body. Since the year 1835 they have been obliged to follow the practice of the physician for a year in a hospital, after a reasonable preliminary study in the shop of the apothecary; and if any portion of blame, or of credit, is due to the proposers of a measure, however small it may be, that small portion—be it of censure or approval—is due to those who acted with me.

Wounds penetrating the walls of the chest, and implicating any part or portion of its cavity or contents, are among the most dangerous of injuries; and require in their treatment a more careful attention, and a greater extent of knowledge, than most others which befall mankind. The means which the improved methods of auscultation have afforded cause the progress of the symptoms which follow to be less obscure than formerly, and lead to a less doubtful practice; whilst they render a knowledge of this branch of medical science an essential part of the education of a surgeon who is desirous of attaining a complete acquaintance with the treatment of diseases and injuries of the chest—information withheld from me in former days, in those cases to which I shall principally allude, and the state of which I had to conjecture from those pathological facts which dissection had in other instances demonstrated, but the progress of which I could not always distinguish with anything like that degree of certainty which auscultation affords at the present moment. Careful and lengthened observations, which became in time experience, had pointed out the great and leading practical facts which accompanied and followed these injuries; and the treatment was perhaps as good, although more empirical, in the last days of the war in the Peninsula, as it is at the present moment. I cannot now add practical recommendations other than those which I have been in the habit of recording in my lectures during the last thirty years; but it is possible to render the causes and the symptoms which made these recommendations necessary, more apparent.

During the war in the Peninsula, and in France, the French cavalry, although always superior in number to the British, did not often avail themselves of that superiority, to attack in the manner they are reported to have done on other great continental occasions; and wounds from swords or lances were, therefore, comparatively rare during that eventful war. Wounds from bayonets were not more common: for although much has been written, and more stories have been told (indeed, so often told that the people who relate actually at last believe them), about charging with the bayonet, their crossing and

looking, the heroic efforts made by the conflicting parties, and so forth, that it might be supposed these wounds were of frequent occurrence; the fact is, however, otherwise. That regiments do advance, some in line, some in column, with the intent to charge with the bayonet, is indisputable; that other regiments do intend to meet them, or to receive the offered charge, is no less true. Nevertheless, they generally do neither one thing nor the other, but by some means, or accidental causes, of which I do not presume to give any account, one party usually thinks discretion the better part of valour, and walks silently and angrily away. The unfortunate fellows who cannot get off fast enough, do occasionally suffer a little in the scuffle which takes place, and here and there small parties may engage in personal conflict; but, be the matter as it may, it rarely happens that many are hurt by the bayonet, or, if they are, they are killed outright, and do not come under the observation of the surgeon. As duels with swords are rarely fought in England, and stabbing does not prevail to any extent, wounds from what the French term *armes blanches* have always been less common than those from pistol or musket balls.

Incised or punctured wounds, from swords, bayonets, or knives, require a mode of treatment essentially distinct, on many points, from gunshot wounds, especially in the commencement. On this early treatment so much depends, that details of the more serious or more important cases are rarely found among the records of injuries sustained on the field of battle, where so much is often to be done, and so few are to be found to do it. They are met with among the records of isolated cases which have occurred, from time to time, to medical men, who have had leisure to bestow upon them, and ability to direct its proper application; a remark especially exemplified in the "*Clinique Chirurgicale*" of the Baron Larrey.

The simplest of the more serious results from injuries not penetrating the chest is the occurrence of inflammation either of its lining membrane, giving rise to what is called pleuritis, or of the substance of the lung, termed pneumonia. These affections are rarely met with separately after wounds, and more particularly the latter, without implicating the former, constituting what has been named pleuro-pneumonia.

CASE 1.—I stood immediately between some soldiers on the 17th of August, 1808, in the act of leaving the village of Colombeira to ascend the heights of Rolica. One, who was shot in the leg, jumped up three or four feet, and made a considerable outcry. A second was struck at the same time by a ball on the shoulder, which did not penetrate, but gave him great pain. A third received a ball on his buff leather belt, on the right breast. The noise made by these two blows was very distinct. This man fell, and was supposed to be killed; the ball had, however, only gone through his belt, and made a mark on his chest, over the cartilage of the fourth rib, the hardness and elasticity of which had prevented further mischief. He recovered in a short time,

spit a little blood in the night, and after a large bleeding was enabled to accompany me on the 20th to Vimiera, ready for the fight next morning, from which he escaped unhurt.

CASE 2.—A soldier of the battalion of detachments crept up to me on the hill of Talavera on the evening of the first attack of the French advance, who had driven them over it. He had been struck on the breastplate by a ball, which, as he believed, had gone into, if not through, his body. He was as white as a sheet, and desperately frightened. On opening his coat, I found it had struck against the breastplate, and had made a round, red indentation on the skin, without going deeper: the breastplate had saved him. I did not see him again for several days, until after crossing the bridge of Arzobispo, on the retreat to Truxillo. He was then engaged in disembowelling a fine fat hog, amongst a herd of which we had unluckily for them just fallen. He recognised me at once, said he had been, as I told him, more frightened than hurt; that he had been bled largely and well physicked, and after a couple or three days had thought no more of it. I am bound to add, that in gratitude he offered me a part of a leg, which, having nothing to eat, I could not but accept. It supplied a dinner for three (besides myself), who are now no more.

CASE 3.—A soldier of the 40th Regiment slipped from the ladder on which he was attempting to scale the wall near the great breach of Badajoz, the night the place was taken, and fell on his cartridge-box, which hurt his left hypochondrium so much as to render him unable to move for some time. The next day, the 7th of April, he suffered great pain at this spot, and on the 8th was so much worse as to seek advice at the hospital tent. The ribs were not broken, but the part injured was painful to the touch, the difficulty of breathing considerable, with a hard cough, and little expectoration. Pulse 90; skin hot, appetite gone, tongue white.—V.S. ad 3xvj. and aperients. 9. Better, pain less, expectoration more in quantity and viscid.—V.S. ad 3xij., and antimonials. 10. Pain still felt on coughing, expectoration reddish, difficulty of breathing greater.—Pil. cal. et antim. c. opio; V.S. ad 3xvj. 12. Better in every respect. He gradually recovered, his mouth becoming slightly sore, from what was manifestly an attack of pneumonia.

CASE 4.—A gentleman, in 1836, fell from his shooting-pony on his powder-horn, which bruised his right side from the seventh to the last rib, and, as he said, knocked the breath out of his body, and hurt him so much as to render him incapable of walking from one room to another, from pain in the side, back, and thigh. No bones were broken. The pain, on the second day, was augmented on breathing and on attempting to cough, and which spirituous frictions did not relieve. The third day he was purged and bled to sixteen ounces, which gave some relief, but, as the symptoms increased on the fourth day, he was more carefully examined. His right side could not bear pressure; the respiratory murmur was distinct, but accompanied by a crepitating rhonchus under the part injured; cough troublesome, expectoration mucous, viscid, and of a reddish tinge. Antim. tart. and sulphas magnesice every four hours; V.S. ad 3xij. On the fifth day, the symptoms being little altered, he was cupped on the part affected to fourteen ounces. On the sixth day, the pain was only felt on coughing, or on drawing a very full breath; expectoration redder and thicker, pulse quicker. The rhonchus was quite as distinct.—V.S. ad 3xij., and the medicines to be continued. After this he quickly recovered, and the natural respiration became distinct.

CASE 5.(a).—A mason, thirty-two years of age, fell from the height of seven feet on his back, on the 12th of July, the posterior part of the skin of the right hypochondrium being grazed; the fall

did not prevent his continuing to work. On the morning of the 13th, on awakening, he felt a pain on this part, which was increased by every movement of the body, and was accompanied by general disquietude, cough, dyspnoea, and loss of appetite. The 14th and 15th he remained in bed, the symptoms continuing. On the 16th he was admitted into the Hôpital la Charité, and was bled. On the 17th the pain was great, the cough very troublesome, the breathing short and quick. Percussion gave in front its full sound; it could not be effected behind from the pain it occasioned. The respiratory murmur under auscultation was clear and strong before and on the sides, but to the right and behind, in nearly all the extent of the inferior lobe of the lung, a crepitating rale was distinguishable. The expectoration was viscid, transparent, and of a greenish colour; the pulse was scarcely frequent; the skin cool. The nature of the expectoration, and the auscultation, declared the existence of pneumonia.—V.S.; a poultice to the side. A slight sweat took place in the evening.

18. Pain less, respiration freer; otherwise the same. Twelve leeches to the pained spot on the side.

19. Pain only felt on coughing, on percussion, and on drawing a deep respiration; rather more fever. The expectoration more viscid, and rust-coloured (*rouille*), the dyspnoea greater, the crepitating rale continued. It appeared from these symptoms that, whilst the pleurisy diminished, the inflammation of the parenchyma of the lung increased.—V.S. ad 3x., which gave a sensible relief.

20. Breathes freer; expectoration less viscid; crepitating rale stronger, with a mixture of a slightly natural pulmonary expansion sound; fever less. In the course of the day the nose bled freely.

21. An evident amendment of all the symptoms, and from the 22nd to the 23rd complete convalescence.

The viscid, rust-coloured expectoration, and the crepitating rale, disclosed the existence of pneumonia in the first instance, which the absence of fever might have rendered doubtful; and as the stitch or pain indicative of pleuritis diminished, the signs of pneumonia became more marked.

CASE 6.—Lieut. Cooke Tylden Pattison, of the 43rd Light Infantry, was struck on the left breast by a musket-ball, on the morning of the 16th of July, 1813, in front of the village of Vera, in the Pyrenees. He sprang two or three feet in the air, and fell on his back breathless, and as if killed. When he had in some degree recovered from the blow, he found that his life had been preserved by an accident. Whilst waiting the order to advance, he had been reading "Génie Blas" in Spanish; and, on receiving it, he had hastily put the book in the breast-pocket of his coat. The ball had struck this, but, unable to penetrate it, had fallen on the ground at his feet, completely flattened on one side, and marked with the impression of the braid of his coat. A piece of the cover of the book, about the size of half-a-crown, was driven in, and the leaves throughout were indented by the ball. It was some days before the effects of the blow entirely subsided.

CASE 7.—A stout man, fifty-three years of age, fell on the stairs with an iron box in his hand, on Tuesday, the 7th of September, 1847, and bruised the left side immediately over the ends of the short ribs, which gave him great pain at the part, and over the cartilage proceeding to be attached about the eighth rib. On the 8th he was bled freely; aperients and saline medicines were given, and a bandage was applied tightly around the body. On the 9th the pain became greater, the breathing more difficult, and a crepitating rhonchus was heard underneath both the spots complained of. On the 10th I saw him for the first time, in consequence of the crepitation or cracking of the lung, resembling in some degree the crepitus of a fracture; and, as the breathing was very difficult, removed the bandage, which gave him relief. Pulse 108; cough troublesome,

with some thick mucous expectoration. The crepitating sound could no longer be heard, nor the vesicular murmur under the two spots, which still gave him great pain on being touched. Blood was drawn until relief was obtained; about twenty-four ounces were taken away, and three grains of calomel, with two of James's powder, and one-third of a grain of opium, were given every four hours. On the 11th he was in all his feelings better; the pain had subsided; the breathing was easier, more natural, and clearer in every part except the two spots before mentioned; bowels open; cough troublesome. Continue the calomel and increase the opium at night. On the 13th the gums were slightly sore, and his symptoms had all diminished in intensity. 14. Cough alone was troublesome; respiration distinct, except under the parts injured, and there even some indistinct murmur could be perceived. From the 16th to the 24th the mouth was kept moderately sore; blisters were afterwards applied on the parts injured, and he gradually recovered.

CASE 8.—A soldier of the 97th Regiment was struck, at the unsuccessful assault of Fort Christoval, opposite Badajoz, by a musket-ball, which went through his brass breastplate and coat, drove his shirt into his skin, and against the sternum, which it was not able to penetrate. He fell, and was supposed to be killed; but he soon recovered his mind, got up, and ran to the rear as fast as he could. The ball was found flattened between his shirt and coat. The part of the chest was very black next day when I saw him, the spot struck by the ball being much bruised. It was necessary to bleed him largely. All difficulty of breathing was then removed.

I have seen very many instances of persons struck in different parts of the chest, nearly similar to those above stated. In some they have been fortunate enough to escape with the blow and the alarm; in others a little spitting of blood ensued; and, as in the preceding cases, more or less inflammation followed. When a ball actually makes a wound, rather than bruise the part, internal inflammation is a consequence perhaps more rare.

CASE 9.—Major Lightfoot was struck by a musket-ball on the left breast, which went through his clothes, the integuments, and the outer part of the great pectoral muscle, and slanted inwards for three inches towards the sternum, to which distance its track could be followed. It was evident that the ball had neither lodged nor penetrated, for no serious symptoms ensued, and I had with him as little doubt that it had been ejected the way it went in by the elasticity of the cartilages of the ribs near the sternum.

This sort of injury, which I have seen in many other instances, is, at the moment, as curious as it is interesting to the patient.

The nine preceding cases show that inflammation of the pleura, and sometimes of the lung itself, is a common consequence of a severe blow. The following case of its extending even to gangrene is recorded by Dr. Stokes:—

CASE 10.—A middle-aged man was attacked with symptoms of pneumonia, in consequence of a contused injury of the right side. From these he partially recovered, when he was thrown from a car, and received a second injury on the same side. Cough, with a dark-coloured, offensive, and occasional hemoptysis, set in. He was admitted into hospital, in the seventh week of his illness, with extreme prostration. The countenance was of a leaden hue; the respiration seventy-two in a minute; breath fetid; cough constant, with expectoration of a yellowish-white purulent matter. By the stethoscope, a large cavity was detected in the right lung. He died four days after admission.

Inspection.—A vast gangrenous abscess occupied the whole posterior part of the right lung, and contained a large, moist, and soft slough, of an extreme fetor; the upper part of the cavity was lined with a distinct layer of coagulated lymph. Dr. Stokes gave in this case, and thinks the best remedy in gangrene of the

lung is, chlorine, in the shape of chloride of lime and soda, combined with opium.

In order to understand, or to become in any way acquainted with, the changes from the natural structure which are going on under derangement in the chest, from even simple injuries, it is necessary to have recourse to auscultation, and sometimes to percussion, if the external parts are not too tender. Under all circumstances, both sides of the chest should be examined, whilst perfect silence and quiescence are observed; the stethoscope being preferable, when the ear has been properly trained to its use. (a) As the ordinary breathing of an individual is rarely sufficiently strong to enable the auscultator to hear with sufficient distinctness, the patient should be desired to inspire fully and more quickly than usual, without, however, much effort, and without noise from the mouth or nose, or retaining his breath. The inspiration and the expiration are both to be carefully observed. When the patient is really awkward, and cannot respire in the manner necessary to convey sounds to the ear with the required precision, he may be desired to cough, each shock of which will be preceded and followed by a long inspiration, when the desired object may be attained, which in some persons it is difficult otherwise to accomplish.

Respiration being effected through the medium of the larynx, the trachea, and the lungs, the sound derived from the passage of the air is different in each. When the ear is firmly and equally applied to the chest of a healthy young person, a very distinct and long-continued sound is heard at the moment of inspiration, and another at that of expiration. This is called the vesicular or respiratory murmur, and is dependent on the air fully permeating and distending the air-vesicles of the lung. It has been almost poetically compared to the sound of a gentle gale rustling in a thick summer foliage, to the whisper of a falling wave on a sandy beach, in a calm day. It is soft, scarcely monotonous, variable, and during inspiration continuous.

When the ear or the stethoscope is applied in the situation of the great bronchial passages, as over the first bone of the sternum, under the clavicle, in the centre of, or between, the shoulders, a different sound is usually, but not always, distinguishable, when the patient breathes fully, arising from the passage of the air through these bronchial tubes. It is compared to the noise made on blowing through a reed or quill, and is called bronchial or tubular respiration. When heard in other parts of the chest, it is generally regarded as a morbid sound. If the stethoscope is applied over the trachea, the sound is louder, rougher, and more intense, and is called tracheal respiration. On the larynx, it is louder, hoarser, and rougher still. It has been compared to the hissing sound caused by blowing into a cavity through a tube of large calibre, and is called laryngeal respiration. In childhood the respiratory murmur is louder than in adult persons, arising probably from the greater activity of the lungs in young than in elderly people. This is called, and especially when perceptible in adults, puerile respiration, as opposed to their ordinary, or what in old persons may be called senile; and is more marked during inspiration.

The length of the sound in inspiration, as compared with that of expiration, has been said by Fournet to be as five to one. Barth, Roger, Andral, Hughes, &c., consider it to be as three to one, or five to two. One is louder and longer than the other, a difference requiring attention, from the circumstance that morbid sounds of great import are heard in inspiration, which do not prevail during expiration. When any other difference is perceptible between them, so that they more nearly resemble each other in du-

ration, or in intensity, or when expiration is prolonged, some structural alteration may be suspected in old persons, some diseases in young ones. When little or no respiratory murmur can be heard after symptoms of inflammation have existed for some time, the case is very serious, implying that effusion into the cavity, or that condensation of the lung, has taken place to a considerable extent.

The number of inspirations in the adult and elderly person varies from eighteen to twenty-two, in a state of health. From twenty-two to twenty-six in children. The stroke of the pulse is generally as four to one. If the inspirations are eighteen the pulse will in general be seventy-two. Both may be slower, although they are often more frequent, under disease. When the breathing is slower, it commonly indicates some affection of the nervous system; when very rapid, some important lesion within the chest.

Ordinary inspiration is effected in health by a general enlargement of the chest, which takes place by an elevation little remarkable upwards, and by its enlargement from before backwards. The diaphragm at the same time descends, drawing the lung downwards with it. When the breathing is hastened, the elevation of the chest is more evident. When the breathing is forced to its utmost, the thorax is manifestly enlarged in every direction.

Van Swieten, in the second volume of his "Commentaries on Boerhaave," page 95, Edinburgh, 1776, says Dr. Houtouin showed him a little dog, both sides of whose chest he had opened three days before, and which ran about briskly. Having examined these wounds, he saw that the lungs did not adhere, and that a wax candle was extinguished by the air blown out from the wounds. After making some horrible experiments on other living dogs, he came to the conclusion, "that wounds penetrating both sides of the thorax, and admitting the air, are not speedy and certainly mortal, unless the opening exceed in size those of the glottis."

Dr. D. Williams, of Liverpool, in 1823, apparently unaware of the atrocious experiments committed by Van Swieten on this point, instituted other experiments on dogs for a similar purpose, which he published in "The London Medical and Physical Journal," and came to the same conclusion;—"That the lung of one side will not collapse to any extent after an opening has been made into that cavity, provided respiration is duly carried on by the opposite lung and that the lungs possess a peculiar motive power dependent probably on their vital, as well as organic, elasticity." He further showed that a dog would recover after an opening of an inch, and a half long had been made in each side of the chest, provided the animal be allowed to run about, with as free use of his respiratory organs as can then be effected.

Dr. Williams was also induced to apprehend from his experiments that a sound lung never fills the bag of the pleura, particularly towards the diaphragm, at least during ordinary respiration; and he was led to this from not being able to wound the lung in a living dog, by pushing a knife into the chest immediately above the eleventh rib. I requested Mr. Quekett, the assistant-conservator of the College, to repeat this experiment on some sheep at the moment of their being killed. He stabbed five sheep immediately on their throats being cut; in three of these, in which the knife was passed between the tenth and eleventh ribs, both the lung and diaphragm were wounded. In the fourth, in which the puncture was made between the seventh and eighth rib, the lung only was wounded; and in the fifth, in which the knife was passed between the last two ribs, the diaphragm only was penetrated, the knife passing through it, into the abdomen. He therefore concludes, from these and other observations, that the base of the lung is always in contact with the surface of the diaphragm.

In ordinary expiration the chest diminishes in size. The ribs which had been raised recede, by the elasticity of their cartilages and by the return

of the ligaments to their state of rest; the elevating muscles become relaxed, whilst others belonging to the lower part of the trunk and abdomen contract. The diaphragm is relaxed and pushed upwards by the viscera of the abdomen, pressed upon by the muscles of its wall, if it should not be drawn upwards by the attraction of the lung, which, when distended, endeavours by its elasticity to return upon itself, and to occupy less space than the capacity of the chest will afford. The lung, covered by the pleura pulmonalis, and invested by an elastic, special, and transparent membrane, is composed of an innumerable number of air-vesicles, the largest being equal in size to the fourth part of a millet-seed. These air-vesicles, crowded together, each communicating with a fine bronchial tubule, are separated from each other and into groups by a condensed cellular tissue, thicker where it surrounds these lobules, which alternately form, when aggregated together, a lobe, whence it is called interlobular tissue. An artery and vein form a very minute network around each vesicle. (a) These vesicles may become filled by water; and, when dilated by air, constitute what is called emphysema of the lung. The lung is in man constantly applied to the internal surface of the chest. The pleura, or serous membrane covering the lung, is closely applied to the pleura lining the wall, and one surface glides upon the other, maintained by a secretion in just sufficient quantity to effect this object. If the intercostal muscles of a young animal are removed to a sufficient distance, the lung and the diaphragm may be seen applied to the inside of the pleura lining the rib, and ascending and descending in concert, the lungs moving vertically, not horizontally. (b) The diaphragm ascending, and covered by its pleura, is in a similar manner applied to the lower part of the wall of the chest, which had been filled by the lung during inspiration. After death the lung remains applied closely to the pleura, and recedes on an opening being made into that membrane, provided no adhesions exist to prevent it.

Dr. Stokes believes himself to be the first who pointed out an elastic tissue covering the lung, and lying between its substance and the pleura covering it. Mr. Gulliver demonstrated the existence of a yellow elastic tissue, like that found in the coats of arteries, not only in the interior of the lung around the air-cells, but that it was identical with the external elastic capsule, which is particularly strong in the horse and the elephant. Camper, Stukely, and others, had already shown that, in the elephant, the lungs were kept in close apposition with the sides of the chest and diaphragm, by means of a connecting membrane extending from the pleura pulmonalis to the pleura costalis. Mr. Quekett informs me, that microscopic observation has demonstrated that this membranous structure is, in reality, a normal elastic tissue, and not an adventitious membrane, the result of inflammation.

Mr. Quekett is, then, disposed to conclude that, whilst no pleural cavity really exists during life, which cannot be the case in the elephant; that, in this animal, the connecting elastic tissue, aided by a delicate areolar tissue, assists materially in inspiration, as well as in expiration.

When inflammation of the pleura takes place, the gliding motion is not effected silently, but with a peculiar noise, called by the French *frottement*. When the lung is inflamed, the respiratory murmur is changed in that part, or is overcome by a peculiar sound, which can be distinctly investigated by the ear—*rhonchus crepitans*. Hence the great value of auscultation, the discovery of which has immortalized the name of Laennec, and enabled the physician to inquire more accurately into the nature of the symptoms which take place, from their com-

(a) Reississen de Structura Pulmonarum.

(b) See "Regnaud, Journal Hebdomadaire," tome 5, 1829.

(a) For extended views and explanations of the practice of auscultation, reference may be had to the able works of Messrs. Barth and Roger, Paris, 1841, and to "The Clinical Instruction in Auscultation," by Dr. Hughes, London, 1845.

finement to their termination in resolution, or during their progress to destruction of the organ.

Auscultation of the voice can also be effected, and discloses peculiar sounds in the natural state, which are also observed during certain stages of disease, when they sometimes mark considerable, and sometimes permanent, derangement of structure. They are called, in general terms, pectoriloquy, bronchophony, and egophony, which latter is always a sign of disease.

Perfect pectoriloquy, or chest-talking, occurs from the sound of the voice, in a healthy person, being heard when he speaks, if a stethoscope be applied to the larynx, the ear of the auscultator not applied to the instrument, being closed by the finger. It will, under these circumstances, be as distinct as if the lips of the speaker were applied closely to the ear. If the stethoscope be placed in succession over the trachea, near the sternum, the voice will not be conveyed in so clear and distinct a manner. This is called imperfect pectoriloquy. If the stethoscope be now removed to the first bone of the sternum, or to the part over the cartilages of the second and third ribs, or to the inter-scapular region, a different sound will be heard when the patient speaks, which does not appear to pass through the instrument; it is loud, but distant, and not distinct. This is called bronchophony, or bronchial sound. These sounds all, however, merge into each other, and may be considered as varieties of the same sound, more or less distinct or recognisable by one auscultator than another.

Percussion is an aid from which, in particular cases—such especially as pneumo-thorax and empyema—much information may be derived. It is, however, inferior to auscultation, as a whole, and not so readily applicable in cases of wounds and injuries, in which it would sometimes cause great pain, and more inconvenience than would be compensated by the information to be derived from it, unless the first symptoms had been subdued. It was first introduced to general notice by Avenbrugger, physician to the Spanish Hospital at Vienna, in 1763, in a work entitled "*Inventum novum ex Percussione Thoracis*," &c. &c. A translation into French was published in 1770, by Roderic de la Chassagne en Montpellier; and another by Corvisart, in 1808. In England, physicians were not unmindful of Avenbrugger's labours before the time of Corvisart; and in 1799 and 1800 I frequently assisted the late Dr. Rowley in his examinations of the chest after this method, particularly in cases of hydrothorax, few of which escaped the investigation which percussion afforded.

CLINICAL LECTURE ON SOME DISLOCATIONS ATTENDED WITH REMARKABLE CIRCUMSTANCES.

By JOHN F. SOUTH, Esq.,

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DISLOCATION OF THE RIGHT THIGHBONE BACKWARDS AND DOWNWARDS INTO THE ISCHIATIC NOTCH, FIVE TIMES.

Elizabeth Judge, aged twenty, married, admitted into Dorcas's Ward Jan. 6, 1847, one r.x. Delicate and of flabby texture; eight months gone with child; her second pregnancy. She stated that her mother says the right leg was always shorter than the other, but she herself is unconscious of it, as she has never suffered any lameness.

About six years ago she considers that she first put her right hip out; when, being accustomed to lace herself very tight, so that she could not bend her spine, except altogether on the hip-joints, in pulling on her boot she was obliged to screw herself down very much on the right side, and whilst thus engaged she heard a sudden snap, and felt violent pain in the back of the hip. She immediately raised herself up, and the bone seemed to return to its place, with a snap less distinct, however, than the former. Two years

after, the same accident occurred, whilst carrying a tray down stairs, by slipping upon, but not actually off, the edge of the stair. On this occasion she did not hear the bone go out nor return, but believes it was dislocated on account of the severity of the pain, the shortening of the leg, and for a short time the incapability of motion. The pain continued during several weeks.

Two years ago, according to her account, the dislocation occurred for the third time, whilst she was on her knees, unlacing her boot and preparing to go to bed. She heard the bone go out, but it did not return for a few minutes, and on account of the violence of the pain she could not use the limb; but the pain soon subsided on her getting into bed.

She has of late been much in bed on account of her size and weight, and this morning in moving from one side to the other of it, the displacement was produced for the fourth time; but the bone did not return as previously, and a practitioner was therefore called in, who sent her here.

The appearance of the limb was clearly that of dislocation into the ischiatic notch. The right leg was rather shorter than the other; the knee and toes turned a little inwards; the buttock less rounded; the great trochanter behind its natural place and less prominent, and the head of the thigh-bone not to be felt. The movements at the hip were not much restricted, as the thigh could be bent to a very acute angle upon the belly. This, together with the mother's assertion, gave rise to some doubts as to the actual existence of any recent dislocation; but a careful examination of the hip proved satisfactorily the existence of a dislocation, and the woman's own account rendered it more probable that it was recent.

This decided, it became matter for consideration whether, in the advanced stage of her pregnancy, it would be prudent to risk the probability of premature labour, which might be expected to result from the suffering she would undergo in effecting the reduction of the dislocation. Considering, however, that it would be a serious matter to leave her a cripple at so early a period of life, it was determined that, if after stating the circumstances of the risk and the lameness, she and her friends consented, an attempt should be made. Upon the matter having been explained to them, they agreed that reduction should be tried, and, therefore, as the least violent method, Morgan's plan was adopted.

The patient was laid upon the floor on her back, and her pelvis fixed in part by a jack-towel passed around the lower part of the belly horizontally, so as to grasp the dorsum of the right ilium, and its end held on the left so as to prevent the pelvis being thrust to the right, and in part by the hands of assistants, so as to keep it down to the floor. I then put myself on the ground on the same line as the patient, and, having taken hold of her right ankle with both my hands, I placed my right foot on the front of the right oval hole, as near as possible to the inside of the top of the shaft of the right thigh-bone, a folded towel having been interposed between the pelvis and my foot to protect the soft parts on the former. A jack-towel was also fastened round the thigh above the knee, to assist in making the extension.

Being thus prepared, I steadily and strongly drew the leg downwards and obliquely across the sound limb, at the same time thrusting the upper part of the shaft of the displaced bone outwards, so as to lift its head out of the notch. In a very few minutes the head of the thighbone rose and slipped into the hip-pan with a distinct and audible report; immediately after which the hip resumed its natural form, and the limb acquired length corresponding to that of the sound one.

The woman suffered little pain or inconvenience during the reduction, and she was put to bed without any bandage, except one around the legs, to keep them together.

6. Has had an uneasy night from having been

teased with flying pains about the belly. There is a slight discharge from the genitalia.

9. Has less pain in the belly. The discharge has ceased. Her clothes were put on to-day.

11. By her own wish she returned home to-day, but went to bed on account of her weight and unwieldiness.

A fortnight after her return, whilst moving herself, "springing," as she called it, from one side of the bed to the other, the bone again slipped out, but she replaced it by straightening herself. In a fortnight from this time she was delivered, and had a comfortable labour.

When she got about she found herself a little lame, which she had not been before. She now (November) limps in walking, and sinks a little as she bears on the right leg. The right trochanter is more full and prominent than the left; its neighbourhood is tender; and when struck slightly, so as to press the head of the bone into the hip-pan, she winces as if there were some inflammation of the joint.

Remarks.—This is a very remarkable and interesting case, and the discrepancy between the mother's statement, that her daughter's right leg was always shorter than the other, whilst the patient herself says that she was never conscious of such shortness, nor was ever lame up to the time of her admission, is very striking. It is probable, however, that the daughter's account of herself is the more correct of the two, and, therefore, rather to be relied on; otherwise, we are compelled to believe there must have been some disease of the hip-joint, by which the cup of the acetabulum had been shallowed, and its circumference enlarged, so that the head of the thigh-bone could be easily thrown out of it. Of this, however, there was not the least evidence from the statement of either mother or daughter.

It is very probable, as the patient is now of a loose, flabby texture, that she was in much the same condition at fourteen years of age, when the dislocation seems first to have happened; and it is, therefore, likely that the ligaments were either weak or lengthened, or both, which, by allowing unnatural freedom of motion of the bone in its socket, would predispose to its escape from it.

Under such circumstances, it does not seem improbable that the account she gives of the mode in which the displacement first happened is correct. She had laced herself so tightly that the spine, instead of bending upon itself as she dropped her hands to reach her boot, moved only as a whole upon the head of the thigh-bone, and she was "obliged to screw herself very much on her right side." She would necessarily, in this position, bend her knee and incline it inwards to get her toe into the boot, and thus the head of the thighbone would be inclined more to the outer and back part of the capsular ligament of the hip-joint; and then, in the effort to straighten the leg, and thrust the foot into the boot, the resistance it afforded acting upwards, would, with a relaxed and weak capsular ligament of the hip, thrust the head of the bone through its hind part, either upon the dorsum ilii or into the ischiatic notch. The sudden snap she heard can only have been caused by the escape of the head of the thighbone into the notch, and the pain she suffered arose from the pressure it made upon the sciatic nerve as it left the pelvis.

The almost immediate return of the bone to its socket as she raised herself up, though doubtless a very rare occurrence, is neither impossible nor improbable. That it did so more than once in some of the subsequent displacements of the bone, and almost without her cognizance, seems to be certain. And it is not improbable that, on her suddenly raising herself, the iliacus and psoas muscles might act violently and restore the head of the bone to its socket: for, if the reduction of a dislocation be set about immediately after its production, it is no difficult matter to effect it even when at the hip-joint, of which a good instance is afforded by the case I have mentioned in my translation of "*Chelius's Surgery*," in which the late Mr. Liston reduced a

dislocation on the dorsum illi, which had happened only three minutes before, by fixing the patient's pelvis with one hand, whilst with the other he extended and rotated the thigh.

The recurrence of the dislocation thrice afterwards was only consequent on the displacement having once happened, the rent in the capsule of the joint having been either not at all or not fully repaired. The appearance and posture of the limb on the patient's admission into the hospital, when the accident had occurred the fourth time, distinctly showed a dislocation into the ischiatic notch; but the great freedom of movement of the thigh-bone at the hip, which did not agree with one of the marks generally laid down as indicative of this dislocation, namely, immobility, might have thrown some doubt on the case had I not seen a like dislocation in a strong, healthy man, in whom, for the first few hours, the motion at this joint was so little interfered with that I almost doubted of the accident, and delayed attempting reduction; however, on the following day the hip was almost completely fixed, and this, the only wanting characteristic of the injury, being then present, I made use of the ordinary means, and reduced the dislocation. The remembrance of this case, therefore, put aside hesitation in deciding upon the nature of the accident.

It now became a question whether, considering the advanced stage (eighth month) of her pregnancy, the violence necessary for the reduction of the dislocation could be borne by this delicate young woman without risk of bringing on premature labour, and whether it were preferable that she should undergo this risk rather than be subjected to the inconvenience of an unreduced dislocation. This, to be sure, was only a choice of evils; but as the difficulty in reducing the dislocation would be considerably increased, and perhaps its replacement might not be effected if the attempt were put off till her recovery from her confinement, and would, therefore, involve a delay of two or three months, it was thought best to put the case plainly before the patient's relatives, and act according to their decision; which being done, they determined that the reduction should at once be attempted.

On account of the woman's pregnancy it would have rendered her in a worse condition had bleeding, nauseating doses of antimony, or other means of lessening her powers been resorted to, as usual, to facilitate the reduction; they were, therefore, not had recourse to.

Being desirous to make use of as little violence as possible in attempting reduction, I determined on trying Morgan's method of extension of the leg with the foot in the crutch, although I scarcely dared hope it would be successful, and had not yet had any personal experience of its efficiency.

The mode in which this operation was performed has been detailed above, and I have only to add that the foot being made the fulcrum upon which the long lever was to be made to act so as to lift the head of the thighbone out of the ischiatic notch, it was necessary that it should have a firm support to prevent it yielding, and that this was effected by jamming the foot in firmly between the outer fore part of the pelvis to the right of the pubic symphysis, and the inside of the upper part of the shaft of the thighbone. The leg was drawn a little downwards and inclined across the other limb, so that it acted powerfully to lift the head of the bone out of the notch; and immediately this was done, the iliacus and pectineus pulled it into the hip-pan. The object of the transverse bandage around the pelvis was to counteract it together with the upper part of the thigh, being forced to the right side, which would have relieved the thigh from the force intended to be applied against it.

The result of this proceeding was highly satisfactory; the reduction was effected in a very few minutes and with little violence, and the bone returned to its socket with a sufficiently distinct report as to preclude all doubt, had there been any, of the previous nature of the accident. By her own wish, at a week's end, she left the hospital, but a fortnight after returning

home the bone was again displaced, whilst moving in bed; but on this, as on all the other occasions, except the fourth, was restored by her own effort.

When I saw her again, nine months subsequent to her confinement, she had not had any recurrence of the dislocation; but she limped a little in her gait, and flinched when the head of the thighbone was pressed into the acetabulum; whether this depended on rheumatism or any other cause was not very apparent.

DISLOCATION OF THE RIGHT THIGHBONE BACKWARDS AND UPWARDS UPON THE DORSUM ILLI, TWENTY-ONE TIMES.

Eliza Goddard, aged thirty-six, admitted into Dorcas's Ward Jan. 6, 1847, at eleven P.M. Whilst pulling off her stocking this evening, on going to bed, had dislocated her right thigh-bone on the dorsum illi, for the nineteenth time within the last twelve years. The accident first occurred on the 1st of May, 1835, in consequence of her slipping down on a piece of orange-peel. It remained unreduced till the 29th of the same month, when it was replaced by Sir Astley Cooper with pulleys, after an extension of four hours and a half. The second time the dislocation was produced in stooping; and was reduced by Mr. Callaway with the pulleys. The third and fourth time it occurred as she was sitting down; reduction by pulleys; third time by Sir Charles Bell, fourth time by Mr. Callaway. The fifth time it was displaced whilst stooping, and the sixth as she slipped in going up stairs carrying water. On both these occasions the bone was replaced by Mr. Bramsby Cooper with the pulleys. The seventh dislocation was produced by her shoulders being violently shaken, and was reduced with pulleys by Mr. Callaway. She slipped down and occasioned the eighth displacement, which was reduced in the same way by Sir Charles Bell. Having dislocated the thigh the ninth time, as she was sitting down, it was reduced at her own house by Mr. Renwick, who made her stand up behind a chair, and whilst she supported herself on its back he took hold of her foot, bent the knee, and, forcibly rotating the leg outwards, the head of the bone immediately moved into the socket. The tenth dislocation happened in stooping, on which occasion she was brought into Elizabeth's Ward, April 27, 1837, and the reduction was effected by Mr. Tyrrell with pulleys. She remained in the house till the 27th of June following. The following eight times the bone was dislocated by turning in bed, kneeling, stooping four times, and slipping down twice. The reduction on each occasion was effected by pulleys, and at Guy's Hospital, except once, at home, by Mr. Callaway. She says that when she is much agitated, or when her bowels have been relaxed for two or three days, she expects the dislocation will recur, and that it does without her making any great exertion. My dresser, Mr. Leeson, who in the afternoon of this day had assisted me in Judge's case, thought he would try the same mode of reduction with his foot in the crutch, and succeeded without difficulty. After this she became night-nurse in the hospital for a short time, but soon left, and returned home.

March 5: Whilst stooping she dislocated the thigh the twentieth time, but had nothing done till March 16, when she was readmitted into Dorcas's Ward, and the dislocation was again reduced by Mr. Leeson, with the heel in the crutch, the bone returning with a snap. Two nights after, whilst in bed, the twenty-first dislocation occurred. Extension, with the foot in the crutch, was again tried, but did not succeed. For some reason which I am not aware of, being absent from illness, no further attempt was made till the lapse of ten days, when extension was made with pulleys, and in vain; but a week after the dislocation was reduced, with the foot in the crutch, by Mr. B. Travers, without difficulty.

November. I saw her, and she has not had any recurrence of the dislocation since March last.

Remarks.—The recurrence of dislocation of the jaw and at the shoulder-joint is far from uncommon, though I do not recollect an instance of its

so frequent repetition in any case as in that just mentioned, which is still more remarkable, as the hip-joint, from the great depth of its cup, and the constant bracing of the large muscles, which keep the head of the thigh-bone close up to the corresponding articular surface, is the least liable to dislocation. The frequent recurrence of the accident, and the ease with which it happened, in this patient, can only be accounted for by presuming that the rent in the capsular ligament, probably at first large, was increased by every successive dislocation; and it is not at all unlikely that the round ligament was also at one time or other torn through. Generally, the reductions were effected without much difficulty. Not having been present, I am at a loss to understand under what circumstances the bone on the last occasion could not be reduced as readily as before in the first two attempts, more especially as it returned easily on the third effort. DISLOCATION FORWARDS AND DOWNWARDS INTO THE THYROID HOLE, WHICH SLIPPED DURING REDUCTION UPON THE PUBES.

John Colebert, aged fifty-five, admitted into George's Ward, Sept. 8, 1847. Two days ago, whilst at work in a gravel-pit, was overwhelmed by an earth-slip, and had his left thigh-bone dislocated into the thyroid hole. On his admission, the usual signs of the accident were distinctly apparent. After bleeding to faintness, the patient was laid upon his right side; extension downwards with pulleys was then made, and a bandage having been passed round the thigh close to the crutch, the upper part of the thigh was drawn upwards and backwards, with reference to the trunk. In doing this, the head of the bone moved and got upon the horizontal branch of the pubic bone, producing the dislocation forwards and upwards. The patient's position was then altered; by laying him flat on his back, and the pelvis being steadied, the head of the bone was pushed outwards by the hand till it dropped into the hip-socket. The reduction occupied about half an hour. This patient was admitted under my colleague, Mr. M'Murdo, who kindly allows me to make use of it.

Remarks.—The conversion of one form of dislocation of the hip into another, during the attempt at reduction, is mentioned by surgical writers, but I have never seen it, that I recollect. The dislocations of the thighbone backwards are those in which such conversion is most likely to occur, as it generally does.

Of the dislocations forward, changing, I know but of two instances—the present case, in which the head of the bone rose upon the pubes; and another, which Mr. Green related to me of a dislocation into the thyroid hole, which, during the reduction, slipped back into the ischiatic notch. This change of place may be caused by a wrong direction given to the extension made on the upper part of the thigh; or the patient, in striving to relieve himself from the pressure made by the extension, may twist his pelvis in such way as to dispose the head of the thighbone to change place without returning to its socket. Of course, whatever position the head of the bone may assume, the reduction of the dislocation must be attempted with reference to it.

I may take this opportunity of stating, in reference to the age at which dislocation of the hip may occur, that Mr. Stanley told me of a case of dislocation into the thyroid hole, of a man of ninety-three, which was reduced and did well. Mr. Benj. Travers had, in this hospital, a case of dislocation into the ischiatic notch, in a boy of five years old, which also was reduced.

M. Vender, a person of great property, has lately returned from Paris and has left the sum of £10,000 for founding an asylum for insane persons, advanced in life, of the liberal professions; such as physicians, advocates, and servants.

The Baron de Choiseul has resolved to found, in the village of Digoïn, a hospital, which he intends to build and endow.

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 XXIV.

GENTLEMEN,—In the last lecture a general description of the arteries was given, and the process by which nature repairs the injuries to which they are liable was dwelt on. We may now proceed to inquire in what way the indications mentioned for the treatment of a wounded and bleeding artery may be best fulfilled. A description of the mechanical appliances of which the surgeon is accustomed to avail himself must here be given. With the form of the tourniquet you are all familiar, as a temporary expedient applicable in hemorrhage from the limbs, to which its operation is limited. It consists of a band securing itself by a buckle, a pad, and two brass frames, the upper one of which is furnished with two rollers, and the lower with four, over which the band is passed, and by means of which a free action is facilitated as often as the screw is turned which tightens the bandage round the limb. The undue and painful pressure of the metal of the instrument is obviated by the pad, over which the buckle is fastened. By the use of this instrument the exact amount of pressure desirable may be secured to any given part of the limb by the action of the screw and pad: it may be left slackly round a limb and tightened at a moment's notice; and, as it can be maintained at a proper degree of tension without the aid of an assistant, it is a most valuable instrument to the surgeon. I have said that its application is restricted to the limbs, and only temporary in its use: the pressure necessary to stop the flow of blood through an artery has an equal effect upon the return of blood through the veins, which cannot be permitted long on account of the risks of mortification. You may have witnessed the security from dangerous loss of blood, with which by its aid the operator can proceed to amputate a limb, and afterwards take up the large arteries. You may have also seen the situation of the smaller arteries disclosed upon the momentary relaxation of the instrument, and the facility with which the flow of blood has been again stayed while the operation has been carried on to its conclusion. Sometimes, after a severe wound of an artery, a few minutes must elapse before the surgeon can adopt the requisite measures for securing the artery. In such cases the tourniquet is of great importance, as by the pressure it produces the supply of blood to the orifice is at once cut off. In hospitals, where the aid of a trusty assistant is constantly at hand, the tourniquet is less frequently employed. In this hospital it is seldom used in amputations; pressure is made with the fingers; the blood is less turgid, and flows less freely, when the artery is in this manner alone subjected to compression. But whether employed or not in the first stage of hemorrhage, other measures soon become absolutely necessary. A far more important and, indeed, indispensable means of permanently stopping bleeding is the *ligature*. When the ligature is placed round the mouth of an artery, the hemorrhage instantly ceases, and contact is maintained between the opposite sides of the artery until they have grown together and effectually secured the patient against the risks of bleeding. The ligature is by far the safest plan of preventing bleeding from large arteries. The pressure it causes is applied in a more direct manner, and on no larger surface than is necessary. Any large artery may be tied immediately it is divided, while to many of the most important the tourniquet is inapplicable. You must always bear in mind the maxim which has become established in surgery, to tie arteries separately. No nerve, vein, or portion of the flesh should be included within the noose. Where this rule is neglected, not only

is great pain caused to the patient, but the ligature itself is liable to become loose as the flesh or other substance sloughs; and further, the pressure by which the internal coats of the vessel are to be cut through is entirely prevented, and the first purpose of the ligature unobtained. In tying an artery the extremity of the vessel is to be taken hold of by a pair of artery-forceps, or by a tenaculum: the former always when the vessel is large and prominent. Just below the end of the instrument by which the artery is held an assistant should place a ligature, not too thick, in the form of a noose, round the artery. The noose is then to be drawn tight, taking care that it does not rise above the mouth of the artery, and a knot is made.

More than one ligature on that side nearest the centre of circulation will be necessary if the artery is beyond a certain size, as the blood makes its way through other communications into the continuation of the vessel nearest the wound. Generally speaking, when a large artery is not entirely divided, but only punctured, it is best to expose the vessel first by incision, and to place a double ligature under it, with an aneurism needle, applying one portion above the wound, and the other below it. The flow of blood through the anastomosing branches is thus prevented. The time of separation of ligatures varies with the size of the artery from five to twenty-one days. When they remain attached beyond a certain time, they should be gently twisted upon dressing the wound, and in this way they will soon be detached. Compression is a plan adopted when the escape of blood is not from any large artery or arteries, but from a great number of smaller ones, and where the ligature is on this account unavailing. It is made by bringing the opposite sides of a wound together, and applying over it a compress and roller. It is not adapted to the case of hemorrhage from a large artery, except in those instances where the vessel is in immediate contiguity to a bone, against which it may be compressed, as in bleeding from the temporal artery, or where the wound is very small. Small reliance can be placed on this as a means of suspending or preventing hemorrhage, as the compress is very apt to slip off, or get loose; the wound thus requires constant watching. The next indication is the removal of foreign bodies from the wound, and is of great importance, as, however neatly the external surfaces may be brought together, if an extraneous body remains, great pain and swelling, with redness, suppuration, and sloughing of the parts, will follow. That surgeon has no excuse who neglects to provide for the fulfilment of this indication in an incised wound; the parts can at the first be easily examined, and the foreign body removed, without great trouble to the surgeon or pain to the patient. It may be as well to add that your patient would have a right of action against you at law for the damages he might sustain, should you allow a feeling of supineness to restrain you from your duty. Although extraneous substances are very commonly met within contused and lacerated wounds, and incised wounds are generally free from such complications, nevertheless, the surgeon often has to deal with wounds caused by glass and other brittle articles, which break in the wound, and leave a portion of the material behind.

The presence of such substances is a source of great irritation, and the removal should immediately follow the stoppage of bleeding. The blood itself is never regarded by surgeons in the light of an extraneous substance when present between the surfaces of wounds, the removal of which is necessary in order that union by the first intention may take place. The third and last indication to be mentioned is to keep the surfaces of the wound in which bleeding has been stopped, and from which foreign substances have been removed, in close contact, so as to promote what is called *union by the first intention*. Two processes are recognised by surgeons by which wounds become healed. In one pus is produced, and granulation and new skin are formed; in the other it is entirely successful, no

suppuration whatever taking place. The great advantages of this last method are the rapidity of the process, the exemption from the pain incident to exposure of raw surfaces, and the greater permanence and soundness of the cure. To these may be added the recommendation of freedom from the delays and pain of suppuration, and the prevention of the unsightliness of a cicatrix. It is observed, that the raw surfaces of an incised wound, when fairly brought together, have a strange tendency to unite after a certain time. This disposition of wounded surfaces to grow together is susceptible of some remarkable illustrations. Baron Larrey relates a case in which the nose of a person was depending only by a slight portion of the skin from his face; his assistant was about to cut through the connection, when Larrey interfered, joined the separate parts, and succeeded in saving the organ. Such cures are not rare, and are well authenticated. In promoting this process the office of the surgeon is simply to secure the conditions under which Nature advances her work. These are very simple—the edges of the wound must be brought and kept accurately together; at the same time the general state of the system must be attended to. The process of union by the first intention is one that should be well considered, as one of the most important doctrines of modern surgery. When the vessels of a wounded surface have ceased bleeding, the extremities become impervious to the blood itself, which can no longer traverse that course. It is then that coagulating lymph or fibrine is effused, to be generally absorbed and become the bond of union between the living parts. This is the first and most simple connection that takes place between the two sides of a wound. The blood, which sometimes intervenes, has been classed among extraneous bodies; its presence hinders the progress of this most desirable kind of union, and the best surgeons now regard its removal as an important indication. When the agglutination, which takes place shortly after the sides of a wound have been brought together, has been completed, vessels extend into the coagulating lymph, which promotes an intercourse between the two sides of the wound. Through these newly-formed channels of communication, which penetrate the lymph effused on the divided surfaces, the blood flows freely. We are not able to explain with scientific clearness the precise manner in which this process is brought about—whether the new vessels are extensions from the old ones, or whether they arise in the uniting medium.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D.
Paris, &c.

SECOND SERIES. CHAPTER IV.—(continued).

Besides the substances which we have enumerated as frequently met with in expectoration, foreign bodies are also found, having been inhaled from the atmosphere, or having passed into the respiratory organs instead of being conveyed to the stomach, to which they were destined: thus food or medicines may be rejected; amongst the latter some kermes minerals, for instance, communicate a particular colour to expectorated matter, a fact which the practitioner should be aware of, in order that he may not mistake for the effects of disease, the peculiar action of some drugs. Let us now inquire into the diagnostic value of expectoration in various maladies.

In acute laryngitis, simple or puriform mucus may be rejected: when a certain quantity of pus is suddenly thrown up, it points to a submucous abscess of the larynx; false membranes secreted in the larynx may also be seen, as in variola, for

instance. In chronic laryngitis, blood, expectorated in small quantities, indicates an ulcer of the mucous membrane; if the amount of blood be at all considerable, its source is not in the larynx. A chronic form of croup has been described in which the patients cough up false membranes, and this circumstance often exercises a most favourable influence upon the progress of the malady. Polypous concretions, and vegetations formed in the laryngeal cavity, have been rejected; also pus from an abscess developed in the organ, as in a case published by Dr. Pravaz, of Lille: a tumour, soft and fluctuating, had been previously recognised by the introduction of the finger, and disappeared after the sudden expectoration of a certain quantity of purulent matter, with which two small concretions were also thrown up. The same author relates in his inaugural thesis a case in which two hydatids were found in the ventricles of the larynx, but we have never ourselves observed any instance of the kind.

Acute bronchitis is not in its first period attended with expectoration; but, as the disease progresses, the cough becomes loose, and a colourless, transparent mucus, more or less viscid in its nature, is rejected, occasionally streaked with blood if the cough be violent. This matter gradually becomes less transparent, and acquires a puriform appearance, decreasing at the same time in abundance, in proportion as the case progresses towards a favourable termination. In some patients the expectoration is puriform from the first, in others it never assumes that character. Occasionally, even the cough is dry from the beginning to the end of the disease. In chronic bronchitis, the expectoration usually consists of a slimy fluid, more or less puriform in appearance; when dyspnoea is present, this matter is very viscid, and generally spumous. It is sometimes constituted by a homogeneous liquid, which bears the greatest resemblance to the expectoration in consumption, from which neither chemistry nor the microscope is able to distinguish it. The abundance of the rejected fluids may be very considerable, particularly in the aged, the general condition of the system suffering at the same time much less than it would, *a priori*, seem rational to suppose. The odour of the matter is not characteristic, and may accidentally acquire great fetidity. In some cases of chronic inflammation of the bronchi, no expectoration is observed; in others a peculiarly granular mucus is thrown up, which has a remarkable tendency to solidity; and in both these cases, pulmonary emphysema often follows bronchitis.

During the first two days of pneumonia, characteristic expectoration is seldom noticed, but after this period the rejected matter is viscid, transparent, spumous, and rusty in colour; as the disease advances, this fluid becomes darker and less frothy, and gradually resumes its natural hue if the malady terminates favourably; if, on the contrary, it becomes darker and more viscid, or brown and more fluid, the prognosis acquires greater gravity. It has been often said that where the colour of the expectoration resembled that of the juice of stewed prunes, the circumstance indicated diffused suppuration of the lung; we believe that it points more to increased severity of the case than to that particular fact. In the aged, the expectoration is often of a reddish grey, and may completely be suspended some time before a fatal issue, either from a real cessation of the morbid secretion, or more frequently from loss of power to reject it. In the pneumonia of children no expectoration takes place, and when this disease is a complication of other ailments, consumption for instance, the rejected matter is often deprived of its characteristic appearances. M. Remack, of Berlin, states ("Archives," January, 1846), that in the expectoration of pneumonia, small concretions are rejected, constituted by fibrine, and incarcerating purulent corpuscles in their network; the shape of these concretions is the same as that of the bronchi: we have several times assured ourselves of the

accuracy of this observation, which may assist considerably the diagnosis of doubtful cases. Chronic pneumonia presents no special expectoration.

Oedema pulmonis and emphysema are not attended with any characteristic appearances in this respect. At the beginning of attacks of asthma, the expectoration is usually suppressed, and returns at the close of the paroxysm. Pulmonary apoplexy usually causes hemorrhage and the rejection of a small quantity of blood, but not constantly. In gangrene of the lung, the sputa are thin, dark, and extremely fetid.

Pulmonary consumption at its various periods occasions an expectoration, the characters of which it is important to be well acquainted with. Mucus, pus, blood, concretions, &c., may be rejected, and their relative signification should be clearly understood. During the first period of phthisis, the cough is frequently dry, or followed merely by the expulsion of pure mucus; blood is often rejected at this period, with the characters which we have elsewhere described. Calculi, also, may be expectorated, formed of crude tubercular matter. When softening occurs, the appearances are usually those observed in bronchitis, the sputa being sometimes streaked with a substance of a yellowish, dead-white colour, supposed to consist of detached tubercular secretion; also, occasionally, granular agglomerations of tubercle are found floating in the mucus; hæmoptysis may occur at this stage; but when cavities have formed in the lung the appearances are more characteristic. A large tubercular mass may be expelled suddenly, but in general its elimination is gradual. The discharge is thus formed of three parts, viz., bronchial mucus, tubercular matter, and a purulent fluid secreted by the walls of the accidental cavity. According to the relative proportions of these three elements the expectoration varies in its characters. In most subjects it separates into two layers—a semi-transparent, gummy fluid, and a more opaque, solid matter. The latter may be suspended in flakes, or float on the surface of the fluid in small round patches (nummular expectoration). At a still later period of the disease, the semi-transparent matter is no more to be found, and the matter consists merely of a thick, purulent fluid. At this stage of phthisis, hæmoptysis is more rare than in the first periods. The odour or taste of the expectoration is not characteristic, in spite of the Hippocratic aphorism, that in consumption it is at first salt, and afterwards sweetish. The quantity rejected varies greatly, not only in several, but even in the same individual. Shortly before a fatal termination the expectoration may be suppressed, or become looser from the enlargement of the caverns. Microscopic examination shows in the sputa of consumption the presence of pus and blood corpuscles, of epithelium, of false membranes, and of pulmonary tissue. When a piece of tubercular lung is examined with the microscope numerous corpuscles can be seen, with the particular form described in the first series of these lectures. But it is very uncommon to meet with these special granulations in the sputa, being, as it would seem, dissociated before they are expelled from the chest by the efforts of cough. It has been said, and it is quite true, that tubercular sputa sink in water, and burn with a flame when desiccated; but these characters cannot distinguish them from the sputa of bronchitis, because they result from the presence of pus, which may exist in one disease as well as in the other.

When hydatids form in the pulmonary organs, they may be expelled by expectoration. The sputa of cancer of the lung are said to resemble gooseberry-jam in colour and consistency, but this fact requires further confirmation.

In diseases of the pleura, the expectoration is usually absent, or resembles that of bronchitis; but pleuritic effusions may suddenly be discharged by the bronchi, after ulceration of the surface of the lung. True pus is thus rejected, and penetration of air into the pleuritic cavity soon communicates to its contents a fetid alia-

ceous odour. The consecutive discharge may continue for a considerable time, and may be recalled after temporary cessation by change of position of the subject, by which a change is also effected in the relative situations of the pleuritic effusion and of the pulmonary fistula. Even after long duration, these cases are susceptible of recovery.

In diseases of the pulmonary organs, the sensibility of the patient may be modified, and furnish signs to the diagnosis.

Many acute or chronic diseases of the larynx may exist without pain, and present a striking contrast between the great change of the voice and the total absence of suffering. When pain accompanies 'ulcers of the larynx, it is more marked when the sore occupies the vocal chords, or is situated above them, than when it is placed below the ventricles. Affections of the trachea are seldom painful. Acute bronchitis is usually attended with a distressing sense of heat within the chest, which increases with the cough, or with the inspiration of cold air. This pain may occupy the sternal region, or be complained of between the shoulders. Pneumonia, like other inflammations of parenchymatous organs, is seldom of itself a painful disease. "Pulmonum inflammatio," says Boerhaave, "plus affert periculi quam doloris;" a perfectly accurate remark, the stitch in the side, which so usually accompanies pneumonia, being in most cases due to pleuritic complication. Many consumptive patients suffer very little, others, on the contrary, are frequently troubled with pain, due to the participation of the pleura in the disorder—a fact demonstrated by the adhesions found within the thorax of these subjects on *post-mortem* examination. Some patients feel a sort of tightness round the chest, and are fully aware, from the nature of the sensation, that their respiration is not complete; in others a sense of uneasiness is complained of in the superior part of the chest; and in these cases, on dissection, caverns are often found in these regions, separated from the pleura by very thin walls. Occasionally percussion of the chest, and even auscultation with the stethoscope, cause pain in phthisis. Pain between the shoulders is very generally looked upon as a sign of consumption; we believe that the importance of this symptom has been much overrated; it seems to us to be merely a muscular pain, due to debility, and observable in most cases of chronic disease; it is, for instance, almost constant in chlorosis. Hydatids and cancer of the respiratory organs are productive of suffering only when the pleura is affected. Acute pleuritis seldom exists without pain; its intensity is variable from a trifling to a most intense stitch in the side. It is usually seated below the breast on the affected side, and increased by motion, pressure, cough, or inspiration. It may extend to the whole thoracic wall, or be limited to the cartilaginous edges of the ribs; in diaphragmatic pleurisy, it spreads to the epigastrium, and even to the abdominal parietes. An ingenious explanation of this pain has been offered by Dr. Beau, and seems confirmed by anatomical investigation. That gentleman attributes it to inflammation of the intercostal nerves, which, in the posterior third of their course, lie in close apposition with the pleura. Irritation of a nerve, causing pain to be felt in the region of its terminal distribution, excitement of the posterior part of these nerves in pleurisy, naturally occasions a suffering which is referred to the anterior region of the thorax, immediately below the breast.

In our next lecture we will study the physical signs of thoracic disease.

FRENCH HOSPITALS.—The budget of the Parisian hospitals has been voted by the municipal Council for 1848. The cost for the maintenance of these charitable institutions is about 46,480,967 francs.

The Russian Government has resolved forthwith to erect seven new lunatic asylums, viz., at Moscow, Kasan, Odessa, Riga, Wilna, Charkow, and Kiew.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of Jan. 24; M. POUILLLET in the Chair.

HÆMATOLOGY.—M. Poggiale and Dr. Marshall forwarded to the academy the analysis of the blood of a patient affected with encephalitis, consequent upon erysipelas of the face. The blood was removed at the same time from the temporal artery and from a vein of the arm, and the two liquids were separately examined. The following was their relative composition:—

	Arterial Blood.	Venous Blood.
Solid matter ..	177	181
Water ..	822	818
Water ..	822	818
Fibrine ..	6.17	6.08
Albumen ..	66	61
Globules ..	97	106
Fatty matter ..	1	1
Salts ..	6	6.8

INSALUBRIOUS ARTS.—A paper was received from M. Leclaire recommending the substitution in the arts of colours fabricated with preparations of zinc, instead of those containing salts of lead or copper.

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

State of the Brain in Insanity.—Dr. Seymore, in his work on Mental Derangement, makes the following remarks:—"Where perception and volition are sharpened beyond all measure, there are remedies which quiet pain and diminish sensibility, in many cases not absolutely removing the pain, but preventing the brain from perceiving it in a highly-aggravated form; thus, in paroxysms of gall-stones, or sciatica, or in nephritic colic, the pain is removed partly by the solution of spasm afforded by the remedies, partly from the increased sensibility or perception of the brain being diminished. In inordinate actions, also, the causes being investigated, appropriate remedies may be found, such as the shower-bath, metallic tonics, and the like. Mental derangement is one of these forms of increased, or irregular, or diminished perception and volition, and it exists in some instances secondarily to diseases of organs at a distance, as of the uterus or stomach, or in cases of fever from the poison of the atmosphere, or putrid miasmata from different sources. The brain, like other organs of the body, is liable to inflammation, and which requires to be treated as inflammation is treated in other parts of the body; and it is singularly liable, from the particular arrangement of its bloodvessels, to disturbance of the circulation; either the blood not finding its usual ready flow into the right side of the heart, from some obstacle in the complicated arrangement of its veins (sinuses), or from disease of its arteries, which unite (anastomose) one with another in a most remarkable manner. The diseases of the coats of these vessels give rise to some of the most serious diseases of the brain. As life advances, that portion of the human body most influenced by physical laws tends first to decay. The elasticity of the larger arteries becomes diminished by, first, soft fatty matter (termed atheroma) deposited under the inner coat, or by bone itself. The tube, previously elastic, and easily and equally distended by the current of blood, becomes unequally distended, and even brittle in parts, so as to give way under any considerable or sudden acceleration of the circulation. When such an accident occurs in the brain, blood is thrown out, the patient becomes senseless, and, when proper remedies have been applied, awakens as from a trance, with much confusion and distress, and often pain in the head, and finds the arm and leg, on the opposite side to that in which the vessel had burst, deprived of motion, and often, in a great degree, of sensation."

Lunatics in England and Wales.—According to the estimate formed by the commissioners for

the 1st of January, 1847, which does not include imbecile persons, whose infirmity has been co-existent with loss, or is the result of the decay of natural powers, the following is the number of lunatics in England and Wales:—

	Persons.
1. In the county asylums, hospitals, and licensed houses, 8674 private patients, and 9662 paupers; together ..	18,226
2. In Bethlem, and in the naval and military hospitals ..	606
3. Paupers in poor-law unions and places under local acts ..	8,986
4. Paupers in Gilbert's unions, and other places not in union ..	176
5. Also 307 of 642 single patients, found lunatic by inquisition (236 being in licensed houses) ..	307
6. Other single patients in private houses, under the charge of persons receiving profit ..	130
7. The excess of pauper patients in workhouses, &c., estimated by the visiting commissioners as, at least, one-third over the number returned by parish officers ..	8,053
8. Criminals in gaols ..	32

26,616
Reckoning 12,397 for England, 8413 for the pauper lunatics in Scotland, with the private patients in each country, there are at least 40,000 persons afflicted with insanity.

Hysterical Mania.—There is a species of aberration of the intellect," says Dr. Reid, in "The Journal of Psychological Medicine," occurring in young females, which evidently is complicated with hysteria; the peace of a whole family is for the time totally destroyed by the whims, extravagancies, perverseness of temper, and violence of the patient. Some of these cases border closely on insanity, but others, when protracted beyond a certain period, gradually merge either into mania or melancholia, and it then becomes absolutely requisite to remove them from the society of their friends, and to place them under the charge of some practitioner who is experienced in the treatment of such cases. They are often termed nervous disorders, but these, unless closely watched, and carefully treated, are prone to degenerate into more fixed and permanent affections of the brain. The following may be taken as one of the above description of cases. Miss —, aged fifteen, of tall, robust frame, menstruating irregularly, had laboured under various forms of hysteria for a short time past, and complained of violent pain in the uterine region, tympanitic distention of the abdomen, torpid bowels, headache, sense of suffocation, and of such a constant feeling of restlessness that it was difficult to keep her in the room; she gradually became extremely violent, and her long-continued fits of screaming often alarmed the whole neighbourhood; on two occasions it was found requisite to put her under restraint. The medical attendant was nearly worn out by the constant attendances required day and night to introduce the catheter, &c., but he almost invariably found that the bladder contained little or no urine, although the attendants asserted positively that none had been passed naturally. When I saw her I felt convinced that such must have been the case; her pulse was natural, her strength good, and there were no symptoms which must have existed had the assertion been true. The greatest distress was occasioned in the family by the state of the patient during two months of violence, as they were unwilling that she should be separated from them; at the end of this period a sort of stupor came on, and continued for a week, on recovering from which, the catamenial function continued regularly, symptoms of mental recovery became stronger, and for some years past there has not been the slightest appearance of a similar attack. I should add that, on very close watching, it was discovered that the patient had regularly passed urine, but had contrived to

avoid the notice of the nurse for some days at such times.

Urea in Perspiration.—Professor Landerer, of Athens—quoted in "The Monthly Journal of Medical Science,"—says, the quantity and condition of the secreted urine depend on the quantity and quality of the fluid ingesta, and the greater or less transpiration. The urine consequently becomes more concentrated during summer, in warmer countries, than in winter, and this may be discovered by the increase of the specific gravity. The increased quantity of salt in the urine, dependent on this concentration, is probably the cause of the numerous calculous affections in warm countries; while the vegetable nourishment, and the use of fruit, especially grapes, is probably the cause of the rarity of sand and gravel. Almost all strangers in southern countries become affected with a peculiar exanthema, from the irritating effect produced on the mucous and sebaceous follicles, by a portion of the solid contents of the urine finding its way to the skin. Dr. Landerer, to convince himself of the presence of these salts, collected the washings of flannels and shirts—a fluid possessing a striking odour of perspiration, of a very salt taste, and slightly acid properties. This fluid, evaporated to a yellow syrup, deposited, after exposure to cold for some days, a granular mass of phosphates; the remainder, digested in alcohol, formed a yellow solution, which, on spontaneous evaporation, left a substance possessing a strong odour of perspiration, and a sweet taste. This, dissolved in water, and decomposed by diluted oxalic acid, deposited, after thirty-six hours, a precipitate of small crystals of oxalate of urea. To make the presence of urea more evident, these crystals were dissolved in water, and the solution decomposed by carbonate of lime, to separate the oxalic acid from the urea. The supernatant fluid was then evaporated to dryness, and the residue dissolved in boiling alcohol. This was again evaporated, and a few drops of nitric acid added; from this, after cooling in a refrigerator, crystals of a silky lustre were deposited, which, separated from the mother water, and dissolved in distilled water, possessed a cooling, slightly acid taste, and crackled in the fire. From all these operations, it was believed that urea was present in the perspiration, and that muriate of soda, traces of sulphates, acetates, and lactates, osmazone, and a clear substance, easily soluble in ether, were also present.

Thoracic Aneurism.—The following is the analyses of the mode of termination in all the cases of thoracic aneurism collected by Mr. Crisp in his work on Diseases of the Bloodvessels:—"Of ninety-eight cases of aneurism of the ascending aorta (seventy-six males and twenty-two females) the terminations were as follows:—Thirty opened into the pericardium, six externally, four into the left pleura, one into the right, three into the pulmonary artery, three into the right lung, three into the superior vena, two into the oesophagus, two into the right auricle, two into the right ventricle, one into the left, one into the trachea; seven died from pressure on the trachea and bronchi, six from serous effusion into the pericardium and pleura, two from phthisis, two from syncope and exhaustion, two from coma, one from each of the following: regurgitation into the ventricle, compression of vena cava, of pulmonary artery, cerebral congestion, apoplexy of the lung, distention of stomach, pericarditis, bronchitis, and hæmoptysis; four died suddenly, without rupture of the sac, and in eight the cause of death was doubtful. In forty-eight cases of aneurism of the arch of the aorta (thirty-five males and thirteen females), four opened into the trachea, two into the pericardium, two into the oesophagus, two into posterior mediastinum, two into right pleura, two into the left, two into the bronchus, one into the pulmonary artery, one into the superior vena, one into the lung, one externally; twelve died from supposed pressure on the trachea and bronchi, three from suffocation, two from hydrothorax, and one from each of the following: pressure on the recurrent laryngeal

nerve, pressure on the cava, hæmoptysis, dysentery, serous apoplexy, rupture of the descending aorta, and external violence; and in six cases the cause of death is not stated. Of the twenty-one cases of aneurism of the descending aorta (all occurring in males), four opened into the right pleura, four into the left, five into the œsophagus, two into the left bronchus, and one into the left lung; two died from pressure on the trachea and left bronchus, one from exhaustion and suffocation, one from apoplexy; eight cases are described as aneurism of the thoracic aorta, and their termination not given.

Spurious Menstruation.—Mr. Whitehead says, in his work on Sterility, On examination with the speculum, inflammation or ulceration of one or both labia, or of the cervix uteri, complicated, in some instances, with warty excrescences growing from the cervix, or from some part of the vaginal membrane, vaginitis, &c., was met with in every case, without an exception. Fifteen cases were submitted to this kind of examination at the time the blood was flowing. In not one of these did any fluid whatever escape from the interior of the uterus; the orifice being completely occupied at the time by a plug of transparent mucus. On removing the accumulated secretion by means of a piece of lint, the parts were immediately afterwards covered by a coating of blood, which was distinctly seen issuing from innumerable pores on every part of the diseased surfaces, and soon being in sufficient quantity to trickle down into the speculum. This blood was widely different, in its sensible properties, from that collected in the tube during its introduction, or at the os externum; being more florid, more strongly alkaline, and soon subsiding into a dryish clot, which could be separated from the interior of the instrument in form of a small cake of crassamentum. This was never the case with the former, which remained fluid or soft for a considerable time. The evidence now produced appears sufficient to establish as a general rule, to which I am not as yet acquainted with an exception, that the blood discharged in cases of alleged menstruation during pregnancy is furnished, not by the lining membrane of the uterus, nor by any healthy secreting surface—except sometimes perhaps the inferior part of the inner cervix—but by the lower extremity of the uterus external to its cavity, or by the contiguous vaginal reflection, being in a state of suppurative inflammation.

Oxygen from Chloride of Lime.—Dr. F. Keller remarks, Considering the lower price of chloride of lime, it appeared of some consequence to examine the nature of this hypochloride with regard to the generation of oxygen. One half-ounce of common, somewhat moist, chloride of lime, boiled for some time in two ounces of water, yielded 420 cubic centimetres of oxygen, contaminated with a small proportion of chlorine, but fit for all the usual experiments. An equal quantity of the same chloride of lime, heated with a quarter of an ounce of powdered oxide of manganese and two ounces of water, in a retort, in the sand-bath over the spirit-lamp, yielded 620 cubic centimetres of tolerably pure oxygen. Variations in the proportions of the ingredients yielded results which varied but slightly from those above mentioned. It might be presumed that the oxide of manganese increased the quantity of the developed gas, by having yielded part of its oxygen. But this was not the case. The oxide of manganese can, therefore, only have operated by its distribution among the mass, and by its greater capacity of heat; and any other finely-powdered substance, which cannot easily be decomposed, such as powdered glass, silicious sand, &c., must in its place have done the same; and, in fact, on making use of the latter substances, I obtained the same results, and in some instances, where the heating in the sand-bath was undertaken over a charcoal fire, and only gradually increased, a greater quantity of gas was developed. In several cases, where the gas was received over diluted caustic potash, I obtained from half an ounce of chloride of lime,

on the average, 660 cubic centimetres; consequently, 14,896 grains by weight, or 6·2 per cent. of pure oxygen.

Periodical Asthma checked by the Sulphate of Quinine.—Dr. J. C. Cain, of Charleston, U.S., relates the case of a gentleman who has had, during the last nine years, occasional attacks of asthma (the humid or catarrhal variety). Within the last two or three years the attacks have become more frequent; in several of them the nervous phenomena were strongly marked with sudden accession and equally sudden subsidence of the paroxysms. About the middle of April, of last year, the attacks assumed a regular periodical character—coming on every Monday evening about seven o'clock, and lasting until Friday or Saturday. On Friday, July 9, on the subsidence of one of the paroxysms, the exhibition of the sulph. quin. was commenced in the form of a pill, in the dose of three grains three times daily. At the next periodical return, the attack was postponed at least twelve hours, that is, instead of coming on on Monday evening, it did not come on until after daylight on Tuesday morning. This time the paroxysm lasted only two days, and was slight when compared with those he had previously had. The sulph. quin. was suspended during the two days, and resumed on Thursday. The next Monday, the 19th, the paroxysm did not recur, and the patient felt very well. The pills were continued until the 1st of August; and up to the 10th of October he has not had a return of the disease. The foregoing case presents a striking illustration of the heroic anti-periodic properties of the sulph. quin. Its effect here was similar to that frequently observed in intermittent fever, viz.: first, a postponement of the first paroxysm after the commencement of its administration, a diminution of its severity, and a shortening of its duration; and, second, the prevention of the recurrence of other paroxysms. This is another instance, added to those already accumulated which go to establish the fact that in all diseases, in which periodicity is a natural or accidental element, it is truly a specific.

Sulphate of Iron in Prolapsus Ani.—Mr. Vincent, in his "Observations on Surgical Practice," states that he has of late had great advantage in employing a solution of sulphate of iron, one grain to the ounce, in prolapsed bowels, and that an operation may often be dispensed with, and the patient cured, merely by the use of this remedy. Very lately he has had two cases of the worst sort, one of twenty years' standing, with great protrusion and abundance of bleeding piles, which in three weeks was completely cured. The other came from one of the institutions which offer great pretensions in the treatment of these cases. The patient was very bad, having both internal and external piles, and the bowel descended largely and most readily; he was completely relieved in about a month. Other cases of a slighter kind have been set to rights in a week. The patient should be kept in bed, so that the bowel may be as much as possible in repose, and after it is cleansed out, a small quantity of the injection should be daily thrown up and retained. Balsams are also well adapted to the disease.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ON A REMARKABLE CASE OF PROTRACTED HÆMOPHTYSIS, SYMPTOMATIC OF PRIMARY DISEASE IN THE STOMACH, SUCCEEDING BY VIOLENT EPILEPSY, AND THE RECOVERY OF HEALTH.

By Henry Burton, M.D., Physician of St. Thomas's Hospital.

The history of the case offers a good example of the coexistence of severe gastric derangement with constant headach, copious hæmoptysis, occurring at irregular intervals during four years and three quarters, and with rigid spasm of the lower extremities, followed by the restoration of good health, after the super-venition of a series of violent epileptic fits,

which quickly succeeded the disappearance of the pulmonary hæmorrhage.

The author, after citing the opinion of M. Andral, relating to the influence exerted by different organs on the production of congestion in the brain, and also the opinion of Dr. Copland upon the importance of tracing "the origins and relations of sympathetic and symptomatic phenomena, with reference, not merely to diagnosis, but also to prognosis and treatment," proceeds to describe the case of an intelligent female, aged eighteen years, of a spare habit, and rather under the usual height, who was admitted into St. Thomas's Hospital on the 6th of September, 1843.

She had then been ill with symptoms referable to the chest and abdomen for two years and a quarter, and for two years the abdominal symptoms had been complicated with copious hæmoptysis, partial loss of voice, and an almost total want of power over the lower extremities. She had been confined to her bed during the greater part of her illness, and the abdominal pain had never entirely ceased; the hæmoptysis had recurred very frequently; the uterine functions had been always regularly performed; and, with the exception of the pulmonary hæmorrhage, the patient had never experienced any habitual loss of blood. Copious hæmoptysis recurred seven times after admission in forty-one weeks. The patient returned home in June, 1844, in a much better state of health than she had experienced during the three years preceding, although not entirely cured, and was readmitted a second time in December, 1846, after an interval of a year and a half, with analogous symptoms of gastritis, coexisting with copious hæmoptysis.

After the second admission, copious hæmoptysis recurred three times in thirteen weeks, and slight hæmoptysis daily, until epilepsy supervened, when it ceased entirely.

The author reviews the circumstances which biased his judgment in the early as well as final treatment of the case, and endeavours to show that the hæmoptysis was dependent on a primary disease of the stomach, and not of the lungs; he notices the inefficacy of the ordinary remedies prescribed upon the supposition of the pulmonary origin of the hæmoptysis, and states it recurred until the irritability of the stomach, indicated by pain and frequent vomiting, was obviated by the use of mercurials; the urgency of the gastric symptoms then began to abate immediately, and the hæmoptysis ceased in twenty days after they were first prescribed.

He quotes the authority of Hoffmann and Mr. Rumsey in support of the opinion that gastric irritation may excite, through sympathy, copious hæmoptysis, independent of any other signs of phthisis, and that it does invariably lead to a deposition of pulmonary tubercles. He disapproves of the use of the acetate of lead in the treatment of symptomatic and copious hæmoptysis, and, in conclusion, expresses his opinion, that whenever the stomach is the seat of inflammatory action, associated with copious hæmoptysis, independent of other disease referable to the thoracic viscera, the safest plan, in reference to treatment, is to consider the hæmorrhage as a salutary act, by which the relative plethora in the lungs is relieved, and the first indication of cure to be the removal of the gastric disease.

DESTRUCTIVE OPHTHALMIA, WITH EXTENSIVE SUPURATION OF THE CELLULAR MEMBRANE, AND SEVERE AFFECTION OF THE KNEE-JOINT, OCCURRING AFTER PREMATURE DELIVERY.

By A. M. McWhinnie, F.R.C.S., Lecturer on Comparative Anatomy, and late Demonstrator of Anatomy at St. Bartholomew's Hospital.

In the early part of last spring the author was requested to visit Mrs. M., a lady, aged forty, of spare habit of body, but strong constitution and active mind. She had suffered several previous miscarriages, and had now been delivered, on the 7th of March, of a four months' child, which had been for some time dead in the uterus, and it was believed that the system was contaminated by the retention of the decomposed

fœtus. Much serious indisposition and constitutional disturbance preceded and followed the expulsion of the fœtus, and which manifested themselves locally, on the second or third day after delivery, by inflammation of the contents of the right orbit: it was found that the globe was much more prominent than that of the other eye, and it was apprehended that an abscess might be forming behind the organ; the cornea, which had lost much of its transparency, was nearly concealed by tumefied conjunctiva, of a crimson colour, which distended the palpebræ, and added materially to their projection. Leeches and belladonna had been applied, and mercury also administered, on account of inflammation of the iris and tunics generally. A few scarifications were made into the vascular conjunctiva, with the view of relieving the chemosis.

At this time the patient became weakened by several attacks of uterine hemorrhage, which was arrested by the ergot of rye and cold lotions. The mercury, which had affected the gums, was consequently discontinued. Quinine was now liberally administered, with a sustaining diet.

On the 28th, the vision was entirely gone; and, considering the eye to be irremediably lost, I advised the whole treatment to be directed to sustain the system, and repress the uterine hemorrhage, which had returned, and was producing great exhaustion. The quinine was, therefore, continued, with a larger quantity of sulphuric acid.

In the meantime, the right lower extremity became stiff and swollen; the calf of the leg became swollen and tense, and a large quantity of matter was evacuated by an incision. Abscesses about the knee-joint, and others in different parts of the limb, were opened immediately on being detected: their contents consisted generally of well-formed pus; the integuments were not materially discoloured.

On the 12th of April, the right knee-joint had become the seat of painful swelling, from effusion into the cavity; and the several structures suffered from the effects of the most destructive inflammation. In fact, it was evident that the whole articulation was extensively disorganized. A very large abscess subsequently made its appearance in the upper part of the thigh, and was opened near to Poupert's ligament.

From this time, Mrs. M. steadily improved in every respect. The knee yielded gradually to passive extension, and, though nearly ankylosed, at the date of the last report the patient is able to support herself on the affected limb. The eye was reduced to a third of its normal size, and had receded to the back of the orbit; the tunics had not ulcerated.

The author concluded by referring to published cases, and comments of the president, Dr. Marshall Hall, and others, bearing upon the subject of his paper.

THE MEDICAL TIMES.

SATURDAY, FEBRUARY 6, 1848.

THE POOR-LAW CONVENTION.

The recent exertions of the committee have been both permitting and arduous.

During the last ten days they have had conferences with three public bodies—the College of Physicians, the Society of Apothecaries, and the Metropolitan Commission. To indicate the interest taken in the public business of the Convention, it is only necessary to say that at these conferences, several of the members of the committee came, at great inconvenience, from considerable distances—the Messrs. Martin from Reigate, Mr. Lord from Hampstead, Mr. Boulger from Betchingley, Mr. Bottomley from Croydon, and Mr. Vallance from West Ham. Scarcely

less praise is deserved by the other gentlemen—residents of the metropolis—for the unhesitating manner in which they have disengaged themselves from the pressure of professional duties, in order that they might support the deputations, and give their attendance at the committees.

The two last committees were most numerously attended, and the discussions of the highest importance. Their results will be speedily made known to the profession.

The next committee meeting will be of great importance. All the delegates who attended the Convention will be specially invited.

Two resolutions were passed on Thursday, which will be received by the profession as no unmerited encomiums to the distinguished individuals whom they honour—resolutions conveying the marked thanks of the committee to Lord Ashley, for his conduct in reference to the last Poor-law Medical Committee of the House of Commons, and to Mr. Guthrie, for the able and incessant exertions he devoted to secure the utmost usefulness and efficiency from that protracted investigation.

Out of between two and three thousand circulars, the committee have been honoured with nearly one thousand returns.

These returns have now been examined, systematically classified, tabulated, and reported on. The labour has been one of very great magnitude and difficulty—amply, however, repaid by the importance of the conclusions they establish, which take a shape the most certain and definite.

The conferences with the College of Physicians, and with the Society of Apothecaries, were most satisfactory. That with the Metropolitan Sanitary Commission was not so promising, but there can be little doubt, looking at the very worthy constitution of the board, that the representations made will not be without a useful and salutary effect.

We shall next week give a report of the interview held with the Commission.

THE COLLEGE OF PHYSICIANS.

The history of the English College of Physicians affords a striking exemplification of the tendency of corporate institutions to debase the powers with which they are invested, when not restrained by adequate provisions. At the period when a charter of incorporation was granted to this college, there is no doubt that the low condition of medical science required some effort on its behalf. Quacks and mountebanks were reaping a rich harvest by operating upon the credulity of an ignorant population, while the education of legitimate practitioners was too defective even to render it possible for them to treat disease scientifically.

At this period, too, the mass of general practitioners was scarcely one step in advance of the motley crew who wandered through village, town, and hamlet, vending those philters and nostrums which were supposed to possess such wonderful powers as not only to play havoc with disease, but also to put to flight in the twinkling of an eye the spirit of evil himself. The apothecary was then twin-brother with the grocer, the surgeon with the barber, and the physician sent to the one or to the other as he required a draught compounded, or an operation performed. Nor, indeed, were the professional acquirements of the M.D. then of the first order; but, being a little in advance of the vulgar crowd, he was looked up to by the more intelligent part

of the community as an oracle of medicine. So renowned an order of men deserved incorporation, and the "defender of the faith" signed the deed which to this day is the source of all their collegiate honour, power, and emolument. It is rather a singular circumstance that the Eighth Harry, who proved himself such a pestilent fellow to priests, should be so zealous a patron of physicians; and we can only account for it on the principle of his hatred to all that was Roman. Probably his knowledge of the classics was sufficiently extensive to inform him that in former ages the inhabitants of the Eternal City had so little esteem for doctors, that the privilege was not granted to them of building their temple dedicated to Esculapius within the city, but there was assigned to them a meaner place out of the town, whither slaves used to resort.

For upwards of two centuries this college has resisted all the changes which have passed over society in general, and medicine in particular, and we know of few instances in which it has appeared a patron of the sciences. Its constitution is clearly opposed to the interests of a liberal profession, and those who are its best friends acknowledge that, in order to render it an institution adapted to the spirit of the nineteenth century, it must undergo a great renovation. The election of the superior officers of the college has something clandestine in it. The president is appointed by seven elects, and these latter gentlemen choose one another: for, upon the death of one of them, the others meet and fill up the vacancy according to their own will and pleasure. Long service in the profession, or merit, can help no man forward to the post of honour; and, if it is to be obtained, it must be through the votes of the life-governors of the corporation. And yet these gentlemen, only eight in number, exercise a power perfectly independent of the college, viz., that of examining and licensing the extra-licentiates.

But we are told frequently that the power, which the college possesses of inflicting punishment on parties who break its laws, is very great, even to the committal of an offender to Newgate. It is true the laws are threatening; but, after all, the corporation resembles very closely the ass in the lion's skin. Its appearance is very terrific, but, when its power of injuring is put to the test, we learn, from the authority of an ex-president, that it is "vox et preterea nihil." The lion's claws are blunted, and its teeth decayed by age, though the inclination for prey is as strong as ever. It is a good thing for the profession that this is the case, for the college was wont in former times to exercise its power without much regard to the principles of equity or justice. Educated physicians have been persecuted with unrelenting zeal, while quacks possessing the college licence have only been admonished, or for a season have had their names removed from the lists. Within the last twelve or fourteen years two instances have occurred which strongly exhibit the way in which this college has exercised its power for the good of medical science. A licentiate became the proprietor of a nostrum which he called "Water from the Pool of Bethesda," and the authorities in Pall-mall, hearing of this, sent a person down a bottle of the fluid from the celebrated well; the directions with it were, that it was to be placed upon a shelf, and after some time it would become turbid. This was an intimation that the water was troubled, and then a draught was to be swallowed immediately. The renowned fluid

was kept as directed, but no change taking place a remonstrance was sent to the doctor, who, with the cunning of a quack, replied, "You bought a guinea bottle, and the quantity is so small that you cannot discover the change which the water undergoes; but if you will buy a five-guinea bottle, you will find that it will become turbid to your utmost satisfaction." This gentleman was suspended for some time, and his name left out of the lists, but ultimately restored. In the case of Dr. Harrison, a more severe proceeding was adopted to put him down. He was a physician of liberal education, and with a diploma obtained after a proper examination; as he did not, however, apply for the college licence, proceedings were instituted against him, which not only cost him large sums of money to oppose, but were the source of much anxiety to him. Thus it appears that it is a far greater crime in the estimation of the college to resist its authority, than for one of its licentiates to gull and rob the public by the vending of a nostrum.

But this venerable institution prides itself as being the patron of sound medical education, and we ask, with astonishment, what proofs it can bring forward to prove that it is so? As we examine its history we discover the most palpable indications that all its efforts have been to advance the interests of a particular order in the profession, with but little regard to the promotion of the science of medicine. For years the fellowship of the college was confined to the graduates of Oxford and Cambridge, and it was only to save the corporation from ruin that more liberal measures were manifested towards its despised licentiates. Even now a spirit of hostility and contempt is manifested towards those who constitute nine-tenths of the profession—the general practitioners. They are spoken of by the college authorities as men of an "inferior grade," and no efforts have been spared to make and keep them such. Hence an apprenticeship clause was dovetailed into the act of 1815, and the efforts of general practitioners to obtain for themselves a charter of incorporation have been strenuously opposed. With all the disadvantages, however, under which they have laboured, they have risen in public estimation, and their education is now in every respect equal to that which is required by the college in Pall-mall for candidates to undergo who seek its diploma. It is evident, therefore, that, in order to make this corporation adapted to the spirit of the age, some change must be effected in its constitution. Every member of the profession would rejoice to see it a college renowned for its learning and liberality; and we sincerely hope that the men of science who are connected with it will labour to make it such.

THE SANITARY CONDITION OF RURAL DISTRICTS.

When so much attention is being directed to the sanitary condition of large towns, there is danger that the rural districts will not receive the regard to which they are entitled. No densely-populated cities, in which poverty, disease, and wretchedness so greatly abound, should be the first to experience the benefits of sanitary improvements, but it should not be forgotten that in villages, also, there are numerous causes in existence which do not fail to produce malignant fevers and numerous diseases.

There are few districts in the country where typhus does not reign more or less throughout

the year, and where the average number of deaths is not nearly as great as in some of our large cities. This is clearly attributable to causes over which we have as much control as over foul drains and ill-ventilated dwellings, and may certainly be checked by the outlay of a sum which would not press heavily upon the inhabitants if collected in connection with the county rates. Hitherto we have had no correct return of the state of the villages and hamlets of this kingdom, and the parties who are most acquainted with the facts are prevented, by circumstances which do not operate in large towns, from making them publicly known. In small rural parishes the persons who could do most to improve the sanitary condition of their neighbourhoods are generally opposed to innovations, which may call upon them to make pecuniary sacrifices; and they would not fail to use their efforts to put down the individual who may have become an advocate for sanitary improvements. Medical men in the provinces are oftentimes dependent upon the squires and farmers, among whom they live, for patronage and support. Now, these renowned worthies are always anxious to keep down not only the poor-rates, but highway-rates also. They are generally, also, the owners of the wretched cottages in which the poor are compelled to live, and to improve those dwellings would cost a sum for which they would receive no additional interest, as the rent is already brought to so high a point that it would be impossible to abstract more money from the little wages which the tenants receive. Many country surgeons are hence prevented from exposing the sad condition of the neighbourhood in which they dwell.

It does not follow, however, that, because facts have not been publicly stated, there are few evils which demand removal. We know of several villages, within fifty miles of the metropolis, where there scarcely exists either a drain in the streets or in connection with any of the cottages. Many of them are entirely destitute of privies, and so accustomed are the poor inhabitants to obey the calls of nature in a very primitive way, that the act is significantly called "going to ground." In these villages there are scarcely any pumps, so that the inhabitants are compelled to drink the turbid water of stagnated pools; and in the summer, when the drought is severe, their supplies are nearly cut off. As a natural consequence, typhus prevails more or less throughout the year, and we have known nearly every member of a large family cut off by this terrible disease.

Mr. Wm. Lee, in an article on "Typhus Fever in Rural Districts," in a recent number of "The Journal of Public Health," adverts to the wretched condition of Pitmoor, a pleasant suburban village, about one mile and a half north of the parish church of Sheffield. He says:—

"The hill upon which it is situated rises between two and three hundred feet in less than a mile. The site has a south-eastern aspect, and the greater portion of the houses are occupied by gentry, professional men, and master manufacturers. One part only of the village—a space not exceeding one hundred yards square—is occupied by cottage-houses. Several rows of these, delightfully situated, with neat gardens in front, and a surface inclination of not less than one in twenty, were infested during the past year, to a frightful extent, with typhus fever. I was informed that some of the cases were of the most virulent kind, and such as to baffle the skill of the numerous medical men in attendance. Con-

vinced that there must be a local cause of the disease, I visited the place, and the following is the brief result as to one of the rows, called Clayton-terrace:—James Wright, tenant: wife ill; two privies and soil-pits, in a foul condition, are erected against the house, and drain through the walls. Charles Ramsden, tenant: child ill. William Howe, little boy ill. William Hill, tenant: two daughters, one of them eighteen years of age, and a son, all died. The next door: Linley, tenant; three children ill. Adjoining house: Wragg, tenant; wife ill; a privy drains its contents into the cellar. Next house but one: Sayles, tenant; wife ill. It is worthy of remark, that the men who spent the greater portion of their time away from the noxious influences of the place, and in a purer atmosphere, escaped.

"The solid refuse of these houses is received by a cesspool, which is close to the houses, and in a most filthy condition. The liquid is actually poured into a trough, with a hole in the bottom, fixed under the spout of a pump, from whence the inhabitants draw their only supply of water. There are pigsties within three yards of the doors and windows of some of these houses, and almost close to the wall. The water had precisely the same taste and odour as that in Lydgate-lane. Was anything done to remedy the evil? Have the medical men come forward voluntarily, and certified this, or other similar places, as nuisances prejudicial to the public health? I am sorry to be compelled to say, that they have not only left this undone, but that some have shrugged their shoulders, and endeavoured, in as few words as possible, to cast a doubt upon facts elicited by one not belonging to the profession."

If the condition of country districts is to be thoroughly made known to the public, the Health of Towns Association must take the matter in their hands, and send individuals expressly for the purpose of investigation. Medical men would then be found ready to communicate the information which at present they are disposed not to make voluntarily.

THE NEW ASSOCIATION FOR THE SUPPRESSION OF QUACKERY.

It is now some months ago since the Apothecaries' Society discovered that all quacks and unlawful practitioners of medicine could be punished without the expensive process of an action at law, and immediately that this fact was ascertained the profession was informed of it. It was natural to expect that a corporate body, armed with power which, rightly executed, would be productive of good, would vigorously employ it for the end desired. The Apothecaries' Company, however, has declared itself incapable of protecting the profession, in consequence of being possessed only of empty coffers. The result is, that ignorant persons continue to exercise their iniquitous vocation by tampering with the lives of the people without fear of coming under the influence of the strong arm of the law.

A number of medical gentlemen in the metropolis, finding that they had little to expect from the society, have resolved to take the matter in their own hands—to subscribe a fund to meet all expenses that may be incurred, and then to use every means to discover and prosecute quackish pretenders to medical knowledge. A meeting has been already convened, at which Dr. Gavin of Hackney presided; resolutions have been passed, and money collected: so that there is now every prospect of efficient machinery being brought into action.

It is greatly to the credit of the medical gentlemen who have put themselves to the trouble and expense of originating such a society, and we

have no doubt that their labours will be appreciated by the whole profession. As the Apothecaries' Society exhibited a strange reluctance to engage in a work which it was their duty to perform, it was absolutely necessary that some means should be devised to prevent the penal clauses of the act of 1815 becoming a dead letter. The isolated efforts of individuals could never accomplish much, and very few would be disposed to incur the odium associated with the office of informer, or could give the time necessary to procure evidence sufficiently plain to ensure the conviction of an offender.

In many parts of the country, as well as in this metropolis, there are persons practising medicine without the shadow of a qualification; and, though this is known by the medical gentlemen upon whose domain they poach, no efforts have been made to put them down, for the reasons we have already stated. The society just formed is, therefore, what the profession needed; and we sincerely hope that all members will come forward to its support. The expense incurred by individuals is trifling, the responsibility nothing, and the society is pledged to regulate its proceedings according to the state of its funds.

The assistance which the Apothecaries' Company will render, through its legal adviser, will considerably promote the objects of the association, while it will be the means of saving much expense, which would otherwise of necessity be incurred. An institution of this kind has been long wanting, and we hope that, now one is started, it will not languish for want of funds.

PHYSICIANS AND QUACK MEDICINES.

This injunction applied for by Sir James Clark, to restrain Mr. Freeman from making use of his name recommendatory of pills (an account of which we subjoin), is a matter of some interest in these days of quack advertisements. It has often been a matter of serious complaint, and for which no legal redress could ever be obtained, that written answers which have been obtained by charlatans from physicians and surgeons, relative to their different medicinal preparations, have been made use of in daily advertisements much in the same way as Free Hospital operations. The decision in this case against the anti-quackery physician ought to be a warning to regular practitioners not to lend their names to medicine-venders and chemists, and above all to withdraw their aid from everything bearing the appearance of a professional sanction of such practices.

"**CLARK v. FREEMAN.**—RIGHTS OF PHYSICIANS.—Mr. Turner (with whom was Mr. Wickens) moved in this case, on behalf of the plaintiff, Sir James Clark, Bart., physician in ordinary to the Queen, to restrain the defendant, Richard Freeman, a chemist, living at No. 5, Clayton-place, Kennington-road, from selling or offering for sale some pills, of which he was the manufacturer, in such manner as to represent them to be the pills of the plaintiff, and from holding himself out to be the agent of the plaintiff for the sale of the pills. It appeared that the defendant manufactured the pills in question for the cure of consumption and other pulmonary complaints, and, to puff them off, he published advertisements and circulated handbills so worded as to lead the public to suppose they were the pills of Sir James Clark, who enjoys a great reputation in pulmonary disorders, having written some treatises on the subject. One of the advertisements was headed—'By her Majesty's permission, Sir J. Clark's Consumptive Pills, a certain cure for consumption, and an infallible remedy for coughs, asthma, difficulty

of breathing, &c.,' and then followed a dissertation on pulmonary disorders and a eulogy of the pills, and at the foot, 'Agent, Mr. R. Freeman, Kennington-road, and to be had of any medicine-vender. 2s. 9d.' There was also a representation of the royal arms after the words 'her Majesty's permission.' Another advertisement was in the form of an apology to the medical profession for selling a patent medicine. The defendant had spelt the name of Clarke with an 'e' at the end; but the intention appeared to be to induce the public to believe that the pills were manufactured and sold under the direction of Sir James Clark. In support of the application, an affidavit of the plaintiff was read, in which he stated that he had caused the pills to be analyzed, and had found that they contained antimony and mercury, which were very injurious in many cases of consumption. He had received several letters from parties in the country, some asking him how they were to use the pills, and others complaining of the ill consequences which had followed from the use of them. It was contended, that as it was not only a gross imposition on the public to represent the pills as the plaintiff's, but as it would also tend to injure the reputation and practice of the plaintiff, the court ought to interfere by injunction. The defendant had no right to use the plaintiff's name to enhance the value of his own wares, or to hold himself out as the agent of the plaintiff in the sale of a quack medicine. The conduct of the defendant gave the plaintiff a right of action against him, and where damages were recoverable in an action at law the court would grant an injunction. In the case of 'Lord Byron v. Johnston' (2 Meriv., 29), Lord Eldon granted an injunction to restrain the defendant from selling some poems as Lord Byron's which were sworn not to be his; and so here the court ought to restrain the defendant from selling pills as the plaintiff's which were not his.—The Master of the Rolls thought he had not jurisdiction to interfere. There could not, he said, be any injury to property so as to induce the court to interfere. An attempt to impute to Sir James Clark that he had anything to do with a quack medicine was, perhaps, defamatory to his character, but he could not imagine that a person in his position could be seriously injured by it. It was one of the taxes imposed on eminent men to have their names thus made use of. No doubt also an attempt to connect Sir James Clark with a quack medicine was a great injury to the public, who were induced to adopt remedies which were highly prejudicial. But this was in the nature of a public offence; and Lord Byron's case differed from the present in this respect, that Lord Byron was in the habit of writing and publishing poems, but Sir James Clark was not in the habit of making and selling pills. He could not, therefore, be said to be injured in his trade or business by what was done by the defendant. He must refuse the application."

MR. GUTHRIE'S LECTURES ON WOUNDS OF THE CHEST.

MR. GUTHRIE, under the great calamity which has befallen him, in the loss of his son, the Rev. Lowry Guthrie, does not deliver these lectures himself. They are read by Mr. Warwick, the lecturer upon anatomy and physiology to the hospital, with such comments as he thinks necessary, and which, from his long connection with Mr. Guthrie, he is well able to make.

We have the hope that Mr. Guthrie will be able to resume their delivery before the course be completed.

We need scarcely add that we feel both pride and pleasure in being the medium of placing before the professional public the matured science, on so interesting a subject, of one who has seen, and under the most favourable circumstances, more surgical practice than any other member of our profession in Europe.

ASIATIC CHOLERA.

We have been favoured by the Director-General of the Army Medical Department with the most important contribution that has of late years been made, to our knowledge, of this mysterious scourge. The manuscript consists of a very elaborate report, furnished to the Army Medical Board by one of its most distinguished officers, Surgeon Thom, of her Majesty's 86th Regiment. It is entitled "A Medical Report on the Cause, Character, and Treatment of Spasmodic Cholera, as it occurred in the 86th Regiment at Kurischee, in June, 1846." We shall publish the first part of the monograph in our next number.

CONGLETON UNION.

At a special meeting of the guardians of the Congleton Union, held at the board-room at Arolid, on Friday, the 21st ult, it was resolved that the allowances to the surgeons of the union be increased as follows:—

To the surgeon of the Congleton district, from	£60 to £90 0
To the surgeon of the Sanbach district, from	75 to 112 10
To the surgeon of the Holmes Chapel district, from	35 to 52 10
To the surgeon of the union poorhouse, from	30 to 50 0

The resolutions were carried unanimously at a very large meeting of guardians.

CONFERENCE OF POOR-LAW MEDICAL OFFICERS WITH THE COLLEGE OF PHYSICIANS.

The college authorities having fixed Tuesday, Jan. 26, for receiving a deputation from the committee appointed by the Convention of Poor-law Medical Officers, the following gentlemen, Dr. Hodgkin, Mr. Vallance, Mr. Peter Martin, Dr. Barnett, Mr. Lord, and Mr. Healey (the honorary secretary), attended at the College of Physicians at three o'clock, and were received by Dr. Paris (the president), Dr. Clendinning, Todd, Sutherland, and Hawkins (the registrar).

Dr. Hodgkin, in introducing the deputation; remarked generally on the objects sought by the Convention, and the manner, temperate but firm, in which the committee desired to carry out those objects. He dwelt on the claims which the profession had, when aggrieved, to the assistance of its seniors, and especially of a corporation exercising privately by its members, as well as publicly by its legal position, so much influence as the College of Physicians. The deputation, in seeking that conference, had it in view to secure the advantage of the college's assistance; and he expressed his hope and confidence, as one of its licentiates, that that assistance would be cheerfully accorded.

The President here remarked that the college did feel a warm interest in the subject which the committee was submitting to it, and that, in the parliamentary committee under Lord Ashley, he had himself given evidence in favour of a great improvement.

The Deputation then submitted in detail to the president and censors the different grievances under which poor-law medical officers suffered throughout the country, particularly adverting to the inequality of payment, its inadequacy, the short tenure of many poor-law medical appointments, the system adopted in giving orders, and the mischief which from all these causes constantly arose to the pauper sick. They referred to instances in illustration, and, advertent to the influence the position of the college necessarily gave it with the Government, urged on it, that by representations to the Government on the one hand, and by joining, on the other (through their president), a deputation to Sir George Gray and Mr. Buller, to be sent from the committee, that they would exercise all their power to mitigate an evil alike

mischievous and dishonouring to the whole profession.

The President and Censors promised to give their best consideration to the statements of the deputation, expressed the warm interest they felt in removing the grievances they complained of, and added an assurance that the college would be glad on every occasion to communicate with the committee, and to second as far as possible their exertions.

The Deputation having expressed their acknowledgments to the marked courtesy and cordiality with which they had been received, and their representations heard, then retired.

SOCIETY OF APOTHECARIES.

A full deputation—consisting of Mr. Martin, Delegate; Mr. Bottomley, Croydon; Mr. Valhane, Dr. Barnett, Mr. Liddle, Mr. Lord, Mr. Lobb; Mr. Boulger, Bletchingley; Mr. Mitchell, and the Honorary Secretary—had the honour of waiting on the Society of Apothecaries on Friday, the 28th ult.

In answer to representations, similar to those made to the College of Physicians, the society, through the master, Mr. Bean, and several of the wardens, emphatically declared their warm interest in the exertions of the committee; and stated that the grievances of poor-law medical officers particularly appealed to the society's best exertions for their removal, and that they would be most happy to exercise their utmost influence in seconding the exertions of the committee, the more so as those exertions tended to the well-being and protection of thousands of gentlemen possessing the licence of the society, as well as of the large body of the sick poor.

The deputation then retired, warmly impressed by the cordial and decided manner in which the society pledged its concurrence and support.

THE COLLEGE OF PHYSICIANS AND THEIR IMPURITIES.

[To the Editor of the Medical Times.]

SIR,—At a moment like the present, when the supporters of the College of Physicians are so actively, though, I fear, so impotently, employed in bringing before the public evidence of their superior acquirements, dignities, and, we may add, virtues, it is most unfortunate that there should be amongst them individual members who have lately made, and are still making, an open display, to use the mildest term, of their discreditable conduct. The correspondence of Drs. Williams and Watson, the singular attempt to impose upon the Royal Society by Dr. Robert Lee, and the astounding fact that several members of that immaculate body are at this very time practising homoeopathy, hydrophobia, *et hoc genus omne*, ought surely to call forth the interference of the ruling powers; and we do think that their president, Dr. Paris, is bound, if he has the least respect or good will towards the college, to bring forward before that body, for their mature deliberation and censure, the conduct of those individuals who have so grossly trespassed on the usages of society. If what has been publicly said of Dr. Robert Lee's conduct, and if the report of the Physiological Committee of the Royal Society, published in the *Medical Times*, be correct—of which, I suppose, there is no one who entertains a doubt—I do protest that the college to which he belongs, as well as the Royal Society, should diligently scrutinize the whole matter, and act with all due circumspection, but with that decision which so monstrous a case seems unquestionably to demand.

Fall-shall East, Feb. 2.

CANSON.

DR. ROBERT LEE AND HIS NERVES OF THE HEART.

[To the Editor of the Medical Times.]

SIR,—Last year readers should be further misled by the reiteration of erroneous statements relating to the publication of the report on Dr. Robert Lee's paper, "On the Nerves of the Heart," which appeared in your journal, and in the *Medical Gazette* of the 14th ult., I beg the favour of your inserting the following correction of those statements.

The report in question, the authenticity of which Dr. Lee affects to doubt, is not, as he has all along assumed, the report of the Committee of Physiology. It was drawn up by two of its members, to whom, as being highly qualified for the task by their anatomical knowledge, the committee referred the paper for examination, and for a report on its merits; and, upon the report being read to them, the committee decided that they did not recommend the paper to be printed. No one, certainly, had a right to make that document public without the consent of its authors; but, most assuredly, those authors had themselves the fullest right to sanction its publication in whatever manner they might deem best for the interests of science and the establishment of truth. In the present instance they have very properly exercised that right, and are entitled to the thanks of every impartial inquirer for communicating a document which, exposing as it does the "extravagant misrepresentation" (to use their own words) contained in Dr. Lee's paper, furnishes so complete a justification of the unfavourable verdict pronounced upon it by the committee. The referees had no need to ask permission of the committee to give to the world the results of their own investigation. They alone, not the committee, are responsible for its contents; and for the accuracy of the published copy, with the exception of a few unimportant typographical errors, they are ready to vouch. Authorized by them, I was the channel through which that copy was communicated to the journals; but the original manuscript has never been out of my hands from the time it was placed in my custody. Dr. Lee maintains that the reports of referees should ever be regarded as secret and confidential, and, as far as I have been concerned, they have always been so kept. By whom, then, has this important secret of the referees been divulged?—I answer, by the referees themselves. By whom has their confidence been betrayed?—By themselves alone. By whom is this publicity complained of?—By those only who, while they are loud in their reprobation of secrecy, are yet glad of the shelter it affords them, and are averse to let in the light of truth.

In his letter to you, Dr. Lee seems to approve of the abuse which the *Lancet* has culminated against the council for having "actually blackballed" the last paper sent by Dr. Marshall Hall to the Royal Society; and asks why I do not publish the report on the strength of which the committee was led to refuse it a place in "The Philosophical Transactions"? I can only say, in answer, that I am quite ready to do so whenever I receive the sanction of the authors of that report—a report, I may add, which was the result of a most careful and laborious investigation by no less than four competent referees, and which gives a most full and elaborate explanation of the grounds on which they considered the publication of the paper in the "Transactions" as not advisable.

I am, Sir, your obedient,

P. M. RUGG.

16, Upper Bedford-place, Feb. 1.

DR. R. LEE AND THE ROYAL SOCIETY.

[To the Editor of the Medical Times.]

SIR,—As my name has been brought before the medical profession, charged with either carelessness or wilful neglect, I feel it due to my character, as an artist of long standing and experience, and also to the Royal College of Surgeons, and those medical gentlemen by whom I have been employed, to state that I do not, and never did, consider myself responsible for the accuracy of any anatomical drawing made by me under the eye and directions of the anatomist; and I have never yet made one, whether at home or elsewhere, that has not been almost daily examined and corrected by the anatomist himself.

As to the various structures pointed out for delineation, it would ill become me to pretend to more knowledge than my employers, and presume to dispute or doubt their existence. I am an artist, not an anatomist.

By inserting the above, you will oblige, Sir, your obedient servant,
Feb. 2. EDGAR WEST.

FATAL CASE FROM CHLOROFORM.

By T. N. MEGGISON, M.D.

I much regret that the melancholy duty of communicating what I believe to be the first fatal case of the administration of chloroform should devolve upon me; but I consider I should not be doing my duty to the profession generally

did I not make public the case. The patient, a fine-grown girl of fifteen, had been suffering for some time past from onychia of the left great toe, the matrix appearing involved extensively. After consulting with Mr. Lloyd, my assistant, we deemed it absolutely necessary that the nail and matrix should be completely removed. I ought to say that, about a year previously, the nail of the other great toe had been removed at the Newcastle Infirmary; but, the matrix having been left, the disease had spread, and induced necrosis of the distal phalanges of the toe, rendering amputation necessary, the propriety of which we merely urged, thinking to do it after the operation had been performed on the other foot.

During the previous operation she was under the influence of ether, and said she felt no pain nor inconvenience from it except a severe headache afterwards, and great uneasiness during the inhalation, from irritation of the fauces. We assured her she would feel none of that irritation from the use of chloroform, and that in the cases in which I had used it the headache, if any, had been transient. The whole of the day previous to the operation she had been fretting much, and apparently dreading it, crying continually, and wishing she were dead rather than submit to it. In this state we found her on Friday last, at noon, when we went to perform the operation. We endeavoured to console her, and calm her fears, assuring her she would not feel it, and urging her to be more collected, but in vain. She sat down in the chair sobbing. I poured a teaspoonful of chloroform on a handkerchief, and, on applying it, she drew her breath twice, and pulled my hand down. I asked her to put her hands on her knees, which she did, and breathed quietly for about half a minute, when, no stertorous breathing or change of appearance supervening, I lifted her hand, and, finding it rigid, requested Mr. Lloyd to remove the nail and matrix. This was dexterously done with one sweep, at the termination of which she kicked out, and I, thinking the chloroform not sufficiently potent, was proceeding to apply more to the handkerchief, when her lips, which had been previously of a good colour, became suddenly blanched, and she spluttered slightly at the mouth as one in epilepsy. I threw down the handkerchief, and gave her cold water immediately, followed by brandy. This, however, had not the least effect, not the slightest attempt at rallying being made, and in a minute more she ceased to breathe. A vein in the arm was opened, as also the jugular, but no blood would flow. The whole process of inhalation, operation, bleeding, and death, could not, I should say, have occupied two minutes.

I will send you the result of the coroner's inquiry when finished.

Whickham, Jan. 30.

THE DEATH AFTER CHLOROFORM.

In reference to the case given elsewhere by Mr. Meggison, an inquest was held on Tuesday, the principal facts charged being the following:—

Sir John Fife: I am a surgeon in Newcastle-upon-Tyne. I made a *post-mortem* examination of the body of Hannah Greener, the deceased, along with Dr. Glover, about three o'clock in the afternoon of Saturday last. The body was that of a well-grown girl, of the age indicated. The legs were rather thin; calves not sufficiently fleshy; breasts tolerably well developed, and, on the whole, thin. She was not devoid of fat, as appeared on proceeding to open the body. The body was perfectly free from spots or stains of any kind, except from the marks of phlebotomy, to which she had been subjected, and some slight livid stains about the neck. The toes showed the nature of the operations which had been performed. There was simply the ordinary degree of rigidity. The mouth was a little open. The eyes presented no appearance of congestion. On opening the chest the lungs were not collapsed.

One or two slight adhesions were encountered on separating them from the walls of the chest. The external appearance of both lungs, over the whole surface, but especially in the inferior portions, was that of organs in a very high state of congestion. They were mottled with patches of a deep purple, bluish, or scarlet hue. They were everywhere crepitant. Along the outer and anterior border of both lungs, particularly of the upper lobe of the left lung, were several emphysematous bubbles of small size. On cutting into the pulmonary tissue, it was found free from tubercles, unless some hard bodies about the roots of the bronchia, enlarged and partially indurated glands, could be so called. The pulmonary tissue was filled with bloody froth, which was also found in the interior of the bronchia mixed with mucus. There was no appearance of hepatization. On examining the larynx and trachea, the epiglottis was found reddened at the summit, of a vermilion hue. The mucous membrane of the larynx was redder than natural, mottled with vascular patches. The sinuses of the larynx contained a good deal of dark mucus. The oesophagus was healthy. The stomach was distended with food. Digestion had been going on at the time of death. The liver, kidneys, and spleen were more congested than usual. The heart contained dark fluid blood in both its cavities; very little in the left; its structure, and that of the great vessels near it, was healthy. The brain, externally and internally, was more congested than usual, and the ventricles contained rather more than the usual quantity of serum. In my opinion the cause of death was the congestion of the lungs, and that congestion I ascribe to the inhalation of chloroform. Of the power of chloroform to occasion such congestion no doubt can be entertained after the experiments of Mr. Wakley and Dr. Glover on animals. There does not seem to have been anything in the previous condition of the young woman to have prevented the surgeon from having recourse to chloroform as a means of allaying pain, in one of the most painful operations of surgery. Such is my opinion of the effect of chloroform in lessening human suffering, and the small degree of danger attending its application in the cases that I have seen, that if I were myself required to undergo an operation I would have no hesitation whatever in taking it. I have been using chloroform three or four times a week, and since its efficacy in relieving pain was published, and I have never seen bad effects from it. In one instance, that of a woman who had to submit to the removal of a tumour, weighing about three pounds, and distributed over a surface about a foot square, Dr. Glover and I administered about eight times the quantity of chloroform that was used in the case of the deceased. She recovered quickly, and was not worse after the operation than might have been expected from it, formidable character. I have used it frequently in amputation, lithotomy, and a great many severe surgical operations, and never knew any bad consequence arise from it. I attribute the fatal effect of the chloroform in the present instance to peculiarity in the constitution of the young woman. I am doubtful whether it arose from the state of the lungs, or the peculiar susceptibility of the nervous system. No effect could arise in the present instance from the ether she took on the 26th of October in the infirmary. I have no hesitation in affirming that the fatal issue of this case might have occurred in the hands of the most prudent and skilful surgeon that ever lived. It sometimes happens that a person will die from the shock of the operation, within a very few minutes after, and with nothing to show the cause—merely from the shock it gives the system. Those cases are rare. I think in such cases the same individuals would be influenced in a similar way with chloroform. The same susceptibility of nerve that would render the shock fatal would render the chloroform fatal. No human foresight, no human knowledge, no degree of science could have forewarned any man against the use of chloroform in this case. I have refused to apply

it in some cases where the operation could be done in a moment, and was not attended with severe pain; but in every painful case I use it, and, unless it produced insensibility, I would go on repeating it to double the quantity used in this case, and more, if it were necessary. A case occurred lately in the infirmary where a great deal of blood flowed during the operation, which was a very tedious one; and chloroform was repeated during the operation without any bad result afterwards.

By a Juror: The immediate cause of death in the case of the deceased was congestion of the lungs. Congestion is the state of a body gorged with blood, like a bloodshot eye; it is sometimes gorged to such an extent as to burst the smaller vessels and escape in dots or drops. I may state that chloroform was used lately in the case of a child ten months old, when an operation, attended with no loss of blood, was performed, and no bad result followed.

Robert Mortimer Glover: I am a surgeon, but practise as a physician, and was formerly lecturer at the Medical School in Newcastle-upon-Tyne. I have heard the evidence of Sir John Fife, and fully agree with it. Having heard the evidence of Mr. Meggison, and the persons who were present when the operation was performed under which the deceased died, I am of opinion that the after-treatment to restore life was proper, under the circumstances, and in accordance with the views of the highest medical writers. I think chloroform is safer in larger operations, where there is great loss of blood, than in smaller operations. I have examined the chloroform, and find it pure. I consider chloroform more dangerous than ether; and that has been my opinion from the first.

The coroner then addressed the jury, briefly explaining the law of the case.

The jury then retired, and, after a few minutes' absence, returned with the following verdict:—"We are unanimously of opinion that the deceased, Hannah Greener, died from congestion of the lungs, from the effect of chloroform; and that no blame can be attached to Mr. Meggison, surgeon, or to his assistant, Mr. Lloyd."

PROBABLE ANTIQUITY OF CHLOROFORM.

At the Medical-Botanical Society, on Thursday se'nnight, Mr. Huttman stated his reasons for believing that the extraordinary properties of chloroform, viz., the production of insensibility, and the creation of dreams, were known in very remote times, but used most probably for magical purposes only. He first drew attention to the words *formica* and *murmex*, the Latin and Greek names of the ant, the insect which yields the formic acid. These words, together with *morphe*, the Greek word for form, he stated to have a common origin, and to have reference to the property of creating dreams, or immaterial forms. They also gave the name of *Morpheus* to the God of Dreams, and furnished the root of numerous words having reference to those things which produce sleep and dreams, as well as to the various phenomena connected therewith, and even to death itself, viz., *Mors*, which the ancients personified as the Brother of Sleep. Admitting these points, the speaker said they contained ample proof that in giving the names *formica* and *murmex* to the ant, the ancients selected that distinguishing property which the insect possessed of inducing dreams or forms (*morphe*). Mr. Huttman thought there was ample proof to warrant the conclusion that it was applied externally in the form of an ointment. He read several extracts from "Baptista Porta's Natural Magic," "Lorenzi's History of the Inquisition," "Reginald Scott's Discovery of Witchcraft," and "Sir Walter Scott's Letters on Demonology," to show an identity between it and the far-famed witches' ointment which had the reputation of possessing, in an eminent degree, the two leading properties of chloroform above referred to: To be present at their "Sab-

bath" the witches were compelled to anoint the palms of their hands and the soles of their feet. Their midnight rambles, armed with spades, and under the influence of their favourite Diana, i. e., moonlight, may have had reference to the time and means best suited for securing the ants. The sensation of flying, which is admitted by nearly all who dream under the influence of chloroform, has its parallel in the aerial travels of the witches, and the "pricking of the thumbs" may be a waking sensation incident to the external application of the ointment.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Continued from page 302.)

OPPOSITION TO THE BILL.—I am not aware that any person approaching my station in the profession has any interest in the matter. The opposition of myself and of others approaching our position in the profession, as far as I know the opinions of the council of the College of Surgeons profess petitioning against the bill, rests upon public grounds exclusively, and with reference to the injury to the profession generally, which the passing of such a bill as that now on the table of the House would produce. I cannot say that I have conversed with all the leading men upon the subject, but I have conversed with many who hold the same opinion. I do not know whether Mr. Guthrie objects to the bill or not, nor do I know that he is in favour of the bill. All those, in point of fact, with whom I have conversed, including the whole body of the council of the College of Surgeons, irrespective of any personal interest whatever in the matter, are opposed to the bill. I am not aware that the petition of the president and vice-presidents of the Royal College of Surgeons expresses a favourable opinion as to any parts of the bill; there are some parts of it of which I have a favourable opinion, for instance, the getting rid of the apothecaries' apprenticeship; and I think registration a good thing. I have stated that I have attended at the bedside of patients in the hospital of which I was the senior surgeon, with my pupils, and that much information has been conveyed in conversation from me to them, and in reply to questions from them to me; and I was asked on my former examination whether, if the law which now gives to the governors of Guy's Hospital an absolute discretion of admitting or rejecting parties to attend the bedside of patients were altered, and the governors were compelled to admit persons who were strangers, such a course would, in my opinion, be beneficial. I do not think that the compulsory attendance of young men listening to me and asking questions of me at the bedside of a poor patient labouring under any critical disease would be tolerated in the state of feeling in England, whether that patient were in a hospital or in a private cottage. I do not think that this sort of examination is worth anything except where there is a feeling of good will and kindness between the teacher and the pupils, and they converse familiarly with each other. I would reject with great repugnance the possibility of a law which should justify the intrusion of a young pupil at the bedside of a patient, there to hear an examination into the state of the patient's disease, if it were compulsory. I do not know who wrote the petition against the bill. I do not think I was present when the petition was read. I was not consulted about it. It was left to the president and vice-presidents, Mr. Lawrence, Mr. Travers, and Mr. Stanley. The petition which has been presented to the House of Commons, and has been by the House of Commons referred to this committee, is not described as the petition of the whole body of the College of Surgeons, but it is, in fact, the petition of the president and vice-presidents. As to the substance of the petition the Council was consulted, but it was, in fact, the petition of the president and vice-presidents, adopted by the

council at a meeting at which I was not present. But if I had not been consulted it would not have been irregular, inasmuch as it did not purport to express my opinion. But subsequently to its presentation it had met with my approbation and the approbation of the council.
(To be continued.)

GOSSIP OF THE WEEK.

NAVAL APPOINTMENTS.—To the Devastation, George Clarke, assistant-surgeon, confirmed; to the Medea, William Crawford, assistant-surgeon, confirmed; to the Ringdove, John E. Hamilton, assistant-surgeon, confirmed; to the San Josef, Robert Irvine, acting assistant-surgeon; to the Star, Evan Evans, surgeon; to the Victory, John Murphy, acting assistant-surgeon.—Surgeon: Andrew Miller, M.D., of the Trafalgar, to the Hibernia, vice Macdonald.—Assistant-Surgeons: Thomas S. Wells, doing duty with the Locust, to the Hibernia; Charles F. Williams, to the Locust.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, Jan. 27, 1848:—Henry Christmas Walton, Liverpool; John James, St. Just, Penrith, Cornwall; Thomas Wise, Malton, Yorkshire; George Reynolds Schofield, Leeds; James Rice; George Fry, Mayfield, Sussex.

ROYAL COLLEGE OF PHYSICIANS.—Gentlemen admitted members on the 28th ultimo:—J. Jordan, N. Marsh, H. Armstrong, R. Gorst, P. Y. Gowland, J. T. Jackson, H. Dermott, T. J. Sayer, and A. Goodchild.

UNIVERSITY OF GLASGOW.—Dr. Jeffray, professor of anatomy in this university, died on Friday last. He has held the chair since 1790, and was the only professor or officer connected with the college whose appointment was made last century. The patronage is in the Crown, and it is said that the appointment will be conferred on Dr. Allan Thomson, professor of the institutes of medicine in the university of Edinburgh, and son of the late Professor John Thomson.

CITY OF LONDON LYING-IN HOSPITAL.—The annual meeting of the governors of this institution was held on Wednesday last, Mr. H. Jackson, vice-president, in the chair. The report, which spoke favourably of the healthy condition of the inmates, showed that an increase of admissions during the past year of nearly twenty per cent. as compared with the previous year had taken place, and that the applications for admissions were increasing—twenty-eight women had been admitted in one day. The mortality had been less than 1½ per cent. The report also stated that a legacy of £100 had been left by Mr. J. Finnie, that a donation of twenty guineas had been received from Mr. H. Jackson, £5 from Miss Salt, and £5 from Miss E. Salt. Mr. A. W. Roberts was elected treasurer, in the room of Mr. J. Capel, deceased; after which three new trustees, the committee, and officers were elected, and the business of the court was closed.

FRENCH MEDICAL REFORM.—The commission charged with the examination of the draught of the bill "On the Practice of Medicine and Pharmacy," is composed as follows:—M. Richard des Bays, M. Pouillet, M. Mottet, M. le Vicomte de Falloux, M. de Peyramont, M. Champanhet, M. Lepitoudois, M. Malgaigne, M. Quenault.

M. Grotz, a member of the Municipal Council of Strasbourg, has left by will, to the hospitals of this place, a portion of his immense fortune. The legacy is supposed to amount to 150,000 francs.

MEASURES AGAINST THE CHOLERA.—The French Minister of Commerce has appointed a special commission, composed of physicians, to give their advice upon questions relating to the public health and to devise means against the invasion of the cholera. M. Orfila is the president.

The Faculty of Philosophy of the University

of Berlin has voted unanimously in favour of the admission of Jews to the chairs of the university. The Faculty of Medicine has proposed Dr. Remak, a Hebrew, as a professor.

The number of medical students in the schools of the United States is as follows:—University of Pennsylvania, 411; University of Transylvania, 205; Louisville, 354; Medical College at Memphis, 55; Medical College of Ohio, 170; Medical College of Willoughby, 101; Medical College of Castleton, 131.

The Emperor of Russia has transmitted the grand gold medal, instituted by himself for learned foreigners, to Dr. Syne-Pirondi, of Mar-seilles, in testimony of his approbation of the doctor's work on the plague.

PRESENT TO PROFESSOR AGASSIZ.—The students of the New York College of Physicians, before whom the professor has been delivering a course of scientific lectures, have presented him with a silver box, which contained 260 dollars in half eagles, to which was added a free-passage ticket to Charleston, where the professor was engaged to deliver a new series of lectures.

DEATH FROM THE BITE OF A RATTLESNAKE.—Dr. A. F. Wainwright, of 41, Crosby-street, New York, has recently died from the bite of a rattlesnake. The snake was sent him by a friend in Mobile, Alabama. It was a large animal, about five feet in length, having twelve rattles; it was contained in a box with spars over the top. The doctor was on his way home from the ship with the present, but stopped at the Broadway-house to show the curiosity. The company present seemed to enjoy the sight of teasing and irritating the snake, while the reptile kept whizzing its rattle at a furious rate. The box was opened; and now there being a fair field the reptile kept coiling and rearing itself in fierce defiance of its enemies: this display lasted for some time, when Dr. Wainwright touched it a few inches below the head, expecting that it could not bend its body sufficiently to bite. In a moment it snapped, and inflicted a wound on the first joint of the middle finger of the right hand. This occurred at half-past six o'clock p.m., on Thursday. Dr. Smith was hereupon immediately called upon, and visited the patient. He made a superficial excision of the part and also cauterized it with nitrate of silver. He also applied a ligature immediately above the wrist. The hand commenced to swell immediately after the occurrence of the accident. The deceased was then removed to his residence by a few friends, and Drs. Whittaker, Caldwell, Peet, Parker, and Campbell were called in, and application of turpentine to the wound was ordered on their arrival, as also the internal administration of diffusible stimulants. Although the disease progressed rapidly in its course to the forearm and arm, no constitutional symptoms seem to have made their appearance until it reached what the faculty technically term the "axilla," or armpit, when immediately the pulse began to flag; and notwithstanding the continued application of stimulants by the mouth, and also in other forms, the pulse never rallied until about twelve o'clock p.m., when death put a period to his existence. Nothing could equal the assiduity and attention paid to the patient by the abovenamed medical men, who remained with him throughout, from the moment they were called in. They all, however, frankly acknowledged that they had never seen a similar case before. Two medical students from Georgia were also present, having seen similar cases, and gave valuable aid. Dr. Wainwright was a physician of eminent standing, of high professional reputation in medical, literary, and scientific acquirements, having been well known and universally respected among his professional brethren and friends. He had been ten years a resident of New York, and studied under Dr. Whittaker. He was forty years of age. He was formerly a captain in the 50th Regiment of Foot in the British service. The body has been embalmed.

INJECTIONS, ASTRANGENT: solution of one to four grains of more of the sulphate of iron, zinc, or

copper, of the crystallized acetate of lead, of alum, potash, or nitrate of silver, &c., to the ounce of simple distilled rose, plantain, or melilot water, or else from one to two drachms of the extract of rhatany, catechu, myrrh, aloes, gum-kino, &c., to the same quantity of liquid, to which is sometimes added four, five, or ten drops of Sydenham's laudanum. Used in acute and chronic leucorrhæa gonorrhæas. Eau de Cologne, diluted with water, a mixture of wine and honey, oxycrate, sea-water, iced water, the decoction of the angustura, may also be used as injections into the canal of the urethra, in cases of gonorrhæa, when the inflammatory symptoms have been previously combated by local or general bleeding. * * * These injections should be made weak at first: their strength may be gradually increased. They should be practised four or five times a day, and continued for at least a week; when the discharge has ceased they should be left off gradually. They are practised by means of a small syringe, the canula of which should completely close the orifice of the urethra, and for that purpose some thread or cotton should be wound round it. The injection ought not to pass much beyond the glans, and, to prevent its doing so, the under surface of the penis should be compressed with the fingers of the unemployed hand when the injection is used. When it is requisite that it should pass further in, a pledget of lint is to be applied in the perineum in man, and under the arch of the pubes in women, to prevent its passing into the bladder. When sufficient liquid has been thrown in not to distend the canal painfully, the syringe is withdrawn, and the orifice of the urethra closed by the fingers, so as to keep the injection in contact with the sides of the canal for four or five minutes, after which it may be permitted to escape. The strength of the injections is to be increased or diminished according to the degree of pain caused by them. As injections do not always pass to the requisite distance in women, for want of proper attention, or of the requisite instrument, it is advisable to follow Ricord's plan, to use the dissector, astringent, or other lotions, by soaking pledgets of lint or pieces of sponge in them and passing them into the part. Bathing, moderated diet, and continence are necessary while the injections are used.

DEATH OF DR. JOSEPH BELL.—It is with some regret that we have to announce the death of one of the most distinguished medical practitioners in Edinburgh, Dr. Joseph Bell. The melancholy event took place in his home in George-street, on the evening of Saturday last, about nine o'clock. The cause was, we believe, typhus fever, caught in the discharge of his professional duties. He was the youngest son of the late Dr. Benjamin Bell, the Lion of his day, one of the most celebrated operators and practical surgeons that Scotland can boast of. His mother was a daughter of Professor Hamilton, who filled with distinction the Chair of Divinity in the University of Edinburgh; so that, by parentage, as well as by professional celebrity and personal labours, the name of Dr. Bell has long been intimately connected with the medical renown of the Scottish metropolis.

OBITUARY.—Died on the 6th ult., at Kendal, in Westmorland, where he had practised fifty-six years, Mr. Edmund Tatham, surgeon, in the 80th year of his age.—Jan. 17, at Baldock, Herts, after a short illness, Robert Innerarity, Esq., surgeon. He had operated on a patient on the 9th ult., and some of the matter affected a small scratch in the finger, which caused the disease gradually to spread over his whole body; he expired after a few days' suffering, universally respected, and leaving a widow and five children to mourn the loss of an affectionate husband and kind and indulgent parent. A feeling of deep sympathy is felt by the whole town and neighbourhood on the melancholy event.—Jan. 20th, at Raeburn-place, Edinburgh, Dr. J. W. Reid, surgeon, R.N.—On the 31st ult., at Sevenoaks, Kent, after a long illness, James Gellatly, Esq., M.D., in the 52nd year of his age, for more than twenty years a highly respected practitioner in the borough of Southwark.

NOTICE

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the OFFICE.

TO SUBSCRIBERS.

The subscription for the stamped edition of the *Medical Times* is 16s. for the half-year, and £1. 6s. for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfax.

NOTICE.

THE Editor having arranged to PRESENT A HANDSOME COLOURED CHART OF CHEMICAL ANALYSIS to each annual Subscriber entered on the roll of the Office, it is respectfully notified that all gentlemen forwarding their annual subscription within this month will be entitled to a copy. The Chart is a beautiful Lithographic Engraving, 41 inches wide by 28 deep, and contains a compendious Synopsis of the Science of Chemical Analysis, giving substances, tests, and results (with colours), adding, by very skillful arrangements, a complete *resumé* of the tests by the blowpipe, with their results, a scientific description of the agents employed, and an able development of such doctrines and facts of Chemical Analyses as are not dependent for their elucidation on colour alone.

This Chart will be ready for distribution on the 15th or 22nd of February, and will be forwarded free of expense, to each annual subscriber.

It must be added that, this being a gift, no applications can be entertained from gentlemen not on the roll of the Office.

MORTALITY TABLE.

For the Week ending Saturday, Jan. 29, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1457	1107
SPECIFIED CAUSES...	1453	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	340	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	43	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	143	138
Diseases of the Lungs, and of the other Organs of Respiration.....	353	225
Diseases of the Heart and Blood-vessels.....	46	39
Diseases of the Stomach, Liver, and other organs of Digestion.....	63	62
Diseases of the Kidneys, &c. Childbirth, Diseases of the Uterus, &c.....	19	9
Rheumatism, Diseases of the Bones, Joints, &c. ...	14	13
Diseases of the Skin, Cellular Tissue, &c.	9	8
Old Age.....	2	1
Violence, Privation, Cold, and Intemperance.....	72	79
	51	31

TO CORRESPONDENTS.

"*Agriicola*."—The term is applied in botany to a leaf which has portions of its upper surface raised in the form of blisters, with corresponding concavities on its inferior surface: the word is also employed as the specific name of certain plants, the leaves of which have the peculiarity above mentioned.

"*Students*."—The hospital contains about five hundred beds, and we believe the surgical staff is efficient. The

regulations of the Apothecaries' Company, in reference to the registration of certificates on lectures and hospital practice, may be obtained on application to the secretary.

"*Mr. Balme*."—We are obliged for the paper on "*Meteorology*," but at present we cannot spare room for its insertion.

"*Medicus*."—Prussic acid, prepared as Scheele directs, is not of uniform strength. Prepared according to Vauquelin's method, it retains a portion of sulphuretted hydrogen. The preparation of the Pharmacopoeia contains about two per cent. of real acid.

"*Anti-quack*."—The tergiversations of the journal alluded to are well known. We shall be glad to receive the promised information.

"*A Constant Subscriber, Abergavenny*."—The circumstance alluded to is probably referable to the ineffectual application of the poison in the cases that escape. This conjecture is rendered the more probable by the acknowledged fact of bites upon the face and hands being always more dangerous than when the tooth had previously passed through articles of dress.

"*P. B. Haxton*."—1. Write to the secretary at the college. 2. Vesalius was born at Brussels in 1514. He was one of the first who exposed the errors of Galen in anatomy. Having opened the body of a Spanish nobleman, whose heart was said to have palpitated when the thorax was cut into, Vesalius was brought before the Inquisition, and was only saved by undertaking a pilgrimage to the Holy Land. On his return he was wrecked on the island of Zante, where he perished of hunger in the fiftieth year of his age. 3. In Conduitt-street.

"*A. B. G.*"—If five years have been passed by the pupil in medical studies under a general practitioner, without the existence of indentures, we should think that the matter could be so arranged as to meet the requirements of the Hall.

"*Nicator, Hartlepool*."—Question 1. Yes.—2. There are no regular charges.—3. No. Indentures of apprenticeship are requisite. In reference to the Poor-law Union, if the medical practitioner obtained his appointment prior to the election to which our correspondent refers, he is considered as entitled to a preference; not otherwise.

"*Dr. Davenport*."—The paper has been received, and a private communication has been sent by this day's post.

"*A Real Reformer*."—The Medical Registration Bill is just where it was. There is no prospect whatever of its passing into a law.

"*A Union Surgeon*."—Our correspondent need exercise no fears in reference to the parties mentioned. We only wait permission to publish the document.

"*Mr. Edmondson*."—We cannot promise an early insertion for the papers, but, as soon as we have fulfilled our engagement to contributors whose communications have not yet appeared, we will endeavour to find room for our correspondent's article on "*Gangrena Senilis*."

"*Galen*."—The term embraces all those concretions which resemble stones generated in the stomach and bowels. It is derived from two Greek words—*enteron*, an intestine; and *kithos*, a stone.

"*An Army Surgeon*."—The letter arrived too late for insertion in the present number.

"*Magister*."—The Company is compelled to demand proofs of a candidate for the licence having served an apprenticeship of five years. This part of the act of 1815 is, however, evaded in a variety of ways.

"*Dr. Searle, Bath*."—The request shall be attended to.

"*M. R. C. S. E.*"—We cannot give an opinion on the probability of obtaining an engagement in the city alluded to. Either of the new-papers published there would answer the desired end.

"*Mr. Wm. Pritchard, East Retford, Notts*."—We will attend to the request made.

"*Homo*."—Address the different secretaries of the universities, and the required information will be immediately given.

"*Calvities*." writes us as follows, in reference to Mr. Syme's appointment:—"Your contemporary has gone on the wrong scent, in attributing the recent appointment at University College Hospital to Scottish influence. The true explanation of the matter is justly due to you—you who have taken a more calm and reasonable view of the matter. 1. Independently of the desire of the council to obtain the services of the best man, it must be borne in mind that, with the exception of one or two of the physicians and the professor of surgery, the other gentlemen connected with the place have no other sources of emolument beyond the fees of the pupils, and that it is essential to their existence to connect 'attractive names' with the institution. 2. Mr. Syme is a very distinguished and a suitable man, whose inclination, on private as well as professional grounds, has led him this way, and his services were gladly accepted. 3. In all probability the chair of surgery will, before long, lose its present ornament (Professor Cooper), and it was necessary that Mr. Liston's successor should, like himself, have no intention of placing himself in the road to this appointment of one of the directors of the college, who has long had an eye to it for himself."

"*Mr. A. W. Close, Manchester*."—A private communication has been sent.

"*Mr. Chas. Horace Wall, King's-road, Chelsea*."—Communication received.

"*Dr. Octavian Ryle, Ipswich*." writes us as follows, in reference to chloroform:—"Before we can unanimously hail the discovery with delight, we must know, see, and hear considerably more of its effects. No one can, I presume, for one moment hesitate to acknowledge, at least those who have witnessed its exhibition, that it possesses a quite pre-eminently superior to that produced by the inhalation of the vapour of ether, although, as to the injurious consequences likely to accrue from its use upon a system depressed by disease, or where any constitutional idiosyncrasy exists to head or heart affection, is a question still to be solved. Time alone can authorize

medical men in speaking positively as to its real merits. Public opinion in such a discovery is greatly influenced; and very justly so, according to the generally received views entertained by the profession at large. If admissible in midwifery, a few questions suggest themselves to me, viz.—1st. When, and in what stage, ought it to be given? 2nd. Will uterine contraction go on as vigorously under its use as it would without it? 3rd. Might it not produce serious injury to the brain of the unborn foetus through the medium of the placental circulation, the mother, of course, being previously sent under its full influence? 4th. How long would it be safe to keep a person in a state of insensibility? These are questions which I must leave to an abler pen to define. In natural labour, expulsion being completed 'viribus naturæ,' its exhibition, I conclude, would be contraindicated.

"*Dubitans*."—There is no danger from the Company, but there is from private informers.

We have received from a subscriber not on our roll, an application for our Chart of Chemical Analysis, with certain arguments which he considers support his request. Our answer is short, and we hope, be held satisfactory. 1. Our arrangements already made preclude our giving charts to the extent involved by our correspondent's request. 2. The investigation of claims made through bookellers, or by private letters, would involve a labour, expense, and annoyance we do not feel called upon to incur, and this the more, inasmuch as all our exertions in so invidious a task would certainly end most unsatisfactorily. 3. Though feeling a proper amount of obligation for all support, whether for short or long periods, through the trade or direct to the office—an obligation we endeavour to repay our friends by making our Journal worthy its cost—we may yet be well excused for wishing to make some special, though certainly needless, acknowledgment to those subscribers whose names have been under our own eye enrolled in our own books through successive years as steady and cordial supporters. A compliment to them must be much misapprehended if treated as an affront to our other friends.

"*J. B.*" will excuse our omission of his letter. Its object is more than answered by the letters of Dr. Roget and Mr. West.

"*S. B. C.*"—We are much obliged by the tender of full details of the case of Clark v. Freeman. We have given as full a notice of it as its importance demands, or the pressure of more essential matters will allow.

"*Mr. H. B.*"—We have secured, through another channel, the information we wished.

"*M. D. Clifton*," should have favoured us with his name. His strictures on the recent advertisements represent a very general opinion.

"*F.R.S.*" is quite right in his opinion that the report of the arbitrators in Dr. Marshall Hall's case should be published. The conduct of that physician and his friends has made it public property.

"*Medicus*."—We have no space for the note. The underbred spleen of unprincipled rivalry is of small authority in the profession. The paper promised would be useful.

"*M.D.*" suggestion of a series of medico-legal cases is not without value.

Several communications and papers have reached us which have not yet had consideration.

"*A Scotch Surgeon*."—It would be only to repeat our opinions to publish this note. To make the choice of Mr. Syme a matter of accusation scientifically, is just to show how reckless, as well as clumsy, some are in inventing and using matter of reproach and calumny. If a better man had been passed over something might be said; but to reproach a public council of a new medical school with not adopting formally a system of nepotism and local intrigue in choosing a surgical teacher is too absurd—so absurd, indeed, as to show that the insignificant potter made on it is merely the affair of that well-known newspaper correspondent "*A Father of a Family*."

Letters and communications have also been received from Agriicola; Students; Mr. Balme; Medicus; Anti-quack; A Constant Subscriber, Abergavenny; P. B. Haxton; A. B. C.; Nicator, Hartlepool; Dr. Davenport; A Real Reformer; A Union Surgeon; Mr. Edmondson; Galen; An Army Surgeon; Magister; Dr. Searle, Bath; M. R. C. S. E.; Mr. Wm. Pritchard, East Retford, Notts; Homo; Calvities; Mr. A. W. Close, Manchester; Mr. Chas. Horace Wall, King's-road, Chelsea; Dr. Octavian Ryle, Ipswich; Dubitans; J. B.; S. B. C.; Mr. E. B. M. D. Clifton; F. R. S.; Medicus; A Scotch Surgeon; Mr. Brown, Ballinglass; Mr. Fulham, Earl Shilton; Dr. Murney, Monaghan; Mr. Westcott, Montague-street; Mr. Allott, L. Watoyland; Mr. Nunn, Wexford; Dr. Copeman, Norwich; Mr. Mulranny, Donegal; Mr. Houghton, Lytham; Dr. Lane, Newmarket; Mr. Allan, Killington; Mr. Hely, Ravenstone; Mr. Hodgmann, Margate; Mr. Alcock, New Ross; Mr. Berry, Mallow; Mr. Clarke, Lynton; Mr. Price, Pont-y-Frydy; Mr. Binks, Pendleton; Mr. Watson, Burnopfield; Mr. Ryder, Castbarry; Mr. Armstrong, Haworth; Mr. Sankey, Naldstone; Mr. Square, Doncaster; Mr. Teale, Leeds; Mr. Aston, Fleetwood; Mr. Ryan, Tipperary; Dr. Hayes, Killinichy; Mr. Cooke, Cley; Mr. Rose; Dr. Fletcher, Gloucester; Mr. Gillard, Leeds; Mr. Daniel, Newport Pagnell; Dr. Wing, Southampton; Mr. Tayham, Burton-in-Lonsdale; Dr. Foley, Kilrush; Mr. O'Brien, Johnstown; Mr. Burman, Walth; Mr. Jenkins, Carmarthen; Mr. Bayley, Odham; Mr. Perry, Marden; Mr. Pinden, Horsforth; Dr. Meredith, Cork; Mr. Crooke, Ouseburne; Mr. Tidbould, Chumleigh; Mr. Watson, Oundle; Mr. Butcher, Ware; Mr. Mayhew, Stradbroke; Mr. Green, Blackford; Mr. Connor, Battersea; Mr. Irving, Lambourton; Mr. Gray, Houghton-le-Spring; Mr. Terney, Leyburn; Mr. Whittaker, Wicksworth; Dr. Hornblow, Leamington; Mr. Johnston, Cockermouth; Mr. Whiting, Lynn; Mr. Gibbons, Congleton; Mr. Edwards, Ingatstone; Mr. Amyot, Diss; &c.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S., Surgeon to the Royal Westminster Ophthalmic Hospital. Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

LECTURE II.

ON WOUNDS AND INJURIES OF THE CHEST.

Inflammation of the pleura; symptoms; effusion of fluid; its danger in wounds of the chest; signs indicated by auscultation and percussion; inflammation of the lungs; symptoms; the three stages of pneumonia; signs of pneumonia discoverable by auscultation; formation of false membranes in pleuritis; compression of the lung in cases of pleuritic effusion.

It is not my intention, in the following observations, to give a history of, or even the whole of, the symptoms and the consequences of inflammation of the pleura and the lungs. It would be out of place. I am merely desirous of drawing attention to such of the principal facts as it may be necessary to consider when these inflammations and their consequences are caused by wounds or external injuries.

Acute idiopathic inflammation of the pleura usually commences by rigors, preceded, perhaps, by some signs of general uneasiness, which soon become those of great febrile excitement. Pain is early felt in the side in the course of the sixth, seventh, and eighth ribs, on the point corresponding generally to the seat of the inflammation. It is usually sharp and darting, is called a stitch, occupies rather a small space (the point *de cote* of the French), and is always increased by drawing a full breath or by coughing. The breathing is short, from the disinclination to fill the chest, which increases the pain; and it is hurried, and sometimes takes place as if by jerks, from the necessity for its repetition, in consequence of the smallness of the quantity of air admitted at each attempt. When the attack is very severe, the patient tries to breathe with the healthy side only, and the lower ribs of the affected side are moved but slightly, and with evident caution. If the inflammation has been caused by extreme violence, pain will be also felt at that part in particular. When acute inflammation supervenes on a part already in a morbid state, it will necessarily be felt at the spot affected, although it is not always present, unless sought for by a cough, or by a deep inspiration.

When inflammation has affected the pleura covering the diaphragm, and especially when caused by external violence, the pain will be felt lower down, so as to lead to the suspicion that it is also abdominal. When jaundice supervenes, as it has been known to do, it must have been an accidental circumstance, or from extension of disease through the substance of the diaphragm,

as is occasionally seen in wounds implicating the chest, the diaphragm, and the liver, and complicating in these instances the original disease or injury.

A cough is not a constant accompaniment of the first stage of disease; and, when present, it is usually dry, slight, infrequent, and does not attract attention, unless accompanied by a thin mucous expectoration, indicating the presence of a disposition for bronchitis, if frothy; for pneumonia, if reddish. The patient usually lies on his back whilst the pain is severe, and has a great indisposition to turn fully on the affected side, although he inclines towards it. At a later period, when effusion has taken place, he turns on this side to relieve the difficulty of breathing, caused by the pressure of the fluid on the sound lung through the bulging of the mediastinum; but the manner of lying, or *decubitus*, as it is called, is of little importance, and should be subservient to the feelings of the patient, who sometimes only comfortable when raised to nearly an erect position.

When the complaint is not subdued at an early period, an effusion of serous fluid takes place, more or less in quantity, according to circumstances. In from twenty-four to forty-eight hours the whole cavity of the side affected has been known to be filled, giving rise to symptoms dependent on the degree to which the effusion has taken place; and this is the evil which in injuries penetrating the cavity of the chest is most to be feared. When the external wound has been closed, or is so partially closed as not to allow its escape, it is commonly the immediate cause of the death of the patient. Its formation and early evacuation are, therefore, the most important points to be attended to in these particular cases.

The respiratory murmur, discoverable by the ear or by the stethoscope, becomes fainter as soon as the pain prevents the ordinary distention of the affected side of the chest, and diminishes the quantity of air which usually penetrates the lung in any given time. As soon as a thin layer of fluid commences to be thrown out between the pleura, this murmur becomes fainter, and as soon as it is complete this sound ceases. If the patient can bear percussion, the side affected yields a dull dead sound, instead of the ordinary clear sonorous one of health. The position of the patient, when erect, by causing the fluid to descend, may allow of the respiratory murmur being heard at the upper part of the chest, although it may only be perceived in front, but not behind, when he lies on his back, until the cavity is filled, when this sound altogether ceases. At the spot in the back corresponding to the root of the lung, or at any other point at which previously formed adhesion may retain the lung against the wall of the chest, some respiratory murmur may yet be distinguished, until this part of the lung shall also have yielded to the general compression, so as to be temporarily impervious, or have become solidified, under the continuance and the extension of disease. Whilst this is taking place in the affected side, the other lung is called upon

to make up the work of aërication of the blood; it labours harder, its functions become more energetic, and that side of the chest is more distended; the respirations become quicker, fuller, and louder, and the vesicular murmur is said to resemble that of a child—to be puerile.

When the lung begins to be compressed by the circumambient fluid, and the respiratory murmur ceases, a peculiar modification of the respiration through the large bronchial tubes may be heard, constituting bronchial respiration. It occurs in pneumonia, in pulmonary apoplexy, and in tubercular disease when the lung is solidified. When the voice is heard through the stethoscope in these complaints, the peculiar sound emitted is called bronchophony.

In pleuritic effusion, the voice, when carefully examined, sometimes obtains another character, of comparatively little importance, called *ægophony*, a sound which may be easily confounded with pectoriloquy and bronchophony, of the latter of which it is a modification more often alluded to than observed. Laennec, who first described it, says, page 70, tome 1, "Traité de l'Auscultation":—"Simple *ægophony* consists in a peculiar resonance of the voice, which accompanies or follows the articulation of words. It appears to be sharper than natural, more acute and somewhat silvery, vibrating as it were on the surface of the lung, more as an echo of the voice than as the voice itself. It rarely enters the tube of the stethoscope, less frequently traverses it completely. It has, besides, another peculiar character, which is constant, and from which I have taken its name. It is a trembling, bleating, or shaking sound, like that of a goat, the tone of which animal it greatly resembles. When it occurs near a large bronchial tube, as in the root of the lungs, a more or less marked bronchophony is often superadded," thus giving rise to various modifications of voice and tone, which Laennec considers to resemble more particularly that made use of by the Polichinello, the Punch of the streets. This sound may pervade the whole side; it is, usually, however, most distinct near the inferior angle of the scapula, the patient being erect. It only exists where the effused fluid is small in quantity; is never a dangerous symptom; and its return, after it has been present and has disappeared, is a sign that a part of the effused fluid has been removed. It is a sign principally of value in distinguishing between pleuritis and pleuro-pneumonia and pure pneumonia, in which latter it is not heard, as no fluid is thrown out on the pleura.

In pneumonia, or inflammation of the substance of the lung, as distinct from any implication of the pleura, which, however, most frequently obtains after blows on, and in cases of penetrating wounds of, the chest, the symptoms differ. The ordinary febrile symptoms are similar to those of pleurisy, only more intense, and usually precede for a day or two the local symptoms of difficult respiration, pain, and cough. The dyspnoea varies in different people. In some, it is only a slight embarrassment of breathing, which is partly removed by accelerating the

number of the respirations, which are augmented from twenty to thirty, forty, and upwards; in children, to sixty and seventy, marking a great degree of distress and of extent of inflammation, from which, when they are so frequent, persons rarely recover. The patient can scarcely speak or lie down, and is obliged to be supported in that which he finds to be the least uneasy position. Pain is not always present; its absence, however, cannot be relied upon as indicating any particular modification of disease, and Andral affirms that it is only absent when the substance of the lung is affected, and not the pleura. That pain is not a necessary concomitant of pneumonia is admitted, but that it is usually present, and with great intensity, in many cases, cannot be doubted. When present, it is usually an early symptom, deeply seated below the sternum, under the breast, extending to the scapula. When in the sides, it is more acute and fixed, and is probably conjoined with the pain of pleurisy.

The pulse is quick and sharp, occasionally full and hard, at the commencement of this complaint in young and healthy persons, although it is sometimes small and weak from the beginning, where there is little general power; but this rarely occurs in cases of injury, and is not to be relied upon in them, in opposition to other symptoms.

The cough is usually dry in the commencement of idiopathic pneumonia, rarely recurring by paroxysms, and is without any particular indication; it is soon, however, accompanied with a slight mucous expectoration, which, after some twenty-four or forty-eight hours, begins to assume certain and peculiar characters of the utmost importance, as indicating the existence and the different stages of the disease. We owe our information on this point principally to Andral, and it is deserving of the greatest attention. "On the second or third day the expectoration becomes bloody. Each sputum, spit, or crachet is composed of mucus intimately combined with blood; that is, not simple streaks or strise of blood as in catarrh, nor is it pure blood as in hæmoptysis. Each sputum is either of a yellow, or rust, or even red colour, according to the quantity of blood intimately mixed with the mucus. These sputa become at the same time tenacious and viscous, adhering so intimately together as to form a homogeneous transparent whole, readily gliding, however, from the basin in which they are held, on an ordinarily sufficient inclination being given to it. At this period or stage of the disease the sputa adhere strongly to each other, but the mass is not sufficiently viscid to stick to the sides of the vessel. When no further change takes place in the sputa, the inflammation rarely passes beyond the first stage of obstruction or engorgement, or swelling, or the *engorgement* of Laennec, Andral, and the French writers. When they attain to a more viscous state, and adhere to the inside of the vessel in which they have been received, the progress of the inflammation to the second stage, or that of hepatization, may be feared. In almost every case where the viscosity of the expectorated matter increases, respiration becomes null or bronchial. Percussion of the chest yields a duller sound than before, and the inflammation has attained its highest degree. The expectoration, after being some time stationary, changes its character, if the complaint is to terminate by resolution, or by death, or to pass into a chronic state; when, by resolution, the redness and viscosity gradually diminish, and at last disappear. If the rust colour and the viscosity should return, there has been a relapse, and the reappearance of the other symptoms prove it. When the inflammation is of the most serious nature, and about to terminate fatally, the expectoration diminishes, and at last ceases. In some it only diminishes because it cannot be discharged, and accumulates in the trachea, the larynx, and the bronchi, until the patient is destroyed. In some rare cases the matter secreted is spit up nearly to the last, and in others, still rarer, the approach of death in the last stage is characterized by a brown expectoration which cannot be mistaken for either of the others which preceded it. If the pneumonia passes into the chronic state, the expectoration becomes yellowish, or somewhat greenish, and at last is purely catarrhal."

Delirium is not an uncommon symptom, when the inflammation of the lung is intense in persons of powerful constitutions, particularly during the exacerbation of fever in the night. It yields with the others, when relief is obtained. When, however, it comes on at a later period of the complaint, or when the accompanying fever is not purely inflammatory, and in persons weakened by exhaustion and privation, it is usually a fatal symptom, if at all continued.

When mild it often occurs after repeated and efficient bleedings, which have subdued but not entirely removed the disease, and yields to opiates and gentle stimulants, which also remove the pain, which sometimes, however, remains in a milder degree than before.

The ear or stethoscope, applied to the surface of the chest opposite the affected part, which must thus be sought for, if not indicated by pain, discovers, soon after the commencement of the disease, that the natural murmur cannot be distinctly heard, having been at first partly obscured, and after a time entirely superseded, by a peculiar noise, called by Laennec *rhonchus*, or *râle crépittant*, the crepitating or crepitous rattle or rhonchus of English authors. In its purest state it has been likened, by Dr. Williams, to the sound of a lock of hair rubbed close to the ear; by Andral, to that made by rumpling a fine piece of parchment; by Laennec, to that which is produced by what under ordinary circumstances is called the crepitation of salt, when scattered in small quantities on red-hot coals. The dry sound of the burning salt is accompanied by a modification, dependent on the humidity of the part from which it proceeds; which is presumed to depend on the inflammation being confined to the air-vesicles of the lung, partly filled with mucus, whilst the small terminations of the bronchi which communicate with them are also compressed by the swelling of the surrounding parts, and thus, by preventing perfect freedom of inspiration, give rise to this abnormal or peculiar murmur. This crepitating rhonchus is heard at first in a small part of the lung, generally at the lower, rather than at the upper, part; and marks the first stage of the disease. The opinion of Laennec as to the rhonchus crepitans being an accompaniment of the very first stages of inflammation of the lung has been doubted, as it has whether effusion accompanies the first stage of inflammation of the pleura; and, in all probability, some change must precede in order to give rise to it. As it is, however, the first sign which can be readily perceived, it may be admitted in practice as denoting the first stage. Dr. Stokes, however, believes that it is preceded by a puerile respiration, which is an earlier sign of the commencement of the complaint. This crepitation is not of long continuance; the vesicular murmur is either restored, or the crepitating rhonchus ceases to be heard, in consequence of the second stage having commenced, or that of hepatization, in which the small air-vesicles are no longer pervious; and the sound of the breathing, which is now heard, is that of the air more forcibly driven into the larger bronchial tubes causing bronchial respiration, which is described as altogether different, being no longer vesicular, or crepitating, but whiffing, like that caused by blowing forcibly through a quill, or as if little gnats of air were blown in, or blown out. The voice betrays to the ear of the auscultator another sign; it descends into the pervious bronchi, and, being conveyed to the ear through the solid lung, gives rise to that peculiarity of voice which is called bronchophony, a correct knowledge of which, as of many other points of auscultation, can only be acquired by repeated observation.

When the inflammation of the lung is confined to a small and deeply seated spot, auscultation may not reveal the evil until its extent has been increased; or it may possibly be overlooked,

through the sound part of the lung becoming more active, and giving forth, in consequence, a stronger and more puerile breathing, which misleads the listener.

When the vesicular murmur cannot be heard, when the rhonchus or crepitating râle or sound, is not present, and bronchial respiration and bronchophony can only be distinguished, the case is one of great anxiety and danger. The second stage of hepatization is passing into the third or purulent infiltration, of which auscultation shows no further signs, although the matter secreted may be expectorated, in proof of what has taken place. Pus thus formed, it was first declared, and it is still steadily maintained by some of the best French writers, is not deposited in the form of abscess, but infiltrated in the parenchymatous substance of the lung, finding its way into the larger bronchial tubes, or is poured out from some parts of their secreting surface.

Upon this point, M. Laveran comments in the 57th volume of the "*Mémoires de Chirurgie Militaire*" for 1844, having related a case in which an abscess had formed of the size of a nut, a second in which it was the size of a small egg, and a third in which there were several small abscesses communicating with each other. Admitting that these abscesses rarely occur, he attributes that rarity to the parenchymatous tissue of the lung being fibrous rather than cellular. M. Grisolle, in his able work on Pneumonia, has collected twenty-two cases of abscess in the substance of the lungs, rendering its occurrence no longer a disputable point. The accuracy of the statement to the contrary I have always been disposed to doubt, from my own repeated dissections having proved the reverse.

The effects of inflammation of the pleura are well marked: the first is to diminish, if not to annul, the secretion of the exhalation, or halitus, by which it is lubricated; so that its surfaces can no longer glide without noise upon each other. The patient is often made aware of the difference by some uneasy internal sensation; the auscultator, by a rubbing or creaking sound emitted as the inflamed pleura, no longer smooth and polished, rubs against each other, and become covered by a thick, effused matter, although not actually separated by a liquid. It is a sound which cannot exist after separation has taken place by the intervention of a fluid, or after adhesions have formed; it is, therefore, an early and transitory sign, is frequently interrupted, and returns, as if by jerks, three or four times, repeated in succession. The pleura, when examined, after being attacked by inflammation, shows, at first, but little sign of derangement on its serous surface. It quickly, however, exhibits numberless small vessels, now carrying red blood, which are principally seated in the sub-serous cellular tissue, reddening the membrane more deeply in one part than another. These soon begin to take on a new action, leading to the deposition of coagulable lymph or fibrine, which adheres to the inflamed surfaces. These depositions soon assume the determinate form of very thin layers, constituting what are called false membranes; whilst a serous or sero-purulent effusion takes place, even to filling the cavity of the chest, and which may or may not be ultimately absorbed. When coagulable lymph is first deposited, and about to form a false membrane, it is soft, of a greyish-white colour, possessing no appearances of organization. Red points are, after a time, perceived in it, which soon become red lines or streaks, on the surface. This organization of the lymph does not depend on the period which has elapsed from the commencement of the complaint. It is seen in the first day of the disease in some cases, it is altogether absent in others, and depends much on the state and habit of the patient. The lymph is sometimes deposited in small drops or spots; in others, in patches of a greater or less size, varying according to the extent of the inflammation which has produced them. When a false membrane is once fully formed, it becomes itself a secreting surface, and may go on augmenting its thickness to so great a degree as materially to

diminish the cavity of the chest. I have seen the pleura with a solid deposit of this kind much more than an inch in thickness. In general, it is found in distinct layers, super-imposed one on the other; and, whatever may be their thickness, they commonly admit of being separated from each other. The false membranes thus formed, resembling cellular tissue in their properties, may ultimately become cartilaginous, and even bony. When adhesions form between the pleurae, they become lengthened with time; and although they impede the motion of the lung at first, and may give rise to some uneasy sensations, they gradually become elongated, and give no further inconvenience. The fluid thrown out, independent of the lymph, is serous; it rapidly follows the establishment of inflammatory action, and is often mingled with flocculi of lymph, which are seen floating in it, and is, therefore, more or less turbid, resembling whey. It is often nearly colourless and transparent, particularly after inflammation; when the consequence of injury, it is often tinged with blood, forced out from the capillary vessels of the pleura, or of the false membrane, if not caused by the deposition of the fluid coagulated in the first instance after the receipt of the injury.

The quantity of fluid thus thrown out varies from an ounce to several pints; it gravitates according to the position of the patient, unless, when from old adhesions between the pleurae, it is confined to particular parts. When the cavity of the pleura is free, and the fluid is in quantity, it compresses the lung, and diminishes its size by pressing or squeezing the air out of it; it is thus pressed towards the vertebral column, and so greatly diminished in size and augmented in density as to be useless for the purposes of respiration. Whilst the lung is undergoing this compression to its utmost, the mediastinum also yields, and bulges into the opposite side of the chest, carrying the heart more or less with it; so that, when the left side of the thorax is thus affected, the heart is seen and heard to beat on the right. The diaphragm now yields, in turn, more on the left than on the right side, from the obstacle to its descent afforded by the liver. The intercostal muscles and ribs resist for a considerable length of time, for weeks, the internal pressure; they at last, however, yield: the ribs may even turn a little outwards, whilst the interspaces in thin persons are said to fill out, so as to render that side of the chest nearly smooth; the size of that side, when measured, being larger than the other, in some instances by even two inches, but this rarely occurs unless the fluid within is purulent, and the disease of long standing.

It has been supposed that the deposition of albumen, fibrine, or lymph, in layers, in the formation of false membranes, is consequent on the effusion of the colourless fluid from which they are deposited; and that the change of the transparent to a whey-like fluid is a precursor of this deposition. But this is certainly not always the case, these false membranes being generally found where death occurs early from wounds of the chest, even when the fluid is transparent, or discoloured red; although it may be admitted that, when the pseudo-membranes are thick or in several layers, the serous fluid is thicker, more turbid, and similar to purulent matter.

That a deposition may take place from a fluid, the product of inflammation, which is scarcely turbid, must be admitted; and that from this a deposition of whitish matter may take place, lying upon, but not actually in the first instance adhering to, the part in which it is deposited, cannot be doubted. I have seen this take place in inflammation of the internal layer of the cornea, and of the anterior covering of the iris, after the operation for extracting a cataract; I have also seen it covering the capsule of the lens after injury, rendering it quite white; yet on the evacuation of the aqueous humour by an opening in the cornea, made in one instance for the purpose of removing a small piece of copper cap—the original cause of irritation, the white

deposit was discharged with the aqueous humour, and the capsule of the lens left perfectly transparent.

After a time, and particularly in wounds of the chest, the effused fluid becomes purulent, the lung, compressed to a small flattened surface, adheres to the spine by what was its root, if no other adventitious attachments have retained it in a different position, and the pleura has become a thick, yellowish-white, irregular, honeycombed-like sort of covering for it, as well as completely lining the chest. The serous as well as the purulent effusion are both free from any unpleasant odour, unless a species of gangrene has taken place, when the latter becomes very offensive, and of a greenish-black colour, as well as the substance of the false membranes extending to, and sometimes beneath, the pleura covering the condensed lung, into which openings have been even thus made.

In some cases the surface of the pleura is covered with small tubercles, some as large as a filbert; in others it appears to have a reticular or honeycombed appearance; and in particular cases, large irregularities or excavations may be observed in it when much thickened, being evidently spots of ulceration, which, if they had proceeded, would have ended by allowing passage to the matter outward, until it formed an external abscess implicating, in all probability, one or more of the ribs, and giving rise to an exfoliation which, by being separated internally, might in time be the cause of further mischief, if not previously covered by a thin layer of false membrane. When chronic pleurisy succeeds to a more acute attack, or alternate with each other, and particularly after penetrating wounds of the chest, several layers seem to be laid down one upon the other, until the pleura costalis would appear to have attained in some instances to an inch or more in thickness, and somewhat resembles a solid cartilaginous substance. It is never so thick upon the pleura pulmonalis; nevertheless it is quite thick enough in most instances to prevent the lung from again dilating, the substance of it being generally quite permeable to, although so compressed as to be deprived of, air; flattened, drawn upwards towards its root against the mediastinum and spinal column, unless, by some previous adhesion, such course has been prevented, and it adheres, as it has been often known to do, to the side of the chest. As that adhesion may occur in more than one spot, so may the effusions or deposits take place between them, constituting circumscribed sacs. Dr. Roe gives one remarkable instance, in which the fluid contained in the lower part was evacuated by operation, but that in the upper part was only discovered after death, there being between thirty and forty ounces of pus within the general cavity. The lung, instead of being compressed in a healthy state, may have been the subject of previous disease, or tubercles may form in it, or an abscess or spot of gangrene may give rise to a communication between the inside of the lung and the cavity of the chest, into which the air escapes, rendering the case more complicated.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. MCARTHY, M.D. Paris, &c.

SECOND SERIES. CHAPTER V.—(continued).

In diseases of the respiratory organs physical signs are derived from several sources: inspection, in the first place, which shows the presence of tumours, or alterations of shape of the thoracic walls, or fistulae communicating with the respiratory organs; whether the origin of these fistulous passages be disease of the lung or pleura, or affections of the parietes of the chest, palpation assists us in detecting loss or dimi-

nution of the resonance of the thorax during the articulation of sounds, and is often put in requisition for the diagnosis of pulmonary disease. Auscultation and percussion, the elements of which it is not our province to explain, are also powerful assistants to the diagnosis; and succussion finally furnishes us with a sign by which one particular malady may be easily detected. We will now proceed to the appreciation of these various methods in the discrimination of thoracic maladies.

In bronchitis, increased thickness of the mucous membrane of the air-passages, or the accumulation of fluids within their cavity, are the causes of those sounds which auscultation detects, and which are denominated rhonchi. These sounds vary *ad infinitum*—from the smallest crepitus to the loudest bubbling murmur, and from the slightest wheezing to the most hoarse, snoring rhonchus—in consequence of the varieties of thickening of the mucous membrane, of thinness or viscosity of the fluids by which they are occasioned. In capillary bronchitis a crepitus is often heard quite as minute as in pneumonia; and by insensible degrees, in simple bronchial inflammation, changes into the largest bubbling murmur. Sibilous and snoring sounds appear to depend more upon thickening of the bronchial membrane than upon the accumulation of fluid secretion. The humid râles, on the contrary, are produced by the bubbling of air forced through a more or less abundant, and more or less viscid, secretion; when the affected branches are large the bubbles are few and loud; when the smallest bronchial divisions are the seat of the bruit, it acquires a crepitating character. These sounds may be heard during inspiration or expiration. The crepitus of pneumonia has been asserted to exist only in inspiration, and that of capillary bronchitis in expiration also; but the assertion is not correct. Coughs, a deeper respiration, the act of speaking, often change these sounds, and cause them to appear or to cease in the same subject, by occasioning a change in the relative position of the bronchial fluids, and the air which is to traverse them. When acute bronchitis is attended with much oppression, and a tendency to emphysema, sibilous râle, often mixed with a sub-crepitus, is distinctly heard in most parts of the thorax. In chronic bronchitis all these sounds may be detected, particularly the sub-mucous rhonchus, which is generally found on both sides, in the inferior and posterior thoracic regions. When a bronchus is much dilated, a cavernous respiration and pectoriloquy being often present, a tubercular excavation might be supposed to exist if, on percussion of the chest, the resonance was not found to have remained natural.

In pneumonia, percussion, so long as the lung is merely congested, does not furnish much assistance to the diagnosis; but, when hepatization intervenes, dullness is always found. In lobular pneumonia, however, percussion does not show any diminution of resonance, nor in limited forms of central pneumonia. On auscultation, the respiratory murmur is found to be replaced during the first stage by a fine crepitus, which you are well acquainted with; and during the second, when the condensed pulmonary cells admit no more air, a tubular or bronchial respiration is detected. When the lung gradually regains its elasticity and permeability, the crepitus reappears, and is then called *crepitus redux*—a sound of favourable omen. It sometimes happens that this rhonchus redux is not observed; but *souffle* persists for several days after the cessation of all functional symptoms, gradually losing its intensity, and finally disappearing altogether, natural respiration taking its place. If an abscess or gangrene of the lung terminate pneumonia, a gurgling murmur is heard; but purulent infiltration of the lung is not to be distinguished by auscultation alone from the second stage of pulmonary inflammation. During congestion of the lung the resonance of the voice is natural; bronchophony is present in the second stage, and, in abscess or gangrene, pectoriloquy. The vibration of the walls of

the chest, during the emission of voice, is diminished, but not in so marked a manner as in pleuritic affections. These various signs are observed in most cases of pulmonary inflammation, but in lobular and central pneumonia they are absent, and the diagnosis must be derived from other sources.

Emphysema is characterized by increased resonance of the chest, on percussion, and diminution of intensity of the respiratory murmur. These two signs are alone present in emphysematous subjects during the intervals of those paroxysms of asthma with which they are visited, and when these are present, the chest seems filled with all the various rhonchi of bronchitis, chiefly the sibilous and crepitating sounds. When, in consequence of the progress of emphysema, some permanently distended air-cells form a projection above the surface of the lung, a special creaking sound may be detected. In this disease inspection also assists the diagnosis, and points out a modification of the shape of the chest, which becomes more round, and, as it were, bulged, the antero-posterior diameter being increased; above and beneath the clavicles, no depression is met with as in healthy cases, but rather a swelling, which shows the tendency of the lung to expand and occupy more room.

In phthisis, percussion of the chest should never be neglected. Auscultation may leave some doubt in the mind, but percussion removes it. When tubercles are few and isolated, this method furnishes only negative results, but the resonance of the thorax diminishes if their numbers increase. The dullness is still more complete when the morbid secretion softens, and is always present, except in extremely few exceptions, when excavations have formed: it is then produced by the existence of fluid in these caverns, and the infiltrated and condensed conditions of the portions of lung by which they are surrounded. Another sound is in these cases produced by percussion, which Professor Piorry very justly calls hydro-aëric sound, and which had been hitherto denominated "bruit de pot fêlé;" but it is obtained only when, percussion being exercised upon the region of the walls of the chest corresponding to the seat of the pulmonary ulcer, the mouth of the patient remains open. In the very earliest stages of consumption, auscultation often teaches us nothing. But, in proportion as the disease advances, and the tubercular deposit is more abundant, the respiratory murmur decreases, the inspiration becoming shorter, weaker, and more rough, and the expiratory sound more pronounced, longer, and bearing a closer resemblance to soufflé. These modifications are chiefly observed in the superior parts of the thorax, and their signification is greater when they occur on the left side, because on the right side the expiration is naturally stronger and more prolonged. When the local damage advances, new physical signs are produced. The resonance on percussion daily decreases; on auscultation, particularly of the superior parts of the chest, a small humid rhonchus is heard, called cavernulous râle, because it takes place in small excavations. This bruit has some analogy with the rhonchus crepitant *redux* of pneumonia, and with some sounds of bronchitis; but the antecedent history of the case, the seat of the morbid bruit in the summit of the chest, and its persistency, clear up all doubts which might be entertained as to its nature. Sooner or later the small cavities aggregate and form a large excavation, which furnishes, on auscultation, different signs, according to its state of repletion or vacuity. In the first case, a loud bubbling rhonchus is produced whenever air is admitted into the cavern; variable, however, in loudness and intensity, according to the depth of inspiration or the presence of cough; when, on the contrary, the excavation is empty, a loud soufflé, called cavernous respiration, is distinctly heard. These two sounds may succeed to each other when the cavities are alternately full and empty. During the first period of phthisis, the tubercular deposit being rare, the resonance of voice is not modified;

but when the lung is condensed that resonance increases, and equals bronchophony in strength; pectoriloquy is present when excavations have formed.

Pleurisy, in its incipient stage, before the formation of any effusion, is not marked by any physical sign, except diminution of the respiratory murmur, caused by the pain, which prevents the patient from breathing with freedom. When the effusion forms, dullness on percussion is also noticed, proportioned in extent to the abundance of the morbid secretion, beginning in the posterior and inferior thoracic regions, and hence rising gradually, invading even the front of the chest, and sometimes occupying one entire side. This dullness may vary with the position of the patient, and is always more complete in pleurisy than in pneumonia; indeed, with the exception of some very uncommon cases of cancerous tumours within the chest, absolute dullness exists only in pleurisy. On auscultation, where the effusion is not very abundant, the respiratory murmur is simply weaker on the diseased side; but, in general, tubular respiration is present, and resembles so closely the soufflé heard in pulmonary consumption, that it is not possible to distinguish these two sounds from each other. Auscultation of the voice serves, however, to discriminate their true causes; bronchophony being present in one case, and ægophony existing in the other. If the effusion is very considerable, both soufflé and ægophony cease to be heard. In pleuritis the voice ceases to cause any vibration in the walls of the chest, a fluid—a bad conductor of sound—being interposed between the lung and the thoracic parietes. The application of the hand on the two sides of the chest will, therefore, in most cases of pleurisy, furnish a sign of much diagnostic value. In some instances of pleuritic inflammation, a crepitus is heard, which some have referred to a complication of bronchitis, but which we attribute to the presence of false membranes. When false membranes only have been secreted, a friction sound may be detected, sometimes so loud as to deserve the name of rasping bruit. This, however, is seldom the case in the acute stage, where the false membranes are soft and semi-fluid; at that period the friction sounds are of a capricious nature, often disappearing suddenly after being very distinct. But when the disease has lasted some time the friction becomes remarkably rough and loud, and may occasionally be heard without immediate application of the ear to the chest, and casually by the patient himself. Palpation may permit this friction to be discerned by the hand; after the cure of pleurisy, some dullness and weakened respiration may remain for ever in the diseased side. M. Christophe, of Strasbourg, calls *ægony* a modification of voice which he considers indicative of the presence of false membranes. On the same side with the effusion it not unfrequently happens that below the clavicle the expiration is prolonged and the voice bronchophonous, the lung being condensed by pressure, whilst on the healthy side the respiration is louder than during health (puerile). The conformation of the chest is often changed by abundant thoracic effusions; the diseased side increases in size, the ribs separate, and the intercostal spaces bulge outwards; when the disease cures, the side occasionally falls in, causing remarkable deformity.

We may also find in the pleura, gases, either alone or simultaneously with fluids; hence pneumothorax and hydropneumothorax. In the first case the resonance of the diseased side on percussion is enormously increased; the respiratory murmur is replaced by amphoric soufflé; the voice is extremely loud, and attended with amphoric buzzing. When fluid is also secreted in the pleural cavity, dullness replaces a part of the sonority already noticed, and a characteristic "metallic tinkling" is heard, caused by bubbles of air bursting through a fluid obstacle in their passage from the smaller bronchi into the pleura. If an idiopathic pneumothorax, not connected with perforation of the lungs, existed, this metallic bruit would not be heard. The chest is

very rapidly dilated in this disease; let us also add, that when the chest is suddenly shaken a sound may be heard analogous to that produced by agitating a vase half filled with water. This sound, indicated by Hippocrates, who attributed it to pleurisy, might be heard in one other case only, viz., in a case of hernia of the stomach, or colon, into the chest through the diaphragm; but on auscultation intestinal borborygmi would be detected.

The measurement of pulmonary capacity may also be a source of physical signs. Dr. Hutchinson, who devoted much attention to this interesting subject, asserts that the quantity of air which the chest can inhale varies with the size, weight, age, and habits of life, of each subject. Some general principles are, however, very clearly established by that learned physician's researches. Thus, in consumption, the pulmonary capacity always diminishes. The average of the capacity of the chest, being 224 cubic inches during health, falls in subjects of the same size, weight, age, &c., to 149 cubic inches in consumption. The difference is even greater at an advanced period of the malady: the average being 220; that of consumption descended to 88 cubic inches, and even in one case the capacity of the chest was reduced to 34.

ORIGINAL CONTRIBUTIONS.

REPORTS ON THE DISEASES OF FEMALES.

By EDWARD RIGBY, M.D.,

Fellow of the Royal College of Physicians, Senior Physician to the General Lying-in Hospital, Lecturer on Midwifery at St. Bartholomew's Hospital, Examiner on Midwifery to the University of London, &c.

The following case is one of organic sterility, which, from the small os and taper cervix uteri, may be called congenital, but considerably aggravated by the effects of inflammation.

L. C., aged twenty-nine, gaunt, haggard, pale, and, for her age, old-looking; married eighteen months; never pregnant.

Oct. 20, 1846. Complains of constant uneasiness of back in the situation of the upper lumbar vertebrae, and also of pain at the lower end of sacrum, increased by the passage of hard feces; with a feeling of wanting to evacuate the rectum, and yet of inability to do so. When this latter pain is bad, there is also much irritability of the bladder. Tongue dry, rough, and very pale; bowels regular only when she takes steel, which she does pretty constantly.

Before marriage the menses were very irregular, sometimes occurring only once in two, three, or even five months. After marriage they became too frequent and profuse, with coagula; but for the last two or three times they have been tolerably regular, although still with coagula. The last period arrived with much pain; the discharge stopped suddenly, reappeared as suddenly, and with much pain; and this occurred two or three times over. She expects them in two days.

From the description of her symptoms, she appears to have had an attack of inflammation of the cervix uteri and vagina about a year ago.

During the last fortnight she was attacked with severe pain of back and lower part of abdomen, and also of the lower lumbar vertebrae for which leeches and blisters were applied with benefit; she has since been taking nitric acid, in infusion of gentian, and latterly citrate of quinine, and iron.

Examination per Vaginam.—Os externum small and vagina very small; from which reason, and from the os uteri being so high up, it is reached with some difficulty; it is situated rather forwards, very small, nearly closed, and somewhat tender. The end of the cervix is so covered with a fringe of fibrinous excrescences, like minute polypi, that it is not easy to detect the os uteri at first. The upper extremity of the vagina is contracted and puckered, as if cicatrized. The uterine

sound was introduced with much difficulty, and would not pass beyond the os uteri internum. I, therefore, introduced the dilator, and dilated slightly; on closing its blade, the instrument passed immediately into the cavity of the uterus; on introducing the sound, it passed to the extent of nearly three inches, and somewhat to the right; on introducing the speculum, which was done with much difficulty, owing to the contracted state of the os externum and vagina, the above-mentioned little excrescences could be seen. The os uteri was livid, cicatrized, and granular; a slight bloody discharge was flowing from the os uteri. *Applic. argenti nitras ori uteri.*

R. Pil. hydrarg., gr. iij.; ferri sulph., gr. ij.; ext. hyoscyami, gr. v. M. ft. pil. ij. o.n.s.

R. Acidi nitrici dil., m. xv.; liquoris taraxaci, 3j.; infus. gentianæ co., 3j. M. ft. haust. ter die sumendus.

22. Catamenia came on without pain or coagula; feels much easier; pain of sacrum relieved; little or no pain in back; bowels regular. *Rep. med.* Leaves town in a day or two.

Nov. 10. Returned to town a few days ago, and I examined the os uteri with the speculum; it was more healthy. I applied the argenti nit. once more. Yesterday, after a little dilatation, I passed a taper sponge-tent, but to-day I find it has been of no use, having been dislodged by her cough. Dilated again to-day, and introduced a smooth metallic tent; the rough, cicatrized condition of the canal of the cervix was quite perceptible as it passed. *Rep. med.*

16. The metallic tent has been retained until yesterday, when it came away. The catamenia have come on. *Pt.*

20. The catamenia appeared on the 14th with slight pain; she had a little more pain the next day, but nothing like what she used to have. The discharge was natural in colour and quantity; no coagula. None of the upper pain of back. The lower, or sacral, pain seems connected with a hemorrhoidal diathesis, and confined bowels; says that quinine confines the bowels. I dilated the os uteri somewhat, and then passed a much larger metallic tent. *Extr. taraxaci om. nocte; sulphur. precep. et magnes. carb. o.m.*

Dec. 9. The tent slipped out last week, and she returned to town. The os uteri was still small; its lips very uneven from the above-mentioned little excrescences. I dilated it again, and passed a still larger tent; it produced great irritation at first, with vomiting and pain for some hours, which were relieved by hot semicupium, &c. *Rep.*

16. After wearing the tent a few days it slipped out, when the catamenia came on. I did not reintroduce it, as the canal of the cervix so quickly recovers its former contracted state. She has improved considerably in general health, so that in a month or so I will divide the cervix.

Sept. 3, 1847. I divided the anterior wall of the cervix early in January, and she wore the metallic tent for a fortnight, until the incision was healed, without inconvenience. She writes to-day, giving a favourable account of herself—"Much better than I have been ever since I married," and "I am much stronger, and feel more really well, upon the whole."

Dec. 27. Her mother called on me to say that the catamenia in August were more copious than usual. They appeared again on the 27th of September, but were then pale and scanty; since which time there has been no further appearance of the menses. She complains of pain above the symphysis pubis, which she ascribes to flatulence; also, of being very sick, with an unusual craving for food even at night. The breasts have increased in size; the bowels are confined.

R. Ferri sulph., gr. ij.; magnes. sulph., 3jss.; acidi sulph. dil., m. viij.; syrapi rhusados, 3ss.; ag. menth. pip., 3jss. M. ft. haust. om. mane vel bis die sumendus.

Jan. 6, 1848. Her mother writes word that the fulness of the breasts is much more marked; that the abdomen has distinctly increased in size, and that she considers herself to be in the fourth month of pregnancy. Her general health

is good, but she complains of occasional severe pain of the left side of abdomen, which extends across. *Rep. mist. ferri sulph. ex m.m.s. o.m.s.*

R. Lin. camphoræ co., 3jss.; tinct. opii, 3ss. M. ft. linimentum parti dolenti applicand.

R. Ext. lactucæ, ext. lupuli, camphoræ, aa. ʒj. M. ft. pil. xij. sumat ij. urgente, dolore et rep. post horas ij. p.r.n.

I was unable to make out satisfactorily either the exact cause or history of the severe attack of inflammation (I presume of uterus and vagina) from which she had suffered about a year before I saw her; it was attributed partly to cold, but to this we may fairly add the unhealthy, feeble condition of her system, and, from the contracted state of the parts, a considerable degree of irritation consequent on marriage. Moreover, the uterus itself had been in an unhealthy, irritable state for many years; the menses very irregular, partly from her feeble powers not always furnishing the due supply, and also, when secreted, being retained in the uterus by the contracted state of the cervical canal. To this circumstance must be attributed the fact of the uterine cavity being longer than the natural by nearly half an inch, as measured by the uterine sound, and also the great ease with which the catamenia appeared after dilating the os and canal of the cervix. The thick, bloody fluid which was seen oozing from the os uteri was probably some menstrual discharge which had been retained in the cavity of the organ.

It is under circumstances of uterine irritation like these that we see the tongue so invariably presenting a dry, rough appearance, from having peculiarly short-napped fur (if I may use such an expression), which I hold to be a valuable sign that considerable irritation is existing.

The cicatrized condition of the vagina, and the fringe of fibrinous exudations on the os uteri, marked the severity of the inflammatory attack from which she had suffered; and, as far as I could learn, she had given her medical attendant but a bad chance of treating it successfully by concealing most of her local symptoms through a feeling of false shame.

The permanency of the effects produced on the os and cervix by wearing a metallic plug or tent, are variable: in some cases the part remains dilated for some little time, and now and then appears to continue so; but in many, as in the present case, it contracts immediately after the removal of the tent, and quickly returns to its former condition. The case which I have given in my previous report is in this respect very similar. As the metallic tents were expelled each time that the catamenia came on, we may, I think, infer that the uterus possessed a fair amount of contractile power, and that, therefore, the obstruction to the discharge of the catamenia from the nearly closed condition of the canal must have been very considerable. The termination of the case in pregnancy is what I had scarcely hoped for—the general debility and haggard appearance, the long history of previous ill health, and the unfavourable state of the uterus for conception, prevented any expectations of such an event; but after removing this constant source of annoyance and irritation to the system by dividing the cervix, and thus effecting a permanent dilatation of its canal, the health began rapidly to improve; and this favourable state was probably still further promoted by a change of residence to another part of England.

REMARKS ON THE ALLEGED CASE OF DEATH FROM THE ACTION OF CHLOROFORM.

By J. Y. SIMPSON, M.D.

Professor of Midwifery in the University of Edinburgh.

In a paper on Chloroform, written in November last, and published in the December number of "The Monthly Journal of Medical Science," I stated my belief that "the power which we have with it of bringing down the pulse, &c., shows that, if exhibited in too strong a dose, and given uninterruptedly for too great a length of time, it

would doubtless produce serious consequences, and even death."—(P. 417.)

Knowing the very great extent to which chloroform has latterly been used, the immense supplies of it manufactured and sold, the many, many thousands of persons already submitted to its influence, and the want of caution with which its administration has sometimes been conducted, I have felt and repeatedly expressed surprise that no fatal disaster should have accompanied its exhibition.

At last an alleged fatal case of its employment has been reported as having occurred in the practice of Mr. Meggison, of Winlaton, Newcastle; and a coroner's jury has returned a verdict of "Died from congestion of the lungs, from the effects of chloroform."

The unfortunate patient certainly died when under the influence of chloroform; not, however, as I believe, from its effects, but from the effects of the means used to revive her.

I think this will be evident from a statement of a few of the particulars elicited at the inquest, and published in the *Lancet* of Saturday last, and from Mr. Meggison's own report of the case in the *Medical Times*.

The patient was a girl of fifteen, and the dose of chloroform given was not very large—"about a tea-spoonful." Apparently, in "about half a minute" after the inhalation was begun, the operation (the extraction of the nail and matrix of the great toe for onychia) was rapidly performed. She was at the moment not under so deep a degree of anaesthesia as we often see in surgical cases, for "her breathing was a little quickened, but not stertorous;" her pulse was "not altered in frequency;" and "when the incision was made she gave a struggle or jerk." "She kicked out," says Mr. Meggison, "and I, thinking the chloroform was not sufficiently potent, was proceeding to apply more to the handkerchief, when her lips, which had been previously of a good colour, became suddenly blanched, and she spluttered slightly at the mouth, as one in epilepsy. I threw down the handkerchief and gave her cold water, immediately followed by brandy. In a minute more she ceased to breathe." "I gave her some brandy, a little of which she swallowed with difficulty." (a) "She moaned (according to her father's evidence) after the nail was off; he (Mr. Meggison) afterwards put some brandy in her mouth, and she rattled in her throat."

From the above extracts, it evidently appears that the girl fell into a state of syncope (becoming suddenly blanched, &c.) at the time of operating. The syncope might result from the operation, or from the chloroform, or from both. I have seen in a few rare cases such a blanched state of the lips and features come on, under the use of very powerful and deep doses of chloroform, simulating syncope, and with the respiration temporarily suspended; but these symptoms always readily disappeared, and the patients speedily recovered, by simply removing the chloroformed napkin from the face, and letting them alone; and I most sincerely and conscientiously believe that such also would have been the result in this unfortunate instance, provided nothing more had been done. But, with the best of motives and intentions, water and brandy were poured into the girl's mouth. They were, of course, allowed to rest in and fill up the pharynx of the patient, as in her state of syncope and anaesthesia she was not in a condition to swallow them. The attempt at swallowing mentioned in the evidence was, I have no doubt, an attempt at breathing only, or of breathing combined with swallowing. But it was impossible for the patient, in her weak and torpid state, to inspire through a medium of water and brandy any more than it would have been possible to inspire if the whole head and face had been submerged in the same fluid. The liquid would be partially drawn into the larynx. "She rattled in the throat." "In a minute more she ceased to breathe."

(a) *Medical Times*, p. 317. Mr. Meggison's own report of the case.

In commenting on injuries of the head, Mr. Guthrie, when speaking of the treatment of concussion of the brain,—a state rendering the sufferer, like Mr. Meggison's patient, "senseless and motionless, and the countenance deadly pale,"—correctly observes, "It is improper to put strong drinks into his mouth, and, if he should be so far recovered as to make this attempt, they might possibly enter the larynx and destroy him." Would not the same result happen if the same treatment were applied to a person in a deep state of apoplexy, epilepsy, syncope, or narcotism?

The girl died, then, as I conceive, from the *nimidi cordi medicata*—choked or asphyxiated by the very means intended to give her life. And this view of the case is farther completely borne out by the pathological fact, that the appearances observed at the post-mortem inspection of her body were all exactly those produced by simple asphyxia.

For the principal morbid appearances were the following. I give them in an arranged and numerical order:—

1. *Heart and Blood*.—"The heart contained dark fluid blood in both its cavities; very little in the left."

2. *Lungs*.—"Not collapsed on opening the chest."

3. *Lungs Congested*.—"The external appearance of both lungs over the whole surface, but especially at the inferior portions, was that of organs in a very high state of congestion."

4. *Bronchi*.—"The pulmonary tissue was filled with bloody froth, which was also found in the interior of the bronchi mixed with mucus."

5. *Larynx and Epiglottis*.—"On examining the larynx and trachea, the epiglottis was found reddened at the summit, of a vermilion hue. The mucous membrane of the larynx was redder than natural, mottled with vascular patches. The sinuses of the larynx contained a good deal of dark mucus."

6. *Parenchymatous Abdominal Organs*.—"The liver, kidneys, and spleen were more congested than usual."

7. *Brain*.—"The brain, externally and internally, was more congested than usual."

These are all the special morbid appearances in the case, as officially reported to the coroner; and one and all of them are exactly the special morbid appearances found in the bodies of patients who have died of simple asphyxia. In proof of this I shall cite below in a footnote (and in the same arranged order for the sake of comparison) the morbid appearances characteristic of asphyxia, as given in a careful and elaborate article on the subject, by Dr. Carpenter, in "The Library of Medicine," vol. iii., pp. 221, 222.(a)

(a) *Morbid Appearances after "Simple Asphyxia rapidly induced."*—(Extracted from Dr. Tweedie's "Library of Medicine," vol. iii., p. 221.)

1. *Heart and Blood*.—"The accumulation of blood in the right side of the heart, and in the vessels connected with it, namely, the systemic veins and pulmonary artery, and the comparatively empty state of the left cavities, as well as of the pulmonary veins and systemic arteries, are the appearances most characteristic of asphyxia." "The blood is usually found fluid."

2. *Lungs not Collapsed*.—"The lungs are greatly distended, and expand so as to meet over the pericardium."

3. *Lungs Congested*.—"When exposed to view they present a dark brown, sometimes almost blackish, hue externally; but their parenchyma exhibits a redder tint when cut into. The engorgement is here in the arterial system, but it is occasioned by the accumulation of venous blood, of which large, dark, thick drops flow out when incisions are made in the substance, and slight pressure employed."

4. *Bronchi*.—"A mucous froth, rarely sanguinolent, covers the lining membranes of the larynx, trachea, and bronchi; the membrane

I have taken Dr. Carpenter's article as the one that has first come to hand. I might refer equally to Dr. Roget's "Essay on Asphyxia," in "The Cyclopaedia of Practical Medicine," for the same kind of proof.

The morbid appearances, I repeat, in Mr. Meggison's patient were precisely those seen to result from pure asphyxia. They were, on the other hand, different in some essential points from the morbid appearances seen on the bodies of animals killed by the inhalation of chloroform. About two months ago I witnessed a series of experiments made by a committee of the Medico-Chirurgical Society of Edinburgh on several animals poisoned with fatal doses of chloroform. In Mr. Meggison's patient, the blood found in the heart was "dark" and "fluid." On the contrary, in the fatal experiments to which I allude, "firm coagula of blood in the heart were found in every case where chloroform was inhaled." (a) In some the lungs were congested; in others, quite healthy; in none did we find the brain congested as in Mr. Meggison's patient.

Besides, the dose of chloroform exhibited by Mr. Meggison was so small as to render it exceedingly improbable that it could have been the essential cause of the death of the patient.

Altogether, then, while it thus appears highly improbable that the fatal result in Mr. Meggison's patient could be the consequence of the use of chloroform, and entirely due to it, the conditions in which the patient was placed were such as would almost inevitably have produced death in any person by asphyxia. The morbid appearances were not those resulting from chloroform; they were those resulting from asphyxia; and, as I have already stated, the verdict should not have been "Died from the effects of chloroform," but "Died from the effects of means used to restore her from the state of anaesthesia."

In making this remark, and coming to this self-evident conclusion, I have no desire to throw any—the very slightest—blame upon Mr. Meggison. Nothing could be possibly further from my wishes and intention. On the contrary, I take very great blame to myself for not publishing sooner, as I intended, a suggestion to my professional brethren to warn them against this source of danger in the treatment of chloroformed or apathized patients. To point to it as I have now done will, however, I hope, be sufficient; and I will merely add that I sincerely believe, from all that I have seen, that, in such a case as Mr. Meggison's patient, nothing whatever requires to be done but the removal of the handkerchief or inhaler, and the free admission of air to the face of the patient. If aught else is to be attempted, it should amount to sprinkling cold water on the face, compressing the chest, or otherwise exciting respiratory acts; and, if still further measures are required, then doubtless artificial respiration should be the measure employed.

Edinburgh, Feb. 7.

itself is sometimes deepened in colour."—"Appearances after Asphyxia from Submersion," p. 244.)

5. *Larynx and Epiglottis*.—"Venous congestion is usually well marked in the root of the tongue, which often appears as if injected. It extends also to the mucous membrane of the larynx and epiglottis, of the trachea and bronchi, which is deeply marked by vascular turgescence."

6. *Parenchymatous Abdominal Organs*.—"The venous congestion is 'very perceptible in all organs that are largely supplied with blood. Thus the liver and spleen are in a state of engorgement.'"

7. *Brain*.—"The veins and sinuses of the head, of course, partake of the general venous congestion; and in well-marked cases an unusual number of red points is seen on slicing the brain."

(a) See Dr. Bennett's report on the subject in "The Monthly Journal of Medical Science" for Jan., 1848, p. 539.

A REPORT ON THE CAUSES, CHARACTER, AND TREATMENT OF SPASMODIC CHOLERA AS IT OCCURRED IN HER MAJESTY'S 86TH REGIMENT, AT KURRACHEE, IN JUNE, 1846.

By ALEXANDER THOM, Esq.,

Surgeon of the Regiment.

Communicated to the Medical Times from the Army Medical Board.

General Remarks.—It often happens that sudden calamities or harrowing scenes pass so rapidly as not to leave on the minds of those engaged in them that undefined horror and awe which is associated with the recollection of them, when lapse of time has allowed the thoughts to dwell on the minutest details. To revert to, and attempt to describe, that terrible death-blast in the form of cholera, which has just swept over our unfortunate corps with almost unexampled fury, is even a more painful task than to relate the almost hopeless efforts to arrest or turn aside its overwhelming force, when moving amidst its ravages, and trying to drag its victims back to life. There is really something so appalling in this retrospect of a few days' pestilence, that the whole appears almost as a dream, and renders it difficult to realize its truth.

Sentiment is generally banished from medical reports, and very properly so; but there are rare and exceptional occasions when it may be pardoned, provided it does not interfere with action, but is confined to the closet, where, on the exercise of memory on past events, the natural feelings will assert their sway. Nor is it necessary that the heart of the medical man should be closed against all sympathy with the sufferings of his fellow-creatures, particularly of those who are consigned to his charge, and with whom he is linked by ties not to be despised.

I have witnessed diseases of a severe and fatal kind, and cholera itself in an apparently grave form; but I never could have anticipated, even in India, its appearance in so appalling a shape as that in which it was recently developed in our regiment at Kurrachee. It almost literally burst forth like a thunderclap, followed by a lethiferous blast, proving almost instantaneously fatal; and, unhappily, fell in its full force on the 86th Regiment. In general, when other diseases of a malignant kind assail a community, they gradually reach a certain acme, and from thence decrease at the same rate, especially in contagious or infectious maladies; and even in endemics and epidemics this is the case in a greater or less degree. In the case before us, however, the pestilence showed itself in the space of a few hours with its most concentrative violence and extensive spread; and in the course of two days its virulence began to subside in a gradual manner till it finally ceased, or assumed a type less terrible and irresistible than spasmodic cholera. Its progress is well traced in the following table of daily admissions and deaths, and illustrates the fact to which I refer:—

A. *Return of Daily Admissions and Deaths from Cholera in her Majesty's 86th Regiment from June 11 to July 20, 1846.*

Dates.	Admissions.	Deaths.	Dates.	Admissions.	Deaths.
June 11..	1	1	June 25..	390	223
12..	2	0	26..	2	2
13..	2	0	27..	0	2
14..	1	1	28..	0	2
15..	47	8	29..	0	1
16..	105	70	30..	2	1
17..	104	53	31..	5	2
18..	49	32	July 1..	1	1
19..	23	18	2..	4	1
20..	25	16	3..	1	1
21..	20	11	4..	1	1
22..	5	5	5..	3	1
23..	3	3	6..	1	0
24..	3	5	7..		
	390	223	Total..	410	233

The daily returns were made up from six A.M. on one day to that of the next.

A case or two had occurred a few days before the great outbreak, but as they were not unusually severe, and occasional instances of the disease had been known in the cantonment for several months, we did not apprehend a catastrophe such as followed.

Outbreak.—On Sunday, June 14, a hot, muggy, and oppressive day, with little wind, there were only two bad cases admitted in the morning. At twelve o'clock, however, others of a most virulent kind began to show themselves simultaneously in every company of the regiment, and at every part of the camp, so that by four o'clock sixteen had been brought into hospital; and, the disease continuing to spread with startling rapidity, I immediately went to the military authorities to have the camp moved next morning.

Change of Camp.—It was arranged by the brigadier to send the regiment to a cool open point near the sea, only a mile or so from the old encampment, but the governor ordered it out to Ghizra Bunder, four miles off. Accordingly this was carried into execution on the following morning.

Hospital Accommodation.—When the cholera broke out we had about 100 old cases of sick, eighty of which were in two large hospital wards given up to us by the 60th Rifles, on our return from field service; and the remainder were in tents. We were thus without any spare room, even for a very moderate increase of sickness, and still less so for the accumulating masses of men brought in as fast as the dhoolies could go for them, and laid on the floors of the hospital between the rows of beds belonging to the other patients.

Scene in Hospital.—As the night closed, in a scene presented itself within the walls of our hospital such as few minds can conceive, or pens depict. The floors were literally strewn with the livid bodies of men labouring under the pangs of premature dissolution, surrounded by crowds of attendants trying to alleviate their hopeless sufferings. Many were brought in with the cold and clammy damp of death, as if sudden obstruction of every vital function had taken place, and the fountain of life had been arrested by an inviolable but instantaneous shock. For these all human aid was in vain. Others were struggling with all the violence of strong men against the agony produced by the spasmodic action of the muscles of the body, and their yells and cries, commingling in fearful discordance with the subdued groans and gaspings of those nearer to the closing scene, were truly heartrending. It was, indeed, a sight never to be forgotten, to behold the powerful frames of the finest men of a fine corps, who had that morning been in apparent good health, and most of them on the evening parade, as if at once stricken down and striving with the last efforts of gigantic strength to resist a death-cry that would not be refused.

Effect on the Old Cases of Sick.—I need hardly say what effect such a scene as this must have had when suddenly placed before the old cases of sick, who had already been, by long confinement and severe disease, depressed in body and mind. The result might be expected: about twenty of them rapidly fell victims to the fell scourge, thus unexpectedly brought before their eyes in its most hideous form. Fear was strongly depicted in the faces of some, and these almost immediately sunk under the shock; often, in half an hour after seizure, cold sweats and collapse placed them beyond the power of medicine. It was not the least distressing part of the affair that these poor fellows could not immediately be removed from a place so full of horrors, and that medical officers and attendants were so incessantly occupied with the continued stream of fresh cases of cholera which poured in as to leave little time to watch the first signs of the disease among the old patients.

Arrangements for the Sick.—The suddenness and extent of the blow, its occurrence at night, and on a day when all the public offices and stores were closed, and their attendants absent,

all united to heighten our difficulties. It was midnight before tents could be procured and pitched, to remove the old sick cases into, so as to separate them from those labouring under cholera, to whom the two hospital wards were wholly given up. Again, it was found necessary, at break of day, to move the old patients into a barrack-room cleared out by her Majesty's 60th Rifles, in order that the tents, which they had only occupied for a few hours, might be struck and sent out to form a field hospital. All this took time and trouble, and, by the morning of the 15th, the whole hospital servants were exhausted and almost unfit for work; yet rest could not be allowed, as there were none to relieve them, until sickness speedily deprived us of the services of most of them.

Spread of the Disease.—On the 15th the disease was, if possible, spreading more rapidly and with greater virulence than on the previous day, and, from the line of march and new encampment, cases were brought in every ten minutes. By twelve o'clock, or barely twenty-four hours after its first appearance, the old hospital was filled with eighty or ninety cases. After this it became necessary to accommodate the fresh cases in the field hospital at the camp, and in twenty-four hours more this was also filled. After the 16th June, however, the number of daily admissions began to decrease rapidly, but the places of those who continued to fall victims to the disease were too often occupied by men who had lately been their attendants. Indeed, it not unfrequently happened that the soldier attendant was found lying in the agonies of the disease, with which he had suddenly been seized, beside the pallet of his dying charge and comrade. How many painful instances of this kind do we all recall, where a good and worthy man was left in health, actively and assiduously tending his fellow-soldier, and on our returning to the same part of the hospital, in a quarter of an hour afterwards, he was found to be another victim to the pestilence which raged on every side!

Hospital Attendants.—The occurrence of such an enormous number of cases of a fatal malady within so short a space of time, and each individual requiring at least one special attendant, wholly precluded the possibility of procuring assistance of this nature from the ordinary sources. The consequence was that we were under the painful necessity of employing the soldiers, no doubt already predisposed to the disease, in this fatiguing and harrowing duty; and well and zealously did they perform it. But all this unquestionably increased the evil, for, at a moment when rest and quiet were especially requisite to guard against the exciting cause of so general and deadly a complaint, it was found that nearly two hundred men were constantly employed, night and day, on a duty at once harassing to the body and distressing to the mind and feelings, and tending to develop the latent seeds of cholera.

But to enter into a detail of all the conflicting difficulties, forced arrangements, and necessary substitution of the lesser of two evils, would occupy more space and time than I can well afford, and perhaps, after all, would be to little purpose. But a glimpse at our situation, such as I have given, seems to me to be in some degree required, before I proceed to the history of the causes, pathology, and treatment of one of the most terrible plagues that has for centuries assailed the human race.

Atmospheric Origin of Cholera.—Before adducing arguments arising out of the observations lately made on cholera, I may here briefly state the nature of the opinions which I venture to advance on its causes. It really appears, both by its previous history, and especially by the facts connected with its spread and outbreak at Kurachee, in every corps, native or European, as well as her Majesty's 86th Regiment, that its origin is purely of an atmospheric nature. By a combination of atmospheric agencies, peculiar to certain seasons in the peninsula of India, the human system is subjected to changes engendering a choleric diathesis, which, by great intensity

of the remote causes, may run into the disease in its worst form; but that this state of the system generally exists in a more modified degree that merely predisposes the constitution to an attack, and may, by one set of collateral circumstances, be exasperated or hurried into action, or, by another, be corrected or even wholly removed, so that, if the disease does break out, it will be in a comparatively mild manner, or perhaps appear under the form of another ailment.

When large bodies of men are exposed to the same causes of epidemic disease, if it is ascertained that one set of persons fall victims to it by hundreds, while another have comparative immunity from its ravages, it naturally invites us to inquire into the subordinate agencies apparently producing those results, and giving to causes, common to all, such different effects, more especially if it is shown that both have exhibited, in a more or less degree, the signs of that diathesis to which I have alluded. By such a course we may obtain both positive and negative information regarding cholera. This has been the case in a signal degree at Kurachee; and, if it does not throw much light on the pathology of the disease, it promises to elucidate those circumstances which tend to control or favour its development, and from hence derive some prophylactic knowledge, perhaps quite as useful, in a practical point of view, as the medicinal treatment based on the alleged nature of the morbid miasm said to produce it.

The Causes of a Choleric Diathesis.—The atmospheric causes to which I refer are, high temperature, associated with a degree of humidity of the atmosphere approaching to saturation, assisted by a decrease in the pressure of the air and diminished proportion of oxygen, such as belongs to the hot season in India, which act on the human frame with greater intensity when they suddenly succeed a dry and opposite condition of the atmosphere. In addition to these general and periodical agents of disease we must enumerate an absence of aërial currents or calms, or the light winds being impeded or interrupted by the geographical features of the country peculiar to certain localities, such as mountains, forests, dense vegetation, or the ill-arranged habitations of man—narrow streets, high walls, and ill-ventilated apartments. All these causes seem to us to be fully capable of producing that state of the system which I have designated a choleric diathesis in a more or less prominent degree, according to their extent and their separate or combined action, and no doubt greatly influenced by the mode of living and habits of individuals.

The Latent Disease.—It may be reasoned from analogy, that when once this diathesis is generated in the system it may remain latent for a long period, and perhaps only break out after the primary causes had ceased to be very remarkable. We know well that the body, when once predisposed to other forms of disease peculiar to certain seasons and localities, continues to be liable to a first attack, or to relapses, and even for a long time after it has been removed from the obnoxious climate. Hence we meet with occasional cases of cholera at all seasons in India, and at times when the more important causes which have been assigned are not very perceptible, while the general prevalence of this malady will be found to be simultaneous with, or soon after, the existence of these causes in a conspicuous degree.

Analogy with other Diseases.—It is really difficult to account for the sympathy which exists in many constitutions to have attacks of some forms of disease after the supposed causes have ceased, and this even at the distance of many years; but we can appreciate the fact. A striking example of this at once presents itself in the proneness of attacks of the intermittent or remittent fever of the tropics which is experienced after the individual has been for years in England, and at places where the alleged sources of such complaints are unknown; and there is a much closer connection between these and cholera than I can at present enter into.

At Mauritius, where intermittent fever is never met with among its inhabitants, I have seen the Cooly emigrants from India suffer from ague in the autumn with all the severity and characteristic symptoms of the banks of the Ganges; this continued to recur for several years, with this peculiarity, however, that at each successive time it became of a milder nature, till it almost ceased, except in a few persons labouring under organic disease. In the same island an officer of the commissariat department, who had been at Sierra Leone eight or ten years before, became my patient with the remittent fever of the African coast in all its genuine character. Scurvy, arthritis, rheumatism, and all diseases which are preceded by a specific diathesis, have the same tendency to recur from slight causes, after they have been once established.

Casual Cases of Cholera all the Year round.—Hence, as in the south of Europe where the periodical fevers prevail with violence at certain seasons, they are also occasionally met with all the year round, so we must be prepared to expect casual cases of cholera at all times of the year in India. But, as I have already said, it will be found to prevail with greater intensity and extensive diffusion at the periods and places where, after dry winds, there is high temperature and the air is charged with vapour, and the winds weak or checked by natural obstacles.

Certain Seasons favourable to its Development.—Thus it is almost universally found that the season or state of the atmosphere which is most favourable to the development of cholera is that which precedes the approach of, or ushers in, the S.W. monsoon, all over India and the neighbouring parts of Southern Asia; in fact, that after the dry N.E. winds of the cold season, followed by the great heats of the early months of summer, the human frame becomes susceptible of a peculiar change incidental to a more or less rapid succession of the estival or moist winds and heavy rains, during which a choleric diathesis is established, and indicated by anorexia, gastric irritation, and tendency to diarrhoea, &c.; and spasmodic cholera will be displayed in a few cases, perhaps, or more generally. As the wet monsoon sets in more or less early, or rapid, in different seasons, and varies greatly in strength as well as in the deposition of vapour over the diversified regions of India, so also must its effects on the human body be equally subject to modifications, even without reference to the concomitant circumstances which influence the progress of all diseases. It would seem, however, that a combination of causes is necessary to develop cholera to a formidable degree, and that neither heat nor humidity is separately capable of producing this disease; and perhaps it is only after the system has been subject to a comparatively cool and dry atmosphere, that their united action leads to such deleterious results. The more rapid this transition is, the more likely is the system to suffer from it; and, although the inherent power of the body to adapt itself to changes of climate is very great, yet this is not always accomplished without danger to some of the functions; and in persons weakened by a residence in India or Scinde, previous fatigues or diseases, intemperate habits, &c., the effects must be still more severely felt.

Peculiarities of the Climate of India.—The climate of India is, and from its geographical position must be, different in many important points from any other portion of the globe. For six months of the year it is subject to the cool and desiccating influence of a current of atmosphere which passes over one continued continent that extends to the very pole, and regions of eternal ice within the arctic circle. For the rest of the year the wind blows from the very opposite point of the compass over an uninterrupted surface of ocean, and, sweeping over the heated water about the equator, it reaches the coasts of India laden with vapour almost to the point of deposition. As these two conditions of the climate produce very different effects on man, and the transition from the former to the latter

appears to expose him to disease of many kinds, but all allied to that under consideration, it may be well to stop and inquire into their more marked peculiarities.

Cool and Dry Monsoon.—During the N.E. monsoon, which prevails from October or November to March or April, the air is cool and comparatively free from moisture. In this country, about January or February, the dew-point is generally from 20° to 30° below the temperature of the shade, and the barometer stands half an inch higher than in the hot months, thus showing an increased density of the atmosphere.

Effects on the System.—Every one almost knows, theoretically or practically, the effects of such a climate. The dryness of the air facilitates evaporation, so that, by the increased activity of the cutaneous and bronchial secretions, the body is relieved of the superabundant fluid, and its comparative coolness (50° or 60°, instead of 90° or 100°) gives tone to the system and braces the nerves. It is said to be pure, because it is dry; and, as we know that air contains more oxygen in a given volume at a low than a high temperature, it is more exhilarating and fitter for the purpose of respiration. This is also increased by the absence of moisture in the atmosphere, which displaces the particles of air according to the degree of its elasticity. The result is, that in healthy subjects, free from organic disease, the dry season of the year is productive of cheerful feelings, increased strength, and activity.

Hot Winds.—No sooner has the sun recrossed from the southern into the northern hemisphere, and approaches the tropic of Cancer, than a series of interesting changes in the climate of India begin to be experienced. At first the peninsula and central regions begin to acquire a high temperature and give rise to new movements of the air, called "hot winds," severely felt at certain places near the deserts; but, as these currents are dry, they are not found, either in this or any other country, to be unhealthy, that is, in a remarkable degree, and, although productive of certain febrile and some grave cerebral affections, yet they are free from other and still more severe and numerous diseases peculiar to an opposite state of the air.

Hot and Wet Monsoon.—The continued action of the solar rays quickly raises the mean temperature of Southern Asia far above that of the tepid ocean between it and the equator, and, by the rarefaction and ascent of air over it, currents of the denser stratum of air at the surface are gradually established from the cooler locality or ocean, to the warmer or sandy deserts and plains of Hindostan. Thus we have the south-west monsoon following hot and dry winds. Its influence is first experienced in a partial degree along the western coasts of the peninsula in the form of a sea-breeze setting in with the heat of the day; but its character as a monsoon cannot be determined till the temperature of the land at night, as well as day, exceeds that of the sea, and the indraught to land is continuous, with more or less strength and regularity. This is said to take place earlier at the southern parts of India than in the northern by "about fifteen or twenty days." Near Cape Comorin it begins about the 20th or 28th of May, at Bombay it is seldom established till the middle of June, and in Scinde the end of that month. Now, it is during these months that cholera is generally found to break out with most violence along the coast.

Chemical Change in the Atmosphere from Heat and Vapour.—As the sea-winds set in, the air suddenly becomes loaded with vapour, and the dew-point rises; at the same time the barometer indicates a diminished pressure, so universally noticed and so regular in the results, that it must be considered as a general law. The result is that a given bulk of air becomes specifically lighter, or rarified, and a certain portion of it is displaced by aqueous vapour; thus, by the late Professor Daniell's tables, it appears that air saturated with vapour, at 32°, has a

Specific gravity of	0.99737
At 90°	89260

Consequently there is more than one-ninth less of atmosphere inhaled at each respiration by the human subject in the latter condition of the weather. But as even the atmosphere at 90°, when of the specific gravity of 0.8926, if saturated with vapour, contains 0.04766 of this last body which does not furnish oxygen to the blood, it follows that the volume of air inhaled by the lungs has about one-sixth less oxygen than at 32°.

Actual Case in Scinde.—Now, it may be remarked that these are extremes; but in Scinde we had the thermometer at 38° in January, and as high as 106° in summer, so that the difference is not of much importance in generalizing. It may be also objected that the air is seldom charged to saturation with aqueous vapour; which is also true; but, during the S.W. monsoon and a period preceding, it was so nearly so, compared to the opposite season, that the absolute quantity of vapour which it contained at Kurrachee during the prevalence of cholera was very little below that of saturation, the dew-point being 83° at night and 86° in the day.

Fewer Respirations per Minute in Hot Weather than Cold.—There is another circumstance not to be overlooked, which increases the effects of a hot and humid air in the process of respiration; it is, that in hot weather the number of inspirations are diminished, so that at 90° it is 1.48 per minute less than at 30°; and the quantity of carbonic acid exhaled, and oxygen inhaled, are decreased in a similar ratio.

Effects of a Deficiency of Oxygen in the Air.—Thus we find that while the soldier in India takes no exercise and eats the same ration, and introduces the same quantity of carbonized and azotized matter into his system, during the hot as in the cold season, the nature of the climate at the former period is such as to interfere with an unlimited and sufficient elimination of these matters from the system, owing to the decreased quantity of oxygen which it receives. The consequence is, that the due and healthy equilibrium between the food consumed and the sources of its oxidation is lost, and carbonaceous matters are found to predominate, while the formation of fibrine is diminished. By a wise arrangement of Providence, the increased action of the liver and skin has a tendency to moderate this; but, failing these, diarrhoeal, dysenteric, and cholera discharges from the mucous membrane of the intestines are the diseased methods which seem to be employed to relieve the system of carbonaceous matter. Hence it is found that in all hot climates carbon exists in larger proportion in the blood than in cold ones, and is developed in a tendency to diseases of the abdominal viscera.

Increased Importance of the Cutaneous Function in Hot Seasons.—We are led to another and no less remarkable effect of the S.W. monsoon on the human constitution, arising out of its extreme humidity. The skin, owing to the diminished action of the kidneys, is called on to perform new, increased, and important functions, viz., to relieve the system of azotized saline matters eliminated from the blood, to remove the superabundant fluid introduced into it by increased thirst, and to keep the temperature of the body in a natural state. These salutary processes are accomplished by a profuse and easy secretion from the sudoriferous and sebaceous glands, which is really amazing in the hotter regions of the earth. While the skin is thus conveying off the refuse of nutrition, it is said to imbibe additional oxygen; and the constant evaporation that goes on is the means by which the accumulation of caloric in the body is controlled, rendering the temperature of the body the same in India as in a winter in Siberia. It is hardly possible to conceive the body in any degree of health unless this channel, by which Nature relieves herself, is constantly open and in operation of the most active kind; and fact proves it to be so.

Nervous Agency of Humid Air on the Skin.—The cutaneous function may be carried on in

full vigour, and perspiration loaded with effete matter be poured out on the surface in large quantities, but it is equally necessary that the state of the atmosphere should be favourable to evaporation to enable the system to get rid of this excretion. In a brisk breeze, a well-ventilated situation, and dry air, this goes on rapidly, and is conducive to the highest degree of health, even if the mean temperature of the weather be very high. On the other hand, when the air is charged with vapour to within a few degrees of saturation, it will not receive more; evaporation is almost at a stand, and, as far as the human body is concerned, the secretion of the skin is checked, and rests on the body, and produces that oppressive, muggy feeling, as if the clothes were sticking to the body, and sense of languor, which is experienced on such occasions. Now, this is exactly the state of the air and human body at the setting in, and during the continuance of, the S.W. monsoon.

Especially in Hot Seasons or Climates.—The effects of winds holding aqueous vapour in solution, even in a cold climate or season, is most injurious to the health of man, of animals, and even of certain vegetables; but how much more so must it be in hot climates, where the removal of fluid by evaporation from the skin is the only means which exists of keeping the body at a low and natural temperature?

Congestive Effects of Non-evaporating Air.—Congestion of the whole vascular system, leading to derangement of every function of life, aggravated by the nervous depression induced by the simple effect of great heat, must be expected to exist, in a more or less degree, in almost every individual who may be exposed to such causes.

Stagnant, Hot, and Moist Atmosphere.—A hot and humid atmosphere, if kept in constant circulation by a strong wind, may not always produce its full effect in a hot country; for, although it should be near the point of saturation, and evaporation is very slow and limited, yet, by the rapid change of the layers next the skin, the removal of perspiration is greatly accelerated. But a still and stagnant state of such air will have an opposite effect, and give rise to the most serious maladies originating in congestion, such as cholera. This has been remarkably the case at Kurrachee. In 1846 a strong, cool, and cloudy, although humid, monsoon unceasingly prevailed all summer, while in 1846 the heat was much greater, the wind light and unsettled, often marked by calms of two or three days; and in such a condition of the atmosphere did cholera break out.

The Causes vary with the Seasons.—These general causes of cholera are, of course, subject to diversity in regard to the time and intensity of their prevalence, as the seasons of India are liable to vary in common with every other climate in the world. The year may be unusually hot or cool, the wet monsoon early or late in setting in, either generally or at particular localities or regions; for instance, at Kurrachee it is not unusual to have the sea-breezes, and, of course, moist air, prevailing for a few weeks in February or March. But it will be no difficult matter to show that, as soon as the dry N.E. winds fail, or give way to hot easterly currents of air, and the indication of the sea-winds are perceived, then cholera may be looked for. It will be found to prevail with greater violence and regularity of recurrence at stations subject to heat and humidity, where the S.W. monsoon is first experienced, influenced by the features of the country, or buildings, tending to arrest ventilation. The condition of the air near the coast is less rapidly extended to the north and east, or interior of Asia, where it is at all times less steadily maintained; hence cholera seldom visits the countries most removed from the sea with as much severity or regularity as those of the coast; but certain seasons may occasionally favour its development, particularly near rivers or flat moist tracts. It would also appear that this epidemic shows itself annually much earlier at the Madras presidency stations than in Bombay or Bengal. Indeed, the central part of the peninsula of India, from its nearness to the equator, its mean higher annual tempera-

ture than the rest of India, and the earlier and more constant recurrence of the causes which give rise to sea-winds, is much more liable to have cholera at all seasons than in Scinde or Upper Bengal.

Usual Track Followed by Cholera.—The spread of cholera may generally be traced from the southern parts of the Indian territories, and from the coast, towards the interior. Thus, long before its visit to Kurrachee, we heard of its appearance in the Madras presidency, and subsequently at Poonah, Bombay, and Ahmedabad, Deesa, and finally arriving by the coastward to Scinde, where it first broke out at the seacoast, and from thence gradually extended upwards to Hyderabad and Sehwan, where its further progress appears to have been stopped, as it never reached Sukkur or Upper Scinde. Now, it is a curious fact that the influence of the sea-breeze is seldom felt higher than Sehwan, and I can well remember, in descending the Indus in April, that we did not meet this till near Hyderabad, after which we encountered a westerly wind of great strength and steadiness, as far as Tutta, where cholera often prevails. The effects of this wind on our men, cooped up in steamers, and coming down from the dry air of Upper Scinde, was by no means unlike mild attacks of cholera, and, on board one of the vessels, the sudden appearance of many cases of diarrhoea in one night led them to apprehend an outbreak of the disease in a grave form. Had our men been long exposed to this, I have no doubt such would have been the case.

Similar Cases of Cholera occasionally occur in Europe.—It may be objected that the causes which I have assigned to be those capable of producing the cholera, or choleric diathesis, are not applicable to its appearance in the northern parts of Europe and Asia, and other parts of the world. To answer this would embrace a mass of details too comprehensive for the present paper; but I may briefly say that it is easy to show, in general terms, that such causes may occasionally be developed wherever this scourge has gone to. The seasons, it is true, are rare, and the combination of causes which I essay to describe cannot often occur, but they may do so at occasional intervals, just as much as we see extraordinary years of heat, drought, or rain, producing famine and pestilence, at the lapse of centuries perhaps; and it occasionally happens that there is a succession of such phenomena for two or three seasons.

Summer Heat over Europe.—It is a well-remembered fact, that the summer (if not summers) preceding the visitation of cholera in Europe was exceedingly hot all over the northern hemisphere. This very year the heat in England and on the Continent has been equal to many parts of India. By the *Medical Gazette* I see that it ranged as high as 90° and 93° in the beginning of June; actually hotter by several degrees than it was at this place at the same time. Nor has the heat been of a brief continuance, for if not often above 90° it has been very little below it, up to the very latest accounts (the end of July) which we have. The result is, that bowel complaints of a suspicious nature, called English cholera, have given rise to great anxiety in London, and a board has been formed to watch the progress of the sickness.

Now, I should not be surprised to learn that, with the setting in of the rain and humid or S.W. winds, cholera in a severe form was to break out.

If, then, such is occasionally the case in England, even with its insular position and climate, we may readily infer that a similar state of the weather has prevailed all over Europe. At Paris we know this is the case. Now, this high temperature is not only one of the predisposing causes of cholera, or bowel complaints in a less aggravated form, but, by its effects on the land of Central Europe or Asia, it will ultimately bring into action sea-winds or humid strata of air, the effects of which constitute the second, and most formidable, cause of that peculiar diathesis in the human system, which I have termed "choleric."

General Causes of Cholera in Asia.—It is ascertained, as far as our present knowledge goes, that over the northern and central parts of the Asiatic and European continent, the prevailing winds during the whole year are north-easterly, and in the winter season these extend to the very ocean near the line. Now, the universal laws of nature, to which we have adverted, in reference to the periodical winds of Hindostan, are equally predominant over the vast extent of land under consideration; and at certain seasons, after the greatest heats are established, the sea-winds, loaded with moisture from the Indian Ocean and Arabian and Persian seas, are diverted towards the land of Asia, while those of the Mediterranean and Black seas, and North Atlantic, blow towards Central Europe. Such is, unquestionably, the general course of the winds; but these must, from the natural configuration of the surfaces of the land and water, or from accidental circumstances peculiar to certain seasons and regions, be liable to great variations in their direction, and irregularity in strength.

Regions Visited by Cholera.—These remarks are made in general to explain the peculiar climate of those tracts of inhabited land over which cholera has usually travelled: for Afghanistan, Persia, Turkey, Southern Russia, and Central Europe form a chain of countries which are exposed to alternations from cold and dry to hot and moist currents of wind, resembling those of the Indian peninsula, but in a modified degree, except in extraordinary hot years, when the similarity will be perfect; and it is by this route that cholera has usually found its way from the N.W. of India to Europe.

Cholera not a New Pestilence.—I cannot now quote authorities, but I think it will be an easy task to show that many of the great recorded plagues, especially those called the "black death" and "sweating sickness,"—*mort du chien*, were true cholera, or modifications of it; that these so-called plagues have chiefly visited the kingdoms of Persia, Asia Minor, and Europe, or those regions most likely to be influenced by the atmospheric phenomena to which I have devoted so much attention. Under the term diarrhoeas and fluxes, many very fatal diseases have prevailed, and were most likely the same as the modern cholera. Dr. Sydenham gives an account of the English cholera so closely resembling that which prevails in India, and has lately been called *Asiatic* in Europe, that there can be no doubt of their identity. In short, the disease is traceable to the most remote periods of time, although now better known and described; and with the recurrence, at longer or shorter intervals, of unusually hot and humid seasons, we must expect to have this epidemic in some form or another.

(To be continued.)

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

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

(Continued from page 324.)

CLASS II.

DIVISION II. Thoracic Derangement; Counitance Anxiety.

- From Laryngitis.
- „ Tracheitis.
- „ Pleuritis.
- „ Empyema.
- „ Spasm of the diaphragm.
- „ Pleurodynia.

Laryngitis.—This disease stands foremost in the above group, for many reasons. The chief one is on account of its formidable character and destructive issue. I cannot suppose that much time need be occupied in pointing out the striking features of this malady. The countenance, and the condition of the respiration through the larynx, will be sufficient guides to the detection of laryngitis when it is once established. There is a sneering dilatation of the nostrils, and a retraction of the angles of the

mouth. Distress, anxiety, and suffering; an occasional "fighting" for breath; a pale, livid lip; a glossy cornea; and a fixed eyeball; with some faint touches of lividity over the cheeks, usually portray the features of the disease in its acute form. If the patient talks it is in a subdued tone, or in a half whisper; the chordæ vocales cannot vibrate from intumescence of their mucous surfaces. If he attempts to swallow even his own saliva, or any liquid, the swollen and stiffened epiglottis no longer perfectly does its valve-like office, but a sense of instant suffocation follows the effort to drink, in consequence of the fluid finding its way over the epiglottis into the ventricles of the larynx. The body of the larynx externally is tender, especially over the circo-thyroidean ligament, and where the minuter portions of the vocal organs are situated. The ear applied to the chest detects a wide difference between the efforts of inspiration and the small amount of air which actually passes into the lungs; and the stethoscope, gently laid over the inflamed organ, informs the ear that air passes through the larynx in a small or narrowed chink, by the harsh sound which its passage over this organ produces. (a)

When this disease is fully recognised, the next step to be taken is necessarily its treatment; and here I must allude to the judicious practice of Dr. Seth Thompson, who has himself been the subject of this fearful malady, and therefore his authority is of additional weight.

A female, aged twenty, stout, and well formed, was lately in the medical wards with this disease, and under this gentleman's care. The above physiognomical characters were strikingly delineated. Her throat was covered with leeches repeatedly; Dr. Thompson ordered her to take half a grain of antim. pot. tart. every half hour for six hours, after which it was given at longer intervals, so as to keep up a constant nausea upon the stomach. But another valuable remedy in this stage of the disease was also ordered; it consisted in the application of a large, soft, linseed poultice to the whole of the throat, and a still larger piece of oil-silk over the poultice, so as to cover its external surface, and prevent it from becoming dry and cold; this was renewed every three or four hours. Under such treatment the girl rapidly improved; but the subsequent remedy consisted in the exhibition of calomel so as to affect slightly the mouth, in order to remove the thickening around the larynx and its vocal chords, &c. She left the hospital quite well at the expiration of three weeks.

But the origin of this disease is often found to have a direct constitutional cause, and to be only the result of some syphilitic ulceration slowly progressing in the ventricles, or else on the edges of the larynx. The following instance, under the skilful treatment of Mr. Arnott, where the operation of laryngotomy was resorted to, will show the insidious nature of the disease, and its pathological character.

James Stanbridge, aged forty-five, admitted March 10 into the surgeon's ward, with fistulous opening in the urethra, and stricture. Five days after his admission he complained of sore throat, and shortly afterwards he had difficulty in swallowing, the voice became feeble, and he had some distress in breathing. Such was the man's account to me of his symptoms in their origin, when I first was requested to see him by Mr. Arnott on the 19th. The state of his respiratory system is thus noted down:—Countenance anxious, distressed, and pale; lips rather livid; respirations forty, attended with a gurgling but not a croupy noise; nearly total inability to swallow fluids, from the sense of threatening

suffocation; the fluids "lodge," he describes it, about the bag of the pharynx, but in reality they do not lodge there at all; the anatomical explanation already referred to informs us that it is simply the spasm of the pharynx, consequent upon the stiffened and immoveable action of the diseased epiglottis. On applying the stethoscope over the larynx, air is heard to pass this organ with a whistling noise. Pain is referred by him to the larynx, especially on its left side. No pain on pressing the alæ of the thyroid cartilage, but there is a great sense of tightness across the lower part of the sternum. (a) On auscultation, the lungs were feebly inflated in every part, attended with sibilus here and there.

Diagnosis.—"Inflation and suppuration going on between the pharynx and larynx; lungs healthy." Mr. Arnott's diagnosis, however, extended beyond that which I had made, and it was that there existed syphilitic ulceration within the larynx itself.

He was ordered to have twelve leeches around the larynx, hydr. c. cret. gr. v. 6tis, and to inhale a weak solution of pyroligneous acid in hot water. On the following day he rambled somewhat; however, he declared himself better, though it was evident that he was in nowise improved. On the 21st, at five A.M., I was called up to see him, his breathing having become worse; his countenance was more sunken; his larynx did not labour in its office, nor did the distress appear to be so confined to the throat as it was to the bronchi; pulse 110, with power; scarcely able to swallow fluids, which rather ooze down than go by a voluntary act of deglutition; constant delirium; some hard cough. *Hirudines xx. gutturi; pt. pulv. 4tis horis.*

At nine P.M. of the above date, the patient was evidently sinking, the breathing was more laboured, but the muscles of secondary action in respiration were not yet brought into use, and it was, therefore, suspected that some of the dyspnoea arose from bronchitis; however, the distress in the larynx was evidently increasing, the patient was becoming more exhausted under the disease, and it was deemed advisable to attempt relief by means of laryngotomy, which was performed by Mr. Arnott at ten P.M. This gentleman divided the circo-thyroidean ligament, removed a portion of the cricoid cartilage, and thus left a tolerably large and patent wound for the free ingress of air. The man was decidedly relieved from all the urgent symptoms connected with the larynx, and he fell into a calm sleep, with an appearance of great exhaustion. He continued to breathe tranquilly until one A.M. of the 22nd, when the respirations rose to 60; he closed his mouth and breathed entirely through the wound; no tube was introduced, but he continued to sink, and died at seven, nine hours after the operation.

Post-mortem Examination fifteen hours after Death.—The front of the trachea, larynx, and anterior mediastinum was filled with pus, infiltrated throughout the cellular tissue; and on each side of the trachea, but more so on the left, there was a large amount of purulent matter. On the edge of the pharynx, just at its commencement, and where it passes around the top of the thyroid cartilage, there was extensive abrasion of surface, forming large ulcers, which had perforated the muscular parietes of the pharynx, in separate spots, one being on each side of the larynx; and they led into masses of purulent matter, which was dispersed between the crico-arytenoidei muscles and adjacent parts, but it

(a) From some very judicious observations made by Mr. Shaw, which he founds upon a series of experiments on the living and on the dead subject, this invariable symptom in laryngeal obstruction is, I apprehend, to be referred to the tendinous or cardiac, and therefore the least yielding, portion of the diaphragm.—*Vide* "An Address delivered at the Opening of the Classes of the Medical School at Middlesex Hospital," by Alexander Shaw, Surgeon to the Hospital, and one of the Lecturers. 1845. Walton, War-dour-street.

had nowhere entered the cavity of the larynx itself: this organ was sound, and only slightly vascular. Below this spot, however, and through the whole course of the bronchi, the mucous membrane was very vascular and covered with thin, bloody lymph. The lungs were gorged, but healthy; the pleuræ were filled with dark serum.

This operation has been performed on several occasions, in this hospital, by means of a curved trocar and canula, which mode presents many advantages in cases where the patient is in the middle period of life, and where there is not much external swelling of the larynx. The wound made by the trocar is exactly filled by the canula, and therefore no hemorrhage can take place, and, even if it did do so, the blood could not run into the trachea, because at each inspiration the air is drawn in through the canula, which adjusts itself close to the wound that its corresponding trocar has made, and not through an open wound into the lungs. Hemorrhage from this latter occurrence has proved fatal in some instances of laryngotomy performed by the knife only.

But a singular exception to the above plan of operation by the trocar, &c., took place a few months ago in the medical wards. There was syphilitic disease of the pharynx and larynx. The latter organ became so distressed as to threaten suffocation. A consultation was called, and it was determined to perform laryngotomy. Mr. Campbell De Morgan, the operator, was desirous of using the trocar, and of cutting down upon the circo-thyroidean ligament for that purpose, but, on his attempting to thrust this instrument through the membrane, it was found so cartilaginous, and partly osseous, that the trocar would not perforate it in the slightest degree, so that this gentleman justly remarked to the class that, if he had not cut down in the first instance upon the larynx, and laid bare the ligament, he might have done serious damage to the organ by repeated useless efforts to thrust in the trocar. However, he judiciously abandoned this instrument, and with the scalpel and bone-knippers removed a large portion of the osseous ligament, and left a free wound for the egress and ingress of air. The case, that of a man nearly sixty years of age, went on remarkably well for two months, when an attack of pneumonia terminated his life. There was found to have existed extensive ulceration of both chordæ vocales and edges of the epiglottis; one ulcer as large as a four-penny-piece was on the laryngeal surface of this part of the organ. There was pneumonia, and tubercular softening of the upper lobe of one lung.

On several other occasions this operation has been performed by means of the trocar, when the patients were, it may be said, lifeless; that is to say, in one instance of a female, especially, she had ceased to breathe. I was called to her at three in the morning, when I found that impending suffocation was terminating her life, I hastened to the house-surgeon, Dr. S. Merriman, who rushed out of bed, and, without coat or waistcoat, came into the ward, drove the trocar and canula through the crico-thyroidean ligament, blew into the larynx, and, though she lay like a corpse, yet, when the air irritated the bronchial surface, a convulsive, deep-drawn respiration instantly followed, another, and another, until the livid, ghastly countenance gradually gave place to a flushed cheek and natural hue. The whole business, from the moment I saw her breathing her last, until the tube was in her larynx, and she was breathing through it, could not have occupied five, or at most seven, minutes. She lived six weeks after this period. The other instance was in that of an Irish labourer, Dec., 1839, who was suffering from syphilitic disease of the larynx, and which threatened to destroy his life by suffocation, when I was hastily summoned to the man, who was dying, and immediately requested Mr. Tomes, the house-surgeon, to use the trocar for the purpose of relieving the larynx. He did so very skilfully. The man instantly whispered, "It is all right now." He never had a single

(a) The imitation of this unnatural laryngeal sound is well produced by a person attempting to make a harsh "caw"-like noise in his own larynx, which is done by throwing the air forcibly upon the arch of the palate, without allowing the vocal cords to vibrate, and is very similar to the "hiss" which a cat will make when at bay with a dog.

untoward symptom, and he left the hospital to follow his employment, which he continued to do until the early part of last winter, when he returned to us with all the evidences of rapid tubercular softening in the lungs, and died in the course of three weeks after his admission. The larynx is now in the hospital museum, and exhibits those peculiar warty excrescences on its edges, for which disease so many of these cases have demanded the timely aid of the surgeon.

Whilst treating upon the subject of this operation, I must be allowed to state that the instance above referred to, where Dr. S. Merriman operated, at my urgent solicitation, with the trocar, &c., at a moment's notice, upon a female in the medical wards, was the first case in which this operation had been thus performed in this hospital, and I believe it was equally unknown in other establishments; but since that period the far greater number of cases, requiring this immediate relief, have been most successfully operated on by this simple, efficient, and easily-manageable plan.

Dr. Watson, in his excellent "Lectures on the Practice of Physic," appears to have fallen into a slight mistake respecting the issue of all those cases which have been operated on in this hospi-

tal. He classes the adult cases of a chronic nature, for the most part syphilitic in their rise and progress, which have called for the performance of laryngotomy, with those acute and rapidly fatal attacks of laryngitis which have occurred in children, either from the swallowing of boiling water, from croup, or from laryngitis; and he then draws an inference that the operation was unsuccessful in one half of the number. Now, with all the deference that is due to so eminent a physician, it ought to be considered that these two classes of cases should be no more grouped together, than the chronic diseases of joints requiring amputation, should be coupled with those serious lacerations and compound fractures into joints arising from accident, &c., which, from their alarming nature, demand the immediate use of the knife also. It may be fairly stated, that no one operation of laryngotomy has ever been performed in this hospital during the last sixteen years in which the patient has not been decidedly relieved, and has not subsequently done well; three cases only excepted, out of fourteen instances of chronic disease of the larynx and adjacent parts. Whilst, with these exceptions, they have all survived many months, and even years; the

shortest period has been that of four months. But, on the other hand, the instances of an equally large number of cases of laryngotomy performed on children from the above causes, to the amount of twelve or fifteen, over sixteen years, has been unsuccessful; I know not of one single instance where life has been prolonged beyond a few days at the utmost. The question, therefore, of the value of the operation turns upon this point, as I conceive, viz., the chronic disease in the adult, and the acute attack in the young. No unbiassed person can call in question its value in the former, but the propriety of its adoption in the latter class of patients is still a matter of doubt; and unless a clear distinction is drawn between the statistical results of the operation in the class of chronic diseases on the one hand, and in those of an acute nature on the other, no very useful inferences can be drawn for the guidance of the practitioner.

The following table of cases of laryngotomy, performed at various periods upon patients labouring under chronic diseases of the vocal apparatus, will show at one glance the comparative relief and prolongation of life which have followed each operation:—

No.	Sex.	Age	Ward.	Operator.	How Performed.	Character of Disease.	Result.
1	M.	60	Founder's.	Sir C. Bell.	Scalpel only, and removing a portion of cricoid cartilage, leaving a patent wound.	Ulceration of larynx and chordæ vocales.	Recovered; voice nearly restored.
2	F.	46	Seymour's.	Mr. Arnott.	As in No. 1.	A large ulcer in the trachea, near the larynx.	Four months; died at home from another spasmodic seizure of the glottis.
3	M.	45	Clayton's.	Mr. Arnott.	As in No. 1.	Purulent infiltration around the larynx.	Died in nine hours.
4	F.	40	Regent's.	Mr. Arnott.	Trocar and canula.	Ulceration of larynx.	Recovered, and afterwards transported for larceny.
5	F.	46	Handel's.	Dr. Merriman	Do. do.	Do. do. do.	Was seen at the hospital a year after the operation, quite well.
6	F.	50	Whitbread's.	Mr. Arnott.	As in No. 1.	Laryngitis occurring in a case of cancer.	Died in seven hours.
7	M.	16	Founder's.	—	As in No. 1.	Ulceration of larynx. Phthisis.	Four months.
8	M.	10	Do.	Mr. Shaw.	Trocar and canula.	Hypertrophic tonsils pressing on rima glottidis.	Now living.
9	F.	35	Queen's.	Mr. Arnott.	Do. do.	Ulceration of larynx.	Lived three months.
10	F.	58	Bird's.	Mr. Arnott.	Do. do.	Syp. dis. of do.	Now living.
11	M.	37	Pepys.	Mr. Tomes.	Do. do.	Do. do. do.	Seven years.
12	M.	60	Founder's.	Mr. Campbell De Morgan	Ditto, ditto; removing first a portion of osseous crico-thyroidal membrane.	Do. do. do.	Ten weeks, a fistulous communication between pharynx and larynx. Tubercular excavations in lungs; pneumonia.
13	M.	50	Pepys.	Mr. Shaw.	Do. do.	Ulceration of larynx.	Doubtful.
14	F.	4	Seymour's.	Mr. Mayo.	Scalpel only.	Warty excrescences around the rima glottidis.	Blood from the wound rushed, by the deep-drawn inspirations, into the trachea, and the child died from suffocation in a few hours. This unfavourable circumstance is alone a sufficient plea for the use of the trocar and canula. There was pulmonary apoplexy.

It is scarcely necessary to refer to the subject of tracheitis or croup. The disease is well known and easily recognised by a discerning eye; but it cannot be too strongly urged upon the mind of the professional man, that if any ultimate benefit may be anticipated from the operation of laryngotomy in this destructive form of inflammation (and even this is very questionable), the timely use of the knife is of the utmost importance, as the delay of a few hours only may leave the patient beyond the power of all human aid.

Pleurodynia, and spasm of the diaphragm, are sometimes met with in delicate constitutions, or in persons who are habitually of a bilious temperament. If the hepatic biliary system is loaded, and the stomach receives some indigestible food, such as pork, veal, raw vegetables, food fruits, or wines, &c., a few hours or even immediately after the noxious food has been taken, the patient is suddenly attacked with acute excruciating pain either in the epigastrium, over the short ribs, or around one mamma. The countenance rarely betrays more than negative evidence in such seizures; there is no

actual distress depicted in the features, but the patient writhes from side to side, and is afraid to move or respire deeply on account of the aggravation it causes to his sufferings. I know a medical gentleman, formerly a pupil of this hospital, who was attacked with pleurodynia, and unfortunately he was under the hands of a practitioner who did not recognise the distinction between inflammatory pain and mere spasm, and he was made to lose twenty ounces of blood on two separate occasions, without the slightest relief to his sufferings. The pain gradually wore itself out, and I saw him soon after the attack, and could not find the slightest trace of recent pleuritis, by auscultation or otherwise, in his chest. The painful surface could have been covered by a shilling, and was extremely sensitive, so that he could not move in his bed without great distress. A lady, suffering from most violent pain through the mamma to the scapula, was relieved by a full dose of calomel and colocynt, and a purgative saline; but the severity of the pain induced me to auscultate the chest, before I could have ventured to have pronounced the attack purely muscular, and not inflammatory.

The physiognomical characters of pleuritis have been already touched upon, and therefore they do not require further elucidation; but the third division of this class is now to pass under consideration.

REPORT OF THE PHYSICIAN OF THE SMALLPOX AND VACCINATION HOSPITAL, LAID BEFORE THE GENERAL COURT OF GOVERNORS, HELD AT THE HOSPITAL ON FRIDAY, FEB. 4, 1848.

By GEORGE GREGORY, M.D.

A retrospect of the occurrences at the Smallpox Hospital during the year 1847 presents several considerations well worthy of the notice of the governors at a time when their thoughts must naturally be directed to the erection of a new building, which shall be adapted to the present wants of the public and the altered circumstances of the times.

Eighty years have elapsed since the building now in use was erected; during one half of that

time (1767 to 1807) inoculation was practised; during the other half (1807 to 1847) vaccination has been practised exclusively. It is of the utmost consequence that the governors should now weigh well the influence which vaccination has had upon the character of the disease for the treatment of which this hospital was designed. To illustrate this important point, I beg to lay

before the governors a "Table of the Chief Variolous Epidemics which have occurred in London during the last Seventy Years," calculated to show the changes which time has produced on the character of the cases claiming admission into the hospital, with some explanatory observations:—

TABLE OF VARIOLOUS EPIDEMICS IN LONDON.

Years of Epidemic Prevalence	1777	1781	1796	1825	1836	1838	1844	1847
Years of interval between the epidemics		4	15	29	10	3	6	3
Total admissions into the Smallpox Hospital	497	646	447	419	401	712	647	461
„ admitted, not having smallpox				7	7	18	4	11
„ „ having smallpox	497	646	447	412	394	694	643	460
„ deaths during the year	125	267	148	120	89	188	161	81
Total admitted "unprotected"	497	646	447	265	250	396	331	170
Deaths in this class	125	267	148	108	82	167	127	64
Rate per cent. in the same	25.3	40	33	40	33	40	38	38
Total admitted after vaccination				147	144	298	312	280
Deaths among the vaccinated				12	7	31	24	17
Rate of mortality in the same				8	5	10	8	6
General rate of mortality (per cent.)	25	40	33	28	22	26.5	23.5	18
Ratio of those admitted after vaccination to the gross admission (per cent.)				35	36	42	50	61

From this table it will be seen that the admissions into the Smallpox Hospital during the past year amounted to 461. Now, since the opening of the building, in 1767, there have been only seven other occasions where the admissions exceeded 400. These seven years of remarkable epidemic prevalence were 1777, 1781, 1796, 1825, 1836, 1838, and 1844—three in the last century, four in the present. The intervals between these epidemics have been, respectively, four years, fifteen years, twenty-nine years, ten years, six years, and on two recent occasions three years. The governors will hence perceive that the benefits conferred on the public by this hospital are now not simply as great as formerly, but, from the diminishing intervals of epidemic prevalence, have very materially increased.

The table further shows that the average character of the cases admitted has undergone a most important alteration since the year 1780, the rate of mortality having fallen from forty per cent., where we find it in 1781, through the several gradations of thirty-three, twenty-eight, twenty-six, twenty-three, and twenty-two per cent., to the low rate of eighteen per cent., which has been the mortality during the past year.

I would next call the special attention of the governors to the obvious cause of these discrepancies—the ratio which subsists between the two classes of cases now admitted into the hospital—namely, the vaccinated and the unvaccinated.

In 1825, when, for the first time after the general adoption of vaccination, smallpox became epidemic in London, the ratio of those admitted after vaccination to the gross admissions was (as the table shows) thirty-five to 100. Ten years afterwards, viz., in 1835, the proportion had advanced from thirty-five to thirty-six per cent. In 1838 it had advanced to forty-two per cent.; in 1844 to fifty per cent.; and in the year just elapsed to no less than sixty-one per cent.: that is to say, considerably more than one half of all those who applied for admission into the Smallpox Hospital during the year 1847 had, in some former period of their lives, and chiefly in infancy, undergone vaccination.

The rate of mortality in this class of patients has always been very moderate. The table shows that on one occasion, viz., in 1838, it reached ten per cent., but on an average of the five epidemics recorded in the table it was only seven per cent. During the past year it was below the average, being only six per cent.; that

is to say, out of 280 patients so circumstanced only seventeen died.

The total deaths in 1847 at the hospital amounted to eighty-one. The number of persons admitted without having previously undergone vaccination was 170. Of these, sixty-four died; being at the rate of (very nearly) thirty-eight per cent.

Such are some of the principal facts offered to the consideration of the governors in the accompanying table. It may further be interesting to them to know, that of the 461 persons admitted, 269 were males, 192 females. The greater proportion of the patients were adults in the prime of life: Twenty-nine children were admitted under six years of age. The oldest person admitted was sixty-three years of age. The earliest age at which any one was received having smallpox subsequent to vaccination, was eleven. The oldest person admitted, after prior vaccination, was forty-nine years of age. The earliest age at which any one died, after vaccination in childhood, was sixteen. The oldest person who died, after prior vaccination, was aged forty-one.

The foregoing facts afford much matter for reflection and speculation. Here they are brought forward simply to impress upon the minds of the governors the necessity of providing in the new hospital for a due classification of the several orders of patients now admitted within the walls of the institution. The separation of the severe natural cases from the mild cases occurring after vaccination—the separation of children from adults—is obviously demanded by the altered circumstances of the times. But the necessities of the case extend much further than this: women of disreputable character (affected also by the syphilitic disease) are often received, whom your medical officers would gladly (if the means at their disposal permitted) seclude from the well-behaved women. Clerks in mercantile houses, and others in like circumstances, driven from their lodgings by the alarm of landlords or of fellow-lodgers, are also now admitted in numbers which appear to augment. These persons your medical officers would gladly provide (if they could) with a separate apartment, having such simple furniture and accommodations for dressing as are suitable to this class of the community.

The vaccination department of the hospital appears to increase in public favour. The numbers vaccinated in 1846 were 2783; in 1847 they amounted to 3230. The number of medical prac-

titioners who applied for vaccine lymph in 1846 was 2013; in 1847 they increased to 2166: showing on the two accounts an increase of 600, or twenty-two per cent.

In the month of March last, the Government of Modena applied to this hospital for an effective vaccine lymph, from which to originate a new series of vaccinations in the north of Italy. The request was immediately complied with, and on the 6th of April, a communication from Count Guiseppe Forni, Minister of Public Instruction to the Duke of Modena, informed me of the complete success which had attended the first trials with the new London lymph.

On the 16th of August last, a disease affecting sheep, supposed to be of the same nature as smallpox, broke out in the flocks of Mr. Statham, farmer, of Datchet. This disease had been imported into this country from Toumigen, a town on the coast of Denmark, by a cargo of Spanish sheep, in the ship Trident. A second cargo, from Hamburgh, brought by the Mountaineer, became affected in like manner on the farm of Mr. B. Weal, of Woodhall, near Pinner. The resemblance of this disease to smallpox is very remarkable, both in symptom, mode of communication, and rate of mortality. The occurrence led to a series of very interesting investigations, chiefly conducted at the Veterinary College, Camden-town, by Mr. J. B. Simonds. The medical officers of this hospital co-operated as far as lay in their power in these inquiries, and Mr. Marson devoted much time and attention to the subject. When fully developed, the investigation can hardly fail to throw some new and valuable light on the history of smallpox, and on the relation which it bears to other diseases, both of man and animals.

31, Weymouth-street, Feb. 3.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Feb. 1; M. ROYER-COLLARD in the Chair.

SALE OF LEECHES.—An official report was read by M. Soubeiran, referring to the propriety of placing some restrictions upon the freedom of the leech trade. The commission recommended that the sale of gorged leeches be strictly interdicted; that the sale of leeches weighing less than two grammes, or more than six grammes, be also forbidden. The reporter was of opinion that during the next six years it would be advisable to prohibit the fishing of leeches, and to oblige the administration of hospitals to preserve the leeches already used in sufficiently large ponds.

M. Richoud des Brus was elected corresponding member.

CLINICAL MEDICINE.

Causes of Disease.—Albuminous Nephritis. By Professor Chomel.

The division of pathogenic causes into predisposing and accidental has outlived all vicissitudes, all theories, and all systems, because it reposes upon vigorous observation of facts. If, however, you follow attentively the development of disease, you will find that, besides some maladies which appear soon after the action of a given cause, others are due to the slow and progressive agency of the same influence—to the frequent repetition of the cause. Predisposing, therefore, sometimes must be confounded with accidental causes; and the incessant action of the former at last becomes equivalent to the sudden, rapid, and powerful action of the latter.

In order to become convinced of the truth of these remarks, it will be sufficient to glance at the secondary or intervening maladies which occur during the course of chronic disorders. Let us take inflammations as an example. If, at the present day, any fact is fully acquired to science, it is this, that inflammations do not exclusively attack strong constitutions or sanguine temperaments; it is because their cause is not

exclusively a sudden disturbance of the system, from suppressed perspiration, or other similar circumstances; indeed, inflammations may, perhaps, be said to be more frequent during the progress of chronic diseases, when no appreciable cause of their development can be detected.

It is necessary to illustrate this remark by reminding you of the frequency of acute pleurisy or peritonitis during the last stage of pulmonary consumption, of the erysipelas which sometimes occurs at the close of maladies, of the cutaneous eruptions which are seen at the termination of the serious chronic diseases of children. Inflammatory action can, therefore, find its elements in constitutions debilitated by anterior maladies; and, experience having taught us that these inflammations may for some time remain latent and concealed, it is impossible not to acknowledge that the cause of such inflammations must have been slowly produced, and have gradually been increased from the unceasing action of circumstances inherent to the very nature of the chronic malady the subject is affected with. We will, this day, make the application of the foregoing remarks to a disorder, recently discovered, it is true, but which has, in consequence of the numerous publications it has occasioned, acquired an important place in pathological science—we refer to granular kidney. It is our wish to attract public attention in this country to two points connected with that malady, viz., its connection with pulmonary consumption and with pericarditis.

CASE.—On the 30th of December, 1847, a young man, aged twenty-one, was admitted into hospital; his constitution was lymphatic, and a twelvemonth before his admittance he was in perfect health; at that period, having entered as apprentice in the service of a hairdresser, he became subject to frequent coughs and occasional hæmoptysis, which coincided with the fact of his sleeping almost on the floor of a damp room. Since that time his appetite decreased, and diarrhoea set in towards the middle of December; the face and limbs became oedematous, and the patient came to hospital, when albumen was detected in the urine; slight tenderness existed in the right renal region. Nitric acid and sedatives were used without benefit, and death occurred towards the middle of January. On dissection tubercular excavations were found in both lungs; the pericardium was attached by firm adhesions to the whole anterior surface of the heart; the peritoneum presented marks of recent inflammation. The kidneys were hypertrophied; their cortical substance yellow, slightly granular; the pyramids of a dark red colour, and in a state of atrophy.

In this case it seems evident that the disease of the kidneys was consecutive to the pulmonary affection. What is the degree of frequency of the coincidence of consumption and albuminuria? Adding Dr. Gregory's cases with those collected by Dr. Rayer and by Mr. B. Peacock, we find that in 117 instances of granular nephritis, advanced phthisis existed twenty-six times, and crude tubercles in ten subjects, i.e., in nearly one-third of the total number of cases, consumption coincided with albuminuria. Examining the statistics already published on the subject, we find that in albuminuria the heart and liver are diseased in one-third of the patients, and the lungs in two-thirds; in one half of these cases they are tubercular. This proportion is too large to be considered as the mere result of chance coincidence, and must, perforce, induce us to look upon the causes of granular nephritis and of tubercular consumption as very closely connected with each other. Further, in one-sixth of the number of cases of phthisis albuminous nephritis is observed; thus the complication of nephritis, with regard to its frequency, comes immediately after the secondary alterations of the digestive tube and of the larynx, and before the deposits of tubercular matter in the viscera,—deposits which the researches of Louis Lombard and others have shown to be extremely rare after fifteen years of age.

With regard to pericarditis, we will say that Mr. Taylor, in his classification of pericarditis according to its cause, divides cases into two classes: The first consists of subjects in whom the pericardial inflammation occurred during health; the second, of persons who were labouring under chronic disorders. The first class is almost altogether constituted by cases of acute articular rheumatism, and two-thirds of the second refer to albuminous nephritis.

Besides, pericarditis is not the only inflammation which granular kidney has a tendency to occasion; most serous membranes may also be similarly affected under its influence. What is the cause of this general tendency of the system towards inflammatory action during the course of albuminous nephritis? It is not the increase of the fibrine of the blood: is it the presence of urea in that fluid, and the continual losses of serum? To these questions we regret it is not in our power to return a satisfactory answer: we must leave them to be solved by the researches of chemistry and physiology.—*Union Médicale.*

OPERATIVE SURGERY.

Operations performed at intervals (en plusieurs temps). A Memoir, read by Dr. Vidal (de Cassin) to the Academy of Medicine at the Meeting of Jan. 26.

In my opinion, operative surgery yields too frequently to the ancient rule of "unity of time," and does not sufficiently obey the laws of nature. I intend in this paper to combat the precept of unity of time, and to defend the advantages of a contrary principle—that of operations performed at intervals.

I give this denomination to operations which the surgeon accomplishes in several successive actions, separated by more or less considerable periods of time. No doubt nothing can be more brilliant than the removal in a few minutes of a disease which for years had threatened life; but it also sometimes happens that the sudden and, as it were, instantaneous removal of an ancient malady, to which the system had become almost accustomed, causes a deep disturbance and depression of the constitution, and prevents the possibility of a salutary reaction after the accomplishment of the operation. Besides, in a properly regulated method there are circumstances which can be brought about only by the intervention of Nature. For instance, when a foreign body, engaged deeply in our structures, is eliminated without the interference of art, nature causes successive divisions and cicatrizations by which the foreign body is gradually brought to the skin. Thus, in abscess of the liver, whilst ulceration destroys the walls of the purulent sac, adhesions form between the visceral and parietal layers of the peritoneum, which prevent effusion of pus into its cavity; this synthesis, which cannot be executed by the surgeon, must perforce be confided to Nature, in order to avert a fatal accident. The intervention of Nature is not necessary only in the operations rendered indispensable by disorders which threaten life. Auto-plastic surgery must also have recourse to its resources: the region which requires reparation must be prepared, the substance or portion of skin to be displaced must be brought gradually by slow journeys, as it were, from its present seat to its future destination; in a word, some auto-plastic operations of a dangerous nature may cease to be so, if the principles which I now bring forward be attended to.

I will now endeavour to throw some light upon these principles, and point out their important applications.

1. EXTRACTION OF ARTICULAR CONCRETIONS.—M. Goyrand admitted the principle which I defend, and which I had elsewhere brought forward, when, for the purpose of extracting a loose cartilage from a joint, he completed his operation only when he could rationally suppose the articular wound to have healed. The following was the operative process adopted:—The first part of the operation was accomplished according to the rules of sub-cutaneous operations, the skin

being divided at some distance from the spot of the articular capsule which was to be opened, leaving an oblique passage between the wound of the skin and the capsular action. The loose cartilage was then forced out of the articular cavity through the opening of the capsule into the cellular tissue, and fixed there until the wounds were completely healed: thus the cartilage had become an extra-articular foreign body, the definitive removal of which was obtained by a simple operation unattended with peril. A small incision permitted its escape, and in five days the patient was completely restored. It was physically impossible for air to penetrate into the joint: during the first period, the foreign body opposed its passage; and in the second operation, the capsule was completely healed.

2. BRONCHOTOMY.—In order to prevent hæmorrhage into the trachea, M. Récamier recommends to divide all the tissues from the skin to the trachea, and to open that tube only twenty-four hours after. But when it is recollected that tracheotomy is almost invariably an operation performed in urgent cases, when time is of the utmost value, this method will justly be abandoned.

D. MCCARTHY, D.M.P.
(To be continued.)

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Jan. 26.

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

ON INFLAMMATION AND ABSCESS OF THE UTERINE APPENDAGES (OVARIES, FALLOPIAN TUBES, AND CELLULAR TISSUE).

By Henry Bennet, M.D., Physician-Accoucheur to the Western Dispensary.

The author observes, that during the last thirty years the subject of pelvic abscess, considered generally, has been much studied by French pathologists—by Menière, Andral, Grisolle, Marchal de Calvi, &c. In our own country it has received comparatively little attention; if we except the valuable articles of Dr. Doherty and Dr. Churohill, in "The Dublin Medical Journal," and the recent article of Dr. Lever, in "The Guy's Hospital Reports." By all these authors this disease is considered as all but characteristic of the puerperal state, and as very seldom occurring under other circumstances. This, the universal view of the profession, with respect to the pathology of inflammation and abscess of the uterine appendages, the author considers is very far from being a true interpretation of the facts. In reality, the disease is not at all uncommon in the non-puerperal state, only it is not recognised, being confounded either with acute metritis, chronic metritis, iliac abscess, or some other pelvic lesion. The principal difference that exists between the puerperal and non-puerperal forms of inflammation is the following:—In the former, owing, probably, to the increased quantity of fibrine contained in the blood, there is a great tendency to inflammation. Hence, if the structures contained in the lateral ligaments are attacked with inflammation, the tendency of the latter to invade the peritoneal folds themselves, and the surrounding tissues, gives rise to the formation of large pelvic inflammatory tumours, abdominal adhesions, and perforations, often resulting in death. In the non-puerperal state, on the contrary, inflammation of the uterine appendages seldom extends to the peritoneum, and the purulent formations nearly always escape, in a latent manner, by the rectum or vagina. In this form of inflammation of the organs contained within the folds of the lateral ligaments, the element most frequently attacked is the cellular tissue which separates the peritoneal folds, and surrounds the ovaries, round ligaments, and Fallopian tubes. It may be produced by any cause which exaggerates the vitality of the uterine system. The author has seen it occur frequently from ulcerative disease of the cervix, or from a severe fall. The inflammatory tumefaction to which it gives rise may be attended with sufficient swelling to be recognised

by pressure over the abdominal parietes; but an accurate diagnosis can only be formed by examination *per vaginam*. It may terminate by resolution, but more generally by suppuration, and the discharge of pus by the rectum, vagina, or bladder, or by perforation of the abdominal parietes. When this takes place, however, the disease is not brought to a close, but during a longer or shorter period the patient continues to discharge pus in a latent manner, and to suffer from the symptoms of chronic uterine or pelvic disease. After giving this description of the disease in question, the author briefly alludes to the treatment, which, he observes, must be merely that of phlegmonous inflammation, carried out in accordance with the laws of therapeutics. The length of the paper precluded him from illustrating his account by cases, although he had seen many of great interest. He detailed, however, the heads of one which he had attended during the last year.

THE MEDICAL TIMES.

SATURDAY, FEBRUARY 12, 1848.

A WORD FOR SUNSHINE.

"Stand from between me and the sun."
Diogenes to Alexander.

LORD MORPETH'S Public Health Bill, just introduced, has strong claims to the most commiserating attention of our readers. Without our doctorship it is evidently doomed, by inherent want of constitutional stamina, to an early death or moribund life; and cold and unsympathetic must be the medical man who, knowing Lord Morpeth or his intentions, would withhold aid against so undesirable a calamity.

The great and cardinal defect of the measure is its incompleteness. It is a truncated deformity, showing something of promise, but wanting much of the fitness, fullness, and usefulness of matured development. To legislate for public health, and yet omit all reference to the systematic mischief inflicted on public health by large parts of our fiscal administration, is to carry absurdity to its excess. It puts Government in avowed wrong-doing and undoing, and both at a disadvantage of principle, policy, and consistency; giving people advice gratis at the same time that it is poisoning them at a heavy profit; and soiling them at one hour for the sake of revenue, while it is cleansing them at another for that of repute.

Passing over the inferior fiscal anomalies which obtain the support of a sanitary Government—omitting even that singular law by which poor people pay Mr. Benjamin Hawes and the Government a fine for carrying about with them a clean face or white shirt—let us be permitted to say one word on that penalty on light and ventilation, silently perpetuated—as we are informed—in the present measure under the shape of "window duties."

To describe the "window tax" tersely—it is a plan for keeping light and air from the population, and stunting them both in their moral and physical development. Have you a house with abundance of apertures for light and air? You are under the ban of Government. If you would spare your income, you must shut out heaven. Hence the closed and painted windows; hence dark rooms; hence passages and rooms to which the light never gets access; and hence the modern architectural deformities by which people, sacrificing appearances to health, and cheating Government into a toleration of family health, struggle—alas! that in a Christian

country there should be such a struggle!—to get the sun's rays at a moderate price!

Good sewerage and good drainage are very far from being the substance of sanitary reform. The want of them may vitiate the air; but the want of light and air is the *vitiatio* itself. With free ventilation all other morbid agencies lose their poisonous character; without it, all changes, however costly, are useless. What the window duties exclude, that is the object of all sanitary legislation to let in; and, if people are to inhale a poisonous atmosphere, it matters but little whether the drainage and sewerage are excellent as laws can make them, or bad as landlords will leave them.

Our profession has here a high duty and heavy responsibility to discharge. It is for us especially to call attention to the monstrous anomaly of which Government, in ignorance, are assuming the paternity. Their fiscal system is permanently undermining the health of a large portion of our industrious people—those people on whose well-being the wealth and strength, no less of the country than of their own families, depend. While it is a part of Government policy that houses in towns shall be ill lit and ill ventilated, there can be no general good health—nor any city exempted from infectious disease. Our mechanics and labourers whose work keeps them within doors, having their health reduced below par, will be ready victims for receiving and extending every malarious influence. They will be slowly shaped to disease's fitness; systematically manufactured into the materials of pestilence; and, perishing under an unwise law, they leave behind them a fatal legacy of suffering, from which no class can keep exempt. The constitution of man, no less than the whole economy of nature, demonstrates but too clearly that He who said "Let there be light!" never contemplated any limitation by acts of Parliament of that "good" which was divinely predated of it on the morning of creation; and weakness—disease—death are the wide-spread and tragic indices that stand everywhere around to admonish legislators, that, if taxation be a necessity, it is a necessity which should not be converted into a rebellion against nature.

The following petition has been forwarded to Viscount Duncan:—

"The Petition of John Murray, Ph. D., of the town of Kingston-upon-Hull,

"Humbly sheweth,

"That your petitioner has spent many years of his life in researches on ventilation and disinfection, and, after the most mature deliberation, has arrived at the settled conviction that all sanitary measures must be worthless and unavailing so long as the obnoxious impost on the boon and blessing of light remains unrepealed, aggravated tenfold by the vague and indeterminate definition of the term window. May it, therefore, please your Honourable House to take the question of the window duty into your early consideration, with a view to abolish this cruel and impious tax.

"And your petitioner, as in duty bound, will ever pray. "J. MURRAY, Ph. D.

"Portland-place, Hull, Feb. 1."

The following petition was also confided to Viscount Duncan, and bore about a hundred signatures;—amongst others, those of Guy, Toynbee, Southwood, Smith, Solby, Barnett, Startin, Smee, Grainger, Waller, &c.:—

"That your petitioners, who, from their professional avocations, are engaged in a daily investigation of the causes of disease, and of the varying mortality of different sections of the

population, are deeply impressed with the conviction that the prevention of sickness and preservation of public health are dependent to a great extent upon legislative measures of sanitary precaution, the neglect of which often paralyzes the exertions of the private practitioner.

"That your petitioners believe that in very numerous instances fever might be abated and life prolonged, and the annual mortality greatly diminished, by a vigilant attention on the part of Government to the drainage of unhealthy districts, the abundant supply of water at a cheap rate to the houses of the poor, the light and ventilation of lodging-houses, workshops, and basement floors, and the interment of the dead in suitable cemeteries, removed from the habitations of the living.

"And your petitioners having been led to observe that the defective ventilation of the inferior class of houses in towns, and the gloom and dirt amidst which the poor reside, are often occasioned by the anxiety of occupiers or landlords to avoid the window duties, pray your Honourable House to take into its series consideration the moral as well as physical evils that result from the blocking out of air and light to lessen the pressure of taxation; and your petitioners pray that, if the amount now levied in this form, cannot be wholly dispensed with, the system of varying assessments may be changed into that of a fixed burden, in no case exceeding the amount now collected; so that the window duties may cease to operate as a tax upon health, and that no fiscal impediment may remain to the improvement of habitations in respect either of their cheerfulness or perfect ventilation.

"And your petitioners, &c."

GOVERNMENT REMUNERATION OF IRISH MEDICAL PRACTITIONERS.

THE misfortunes which have befallen many of the families of Irish medical practitioners, and the strong remonstrances of the press, have not induced the Government to become more liberal in remunerating professional services in Ireland. The Executive seems to have resolved on a certain course, and doggedly pursues it, heedless of the cries of the distressed, or the admonitions of justice. It has determined, we suppose, not to succumb, and hence a false dignity must be maintained, even at the expense of suffering humanity. Yet there are circumstances under which it is more honourable to be conquered than to conquer, and the Irish Government would now win a wreath of laurels by submitting to the just demands of medical practitioners. Had these gentlemen been animated by a mercenary spirit—had their duties involved the exercise of little skill, or had they incurred a small amount of danger—it would, perhaps, have been a virtue on the part of Government to have resisted their demands. The duties of the physician, however, are both arduous and perilous, and yet he is compelled by the high officers of state, when his aid is required for the sick poor, to exercise his vocation for the pitiable sum of five shillings a day. In its dealings with the other professions the Government acts with a more liberal spirit. The church has been provided with ample funds to reward those who labour for the good of souls; lawyers, when called to fill public situations, have salaries granted them such as are befitting an honourable profession. But in medicine there are no tempting sinecures, though the Irish doctors are daily crowned.

The Government, having fixed the amount of pay, and having refused to hearken to remonstrances, has emphatically declared that the reward is in proportion to the labour and risk incurred. We will, therefore, just glance at a few facts, in order that we may clearly understand how far there is justice in its determination.

For five shillings per day the Irish medical practitioner has to engage in the most arduous labours. The epidemic fever which prevailed last year was of so virulent a character that thousands of the population sickened and died. Famine and poverty, doubtless, called it into existence, and aggravated its severity whenever it was manifested. So rapidly did the fever spread, that the hospitals were speedily filled, and numbers of the sick and dying, unable to obtain admission, were left in the streets and lanes. Every fever-shed which was erected for the reception of the miserable victims of disease was speedily filled, and there was scarcely a cottage in which one or more of the inmates were not suffering from the malady. Fresh attacks were hourly occurring, and to attend large numbers was the duty of the medical practitioners appointed by the Board of Health. Under such circumstances all the energies of mind and body must of necessity have been brought into operation. The day scarcely afforded hours enough for the discharge of the duties of the professional attendants of the sick poor, and hence there was little hope of adding to the sum which the Government allowed by attending persons in circumstances which enabled them to pay for medical skill. It is evident, therefore, that the labour here required must have interfered greatly with private practice, and, as a natural consequence, would affect to a considerable extent the practitioner's income arising from this source. And yet such has been the liberality and justice of the Government, that it has used every means in its power to force Irish physicians and surgeons to accept the most paltry sum for such herculean labours.

In addition to the duty it is necessary to contemplate the danger to which they are exposed. During the past year one hundred and seventy-eight Irish medical practitioners have died—seventy-one from attendance on fever cases; thirty-four from hospital duties; forty-eight from attending the poor in bleak and thinly-populated districts; and forty-six from causes not specified. The percentage is truly appalling when we consider that the number of medical practitioners in Ireland, according to the statement of Drs. Cusack and Stokes, in "The Dublin Quarterly Journal," is only 2622. In an excellent article by these gentlemen, in the last number of that publication, on the mortality of Irish medical practitioners, the following deductions are drawn from the inquiries instituted:—

"1. That the physicians and surgeons of Ireland are, by their profession, more exposed to the influence of fatal diseases than any other class of the community of a similar grade; and that they are at all times liable to these influences.

"2. That few, if any, of the medical profession in Ireland escape typhus fever; that many have had it twice, and several three times.

"3. That the fevers of medical men in Ireland are almost always of a bad character, even when the epidemic is not of the worst kind; and that, consequently, fever has proved more fatal to medical men than to any other class of the community of a similar grade in this country.

"4. That the fevers and other infectious diseases, from which our profession suffers so severely, are generally contracted in discharge of public duties, either in attendance upon sanitary institutions, or in the miserable, ill-ventilated, and dirty dwellings of the poor.

"5. That, according to our returns received for the period prior to 1843—undoubtedly deficient—568 out of 1220 practitioners, in charge of medical institutions, suffered from typhus fever; of these twenty-eight had fever twice, and

nine three times; and that of the whole number three hundred, or one-fourth, died.

"6. That the calculations contained in the papers which we have now laid before the public show that of 743 deaths of medical men, of which we possess the particulars, 331 were caused by typhus fever, or 1 in every 2.24;—nearly forty-five per cent. of the whole.

"7. That, during the prevalence of the late epidemic, 500 Irish medical men, at the lowest computation, suffered from fever or other epidemic diseases, contracted for the most part in discharge of public duties, by which themselves and their families have suffered considerable loss.

"8. That about one-fifteenth of the entire medical community of Ireland have died during the year 1847.

"9. That during the continuance of an attack of fever, and in cases of recovery for a long period subsequent to it, the families of medical men are deprived of their exertions—usually their only means of support."

Such are the dangers to which the health, property, and life of medical men are exposed in Ireland, in attending upon the sick; and yet the Government would force them to incur all these for a crown a day. We say "would force," because it has used certain threats which would be carried into execution did not the rebellious succumb. We mistake the character of our medical brethren on the other side of the water, however, if they are easily brought into subjection by the Board of Health. Their cause is one of justice and humanity, and will, if not abandoned by themselves, at last triumph. In a country where so many causes are in operation to shorten the lives of medical practitioners, the Government must, if the honour and usefulness of the profession are to be maintained, provide a fair remuneration for the services of its members in its employ, and make some provision for their widows and orphans. We earnestly counsel the medical members of the Board of Health, therefore, to advocate forthwith such measures, or they may rest assured that greater disgrace yet awaits them than that which they have hitherto experienced.

PARTNERSHIPS BETWEEN SURGEONS AND DRUGGISTS.

THE honour and respectability of the profession require that the illegitimate and empirical alliances between surgeons and druggists, and physicians and druggists, should be put down by the strong hand of the law.

The increase of the practice, and the assurance with which it is avowed, are additional reasons for intervention. Only a few days ago, the papers contained the formal announcement of the dissolution of partnership between a surgeon and druggist; and, though this kind of avowal may not be very frequent, the practice itself is far too general.

If a barrister and attorney were to unite in this way—a kind of lion-and-jackal league—we know what would be the result. The attorney's name would disappear from the rolls, and the barrister would be disbarred.

The Council of the College of Surgeons have similar powers, and we understand that they will be stringently exercised wherever a clear case can be established. Of what use, in any sense, can be attempts like those of Sir James Clark, when any druggist can have in his back parlour as scientific a practitioner as the court physician, giving advice on which his profit is to be one farthing or halfpenny on each pill ordered? Or of what avail our protests against quack operations and quack advertisements, if

surgeons may, by contract, establish themselves in the same shop with a druggist, to be in the way of luring a chance customer into the dangers of patientship? These things must be done away with.

IMPERMEABLE PILINE.

We have hitherto, from perhaps over-caution, refrained from alluding to the materials introduced some fifteen months since by Mr. Markwick; but the favourable opinion we at first formed of them is daily becoming so strongly confirmed, that we feel bound to perform a duty, which as editors of a public journal, as editors of the *Medical Times*, we consider we owe not merely to Mr. Markwick, but to the profession at large, by at once directing attention to them.

An *effectual, cleanly, and convenient* mode of poulticing has been a great desideratum from the very commencement of the science of medicine. An article, therefore, capable of fully effecting this object must be hailed as a very valuable acquisition to our list of therapeutic agents. Such, indeed, is the *ARONIO PILINE*, the advantages of which, however, are too numerous to mention; suffice it to say, that it has proved more beneficial, more economical, and of more extensive application than any of the remedies it is intended to supersede.

The *IMPERMEABLE PILINE*, in our opinion, is by no means a less useful invention, and may be very advantageously had recourse to in numerous cases. In a word, we congratulate the profession on possessing materials which afford greater benefits, and without the objections and inconveniences attending the employment of common cataplasms, &c.

CHLOROFORM IN PUERPERAL CONVULSIONS.

By ANTHONY C. CLIFTON, Esq., Welwyn, Herts.

I was summoned at one o'clock on Saturday morning (the 29th of last month) to Mrs. T., who was in labour with her second child, her first having been born about eight years before.

On my arrival I found the os uteri dilated to about the size of a shilling, and very rigid; pains regular at intervals of fifteen or twenty minutes. Three o'clock a.m., os uteri about the size of half-a-crown, still rigid, and very unyielding; progressed slowly until half-past ten o'clock, when I received a summons to the bedroom, the nurse stating Mrs. T. was in hysterics. I then found her in convulsions. The os uteri being pretty fully dilated, I directly ruptured the membranes, hoping to give relief; but the next pain was attended with a most severe convulsion, partaking of the character of apoplexy. I then bled her to the extent of eighteen or twenty ounces; this gave relief for the next two or three pains. The convulsions then returned with, if possible, still more severity; my friend Mr. Thomas, of Hatfield (who had been summoned), suggested the propriety of administering 3ss. of secale, and using the chloroform; the pulse and great prostration not justifying further depletion, the countenance at this time exhibiting great anxiety and depression. Having used the chloroform, in less than half a minute the patient sank into a most tranquil sleep; labour-pains still continuing at regular intervals, she was safely delivered of a living male child, having been under the influence of chloroform forty-five minutes without any recurrence of the convulsions.

Feb. 3. Mrs. T. has progressed most favourably since her confinement.

It is a curious circumstance that Mr. T.'s first wife died of puerperal convulsions, and also his present wife's sister.

GOSSIP OF THE WEEK.

NEW HOSPITAL AT CHELTENHAM.—The foundation-stone of a new hospital for the reception of 120 patients was laid by Lord Dunally, on Tuesday, Jan. 25.

MR. SYME'S APPOINTMENT.—Mr. Syme delivered, on the 3rd of February, his valedictory lectures in the Edinburgh Infirmary, previous to leaving for London. He stated that his principal reason for accepting a clinical chair in University Hospital was a persuasion that he would be able fully to carry out his plans for the relief of the sick poor, and for the instruction of the student. In concluding he touched briefly, but pointedly, on the difficulties thrown in the way of surgical teaching in Edinburgh.

SCOTTISH POOR-LAW.—IMPORTANT DECISION.—Dr. J. B. Hay, one of the suspended district-surgeons of the city of Glasgow, has successfully sued the parochial board for the amount of his quarter's salary. The board, some time ago, suspended Drs. Hay, Paterson, and others, in a most disgraceful manner; and, the board of supervision having declined to interfere, Dr. Hay was obliged to proceed against the parochial board by summoning them in the Sheriff's Court. The sheriff, after hearing both sides, decided that, the engagement being for six years, the parochial board had no right to dismiss a surgeon unless for gross dereliction of duty, which was not even pretended in the present case. He, therefore, decided against the board, and in favour of Dr. Hay.

NICETIES OF LAW.—A young woman of Nendenheim, in Belgium, being in the family way, and feeling herself ill, sought the advice of a physician, who ordered his servant to bleed her. After some hours symptoms of cerebral congestion occurred. The consolations of religion were sought for the young woman, and a priest went to her house. Some minutes after her death he performed the Caesarian operation with a common house-knife, and extracted the child, which lived long enough to receive the rite of baptism. These facts were made known to the procurer du roi, and his instructions sought thereon. The servant of the physician was arranged before the correctional tribunal of Tongres, on the charge of illegally exercising the healing art. As regards the priest, it was decided that the operation performed by him after the death of the patient was neither a crime nor a fault, and was, therefore, dismissed without fine, while the servant for performing the simple operation of bleeding was punished.

SOIREE AT THE COLLEGE OF PHYSICIANS.—On Wednesday evening the College of Physicians gave their annual *soirée*, which was very numerous and brilliantly attended, the Earl of Clarendon having been present. Some interesting papers were read.

OBITUARY.—On the 5th inst., after a long affliction, in the 23rd year of his age, Mr. Frederick Horace Ransom, surgeon, third son of Robert Ransom, Esq., solicitor, Sudbury, Suffolk.—On Jan. 1, at Fintona, of fever, Andrew Allen, Esq., late surgeon, Royal Navy.—On Jan. 9, of fever, Samuel Edward Barnes, Esq., surgeon to the Ballinmore Eustace Dispensary.—On Jan. 11, at Killea, aged 34, of fever, John Chaine Hunter, Esq., surgeon to the Tamelght Dispensary.—On Jan. 23, of fever, Charles Hyndman, Esq., M.B., physician to the Sick-poor Institution, Meath-street, Dublin.—On Jan. 27, of fever, Richard Strong Sargent, M.D., physician to the North Dublin Union Fever Sheds.

NOTICE.

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the office.

TO SUBSCRIBERS.

The subscription for the stamped edition of the *Medical Times* is 15s. for the half-year, and £1. 6s. for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfax.

MORTALITY TABLE.

For the Week ending Saturday, Feb. 5, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1478	1107
SPECIFIED CAUSES.....	1476	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	364	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	45	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	138	188
Diseases of the Lungs, and of the other Organs of Respiration.....	362	225
Diseases of the Heart and Blood-vessels.....	50	39
Diseases of the Stomach, Liver, and other organs of Digestion.....	72	62
Diseases of the Kidneys, &c. Childbirth, Diseases of the Uterus, &c.	11	9
Rheumatism, Diseases of the Bones, Joints, &c.	10	13
Diseases of the Skin, Cellular Tissue, &c.	7	8
Old Age.....	8	1
Violence, Privation, Cold, and Intemperance.....	77	79
	29	31

TO CORRESPONDENTS.

TO CONTRIBUTORS.—We must crave indulgence from several gentlemen whose communications are unavoidably postponed. Our appeal will be the more readily responded to on a glance at the length and value of the original papers this week published, from Mr. Guthrie, Professor Andral, Mr. Wardrop, Dr. Egly, Dr. Simpson, Dr. Gregory, Mr. Corie, and the Army Medical Department. We would particularly direct attention to the importance of the latter document.

"An Observer."—The statements have been fully substantiated before a proper tribunal, and the issue is not doubtful.

"Botanists."—The plants of the genus referred to grow in South America and the West Indies.

"Mr. Wm. Thomas, Holywell."—We are sorry that we cannot comply with the wishes of our correspondent. The reasons will be stated in a private communication.

"Mr. E. Stammers."—1. In the metropolis there are some good chemical teachers, and opportunities are afforded for a student to become a good manipulator. 2. Apparatus are not very expensive. 3. Write to the editor of the *Pharmaceutical Times*.

"Sigma."—The Apothecaries' licence and the diploma of the College must be obtained before a candidate is eligible for an appointment.

"Bridgenorth."—1. The fees are £36. 17s. for the licence in London; the extra licence costs £17. 6s. 2. The president of the College has the power of recommending a physician to Christ Church, St. Thomas's, and St. Bartholomew's Hospitals.

"Mr. T. M."—We cannot interfere in the quarrels of rival practitioners.

"Adolescents" writes us as follows:—"Having a great desire to become a member of the medical profession, I have been studying closely for the last two years the Latin Pharmacopoeia of the College of Physicians, and 'Celsus de Medicina.' I have, however, only one hundred pounds which I can command, and am somewhat doubtful whether this will be sufficient to defray my expenses in walking the hospitals. I should be glad, therefore, if you would kindly inform me what I am to do." We would advise our correspondent to turn his attention to some other subject.

"Pharmacien."—The following process will be found to answer very well:—Digest the root first in ether and then in alcohol. Evaporate the alcoholic infusion to dryness, redissolve in water, and drop in acetate of lead. Wash the precipitate, and then, diffusing it in water, decompose by a current of sulphuretted hydrogen gas. Evaporate the clear solution till a film is seen on the surface of the liquid, and then set aside that it may crystallize.

"A student of St. George's" cannot do better than provide himself with the work of Chelius, translated by South.

"Novus Homo."—The Faculty of Physicians and Surgeons of Glasgow have authority only over four counties. Their diploma does not confer a right to practise the medical profession in England and Wales.

"Mr. Edward Sanders."—The work is out of print, but may occasionally be met with at some of the booksellers in town. The price we do not know.

"A Licentiate of 1834."—A list of the licentiates may be

obtained of the bookseller at the Hall, on application, whose our correspondent can ascertain if the person mentioned is "authorized to practise." We have no time to spare for such a work.

"Delta."—The school is recognised both by College and Hall, and we believe that the teachers are efficient.

"An Old Correspondent, Reading."—The first medical practitioner is entitled to attend the patient.

"M. D., Edinburgh," is thanked for his offer, which we accept.

"B. B."—The sum cannot be recovered in a court of law, as a physician's fee is honorary.

"R. H."—The case being purely surgical, a fair sum for work and labour done can be obtained in the County Court.

"J. J. G." asks, "The Apothecaries' Act having come into operation Aug. 1, 1815, can a person, who had not attained the age of twenty-one until the November following, be considered, by the law, entitled to practise as an apothecary at the present time?" We think not.

"A Subscriber," who asks for the "best receipt of a liquid for dyeing the hair of a dark brown colour," had better apply to the Editor of the *Pharmaceutical Times*.

"A Subscriber, London."—The German degree of doctor of medicine does not qualify the possessor for English medical practice.

"A Licentiate of the London College of Physicians" is not expected to act as his own apothecary, nor does he do so. A physician, when called to attend a patient, usually receives his fee at the time, which is an honorarium. A medical practitioner who prescribes and dispenses his own medicine is liable to a prosecution if he does not possess the Apothecaries' licence.

"Dr. Rich. de Gumbleton Daunt, Campinos, Brazil."—We have received the two communications.

"Esculapius," "On Medical Reform," shall appear next week.

"Mr. Haynes Walton's" paper, "On Adherent Iris," will appear in an early number.

Can "W. G." be serious?

"A Member" should address his letter to Dr. Studdart, Worcester. It is unnecessary to revive the question in our columns.

The letter of "Mr. T. B. H.," "On Sanitary Reform," is too diffuse for publication.

Will "M. D., Southampton," authenticate his complaint against the local authorities?

"D. H., Bristol."—The duties of coroners are now much more defined than formerly, and the summoning the absent surgeon, in the case mentioned, is certainly not one of them.

"A Pupil."—We know of no book so suited to our correspondent as South's edition of "Chelius." While very low-priced, it is the best and most complete system of surgery in our language.

POOR-LAW MEDICAL REFORM.—Several important documents in reference to this subject are unavoidably postponed to our next number.

Letters and communications have also been received from An Observer; Botanists; Mr. Wm. Thomas, Holywell; Mr. E. Stammers; Sigma; Bridgenorth; Mr. T. M.; Adolescents; Pharmacien; A Student of St. George's; Novus Homo; Mr. Edward Sanders; A Member of the National Institute; A Licentiate of 1834; Delta; An Old Correspondent, Reading; M. D., Edinburgh; An Assistant Surgeon, E.N.; B. B.; R. H.; J. J. G.; A Subscriber; A Subscriber, London; A Licentiate of the London College of Physicians; Dr. Rich. de Gumbleton Daunt, Campinos, Brazil; Esculapius; Mr. Haynes Walton; A Member; Mr. T. B. H.; M. D., Southampton; D. H., Bristol; A Pupil; Dr. Henderson; Mr. Steele, Abergavenny; Mr. Storer, Morpeth; Mr. Hayden, High Wycombe; Mr. Pennington, Liverpool; Mr. Trull, Leicester; Mr. Whitla, Balnashinn; Mr. Latter, St. Oystin; Mr. Miller, Ennsworth; Dr. Jones, Chester; Dr. Duncan, Dundee; Mr. Godson, Barnet; Mr. Beedell, Tiverton; Dr. Williams, Caernarvon; Mr. Braid, Manchester; Mr. Whittington, Tuxford; Mr. Thompson, Bideford; Mr. Haldon, Preston; Mr. Allday, Merthyr; Mr. Thorold, Clones; Mr. Parkinson, Liverpool; Mr. Blackburn, Liverpool; Mr. Stevens, Bedford; Mr. Adkin, Cradley; Mr. Thompson, Ramsgate; Mr. Young, Reading; Mr. Adye, Bradford; Dr. Headle, Tewkesbury; Mr. Jenkins, Bristol; Mr. Davey, Walmer; Dr. Dalton, Carlisle; Dr. Owen, Beaumaris; Dr. Gardiner, Cliffe; Mr. Barry, Cahirciveen; Mr. Cartwright, Dudley; Mr. Ball, Spalding; Dr. Craine, Paris; Mr. Thornhill, Darlington; Dr. Belcombe, York; Mr. Bagg, Louth; Mr. Sadler, Sharnington; Mr. Peck, Newmarket; Mr. Brickwill, Sawbridgeworth; Mr. Evans, Widcombe; Mr. Moore, Beaton-on-the-Water; Mr. Thelwell, Farndon; Mr. Monday, Olveston; Mr. Mason, Burton-on-Trent; Mr. Conway, Bury; Mr. Alsop, Uttoxeter; Dr. Saunders, Southsea; Mr. Atkinson, Kilham; Mr. Overton, Castle Rising; Mr. Lovett, Royston; Mr. Clifton, Welwyn; Mr. Barker, Hungerford; Dr. Harcourt, Chertsey; Mr. Frame, Comber; Mr. Bramwell, North Shields; Mr. Robinson, Over; Dr. Drysdale, Liverpool; Mr. Hardman, Eckington; Mr. Spencer, Aylesbury; Mr. Arnison, Haydon-bridge; Mr. Souther, Cambridge; Mr. Kersey, Siblebourn; Mr. Dalglish, Bedale; Mr. Niblett, Bury; Mr. Irving, Lock-erby; Mr. Curtis, Alton; Dr. Smith, Patrington; Mr. Waddell, Bristol; Dr. Farrar, Bradford; Dr. Hutcheson, Spiddals; Mr. Tiffen, Wigton; Mr. Gosling, Hoo-creath; Mr. Wales, Ferrybridge; Mr. Howden, Fleet-wood; Mr. Holtam, Canterbury; Dr. Hall, Eastbourne; Mr. Langton, Southfleet; Mr. Duckworth, Addingham; Mr. Latham, Sandbach; Mr. Godfrey, Turvey; Mr. Lane, Sibley; Mr. Snowden, Ramsgate; Mr. James, Conway; Mr. Alecock, Birmingham; Mr. Stevenson, Gateshead; Mr. Florence, Portland; Mr. Nott, Mere Regis; Mr. Thornhill, Mountmelick; Mr. Booth, Sheffield; Mr. Broughton, Dobcross; Mr. Radcliffe, Leeds; Mr. Devey, Killybegs; Mr. Busby, Leamington; and Mr. Leonard, Bristol.

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SUMMARY.

FEB. 19.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S., Surgeon to the Royal Westminster Ophthalmic Hospital. Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

LECTURE III.

ON WOUNDS AND INJURIES OF THE CHEST.

The changes in the structure of the lung from pneumonia, engorgement, hepatization, and purulent infiltration; occurrence and seat of the respiratory murmur during the presence of pleuritic effusion; great necessity for attending to this fact in pistol-shot wounds of the chest; greater frequency of inflammation in the right lung than in the left; treatment of pleuritis and pneumonia; bleeding; practice of Dr. Gregory, and Dr. Rutherford of Edinburgh; aphorism of Laennec; illusory character of the pulse as a guide for bleeding; opinion of Laennec; Mr. Guthrie's early experience of the efficacy of bleeding in pleuro-pneumonia, at Berry Head, and in British North America; directions for bleeding; opinions of the French physicians respecting bleeding in pleuritis and pneumonia; application of leeches; cupping; internal use of tartar-emetic in pneumonia; tolerance of tartar-emetic in large doses; when of doubtful utility; use of mercury in serous inflammations; mode of exhibiting mercury in large and small doses; comparative value of mercury and tartar-emetic; blisters; diet; critical terminations of pneumonia.

The changes which take place in the structure of the lung in pneumonia were first accurately described by Laennec; they have been not less ably investigated by Andral, and commented upon by a host of others of all nations, who have followed in their footsteps, with equal interest and not inferior ability. They are three in number. I. Engorgement, the engorgement of the French. II. The hepatization of Laennec, the red softening of Andral. III. The purulent infiltration of both. The formation of an abscess or vomica, and the occurrence of gangrene, are so comparatively rare in idiopathic pneumonia, that they may be omitted without inconvenience, as well as chronic disorders of long continuance, or malignant complaints, in the views about to be taken of disease from injury.

I. In engorgement, or the first stage of inflammatory obstruction, the lung has assumed externally a livid red or violet colour. It is heavier and firmer than in its healthy state, and the natural feeling of crepitation, although greatly diminished, is not extinct. The lung retains the impression of the finger, and pits on pressure as if it contained a liquid, although air-bubbles can yet be distinguished in it, and its cellular or spongy texture is still to be observed. On cutting into it a quantity of sanguineous or turbid fluid flows from it, mingled with numerous minute air-bubbles. In some places the colour of the incised surface is darker,

and more compact, showing that some progress has been made towards the stage of hepatization. It nevertheless tears with greater facility than in a healthy state, although this is in some measure common to it, when loaded with blood by gravitation without active inflammation. Dr. Henderson, in "The Monthly Journal of Medical Science" for Sept., 1841, was led from the use of the microscope to differ on this point, and to suppose that inflammation could be always distinguished from congestion, as, in inflammation of the air-vesicles, a careful examination of the fluid pressed out of the small bronchial tubes, after washing the cut surface, always showed minute white specks, which under the microscope appeared to be globular, if not granular.

The second stage is the red softening of Andral, the hepatization of Laennec; the latter term being in most common use, from the lung assuming somewhat the appearance of the liver in solidity and weight. It does not crepitate, no air-bubbles pass out of it, but a thick bloody fluid exudes on pressure, and it sinks for the most part in water. The colour is somewhat less red or violet than in the first stage, and lighter and more varied in colour when cut into; the openings of the larger vessels and of the bronchi, when cut across, are observed as white specks, the interlobular tissue is thicker and more marked in lines running in different directions, whilst many little granular points can be discovered, especially with a glass, apparently of a more solid material than the surrounding parts. These granular bodies were supposed by Andral and Laennec to be the air-cells converted into solid grains, by the thickening of their walls, and by the obliteration of their cavities by a concrete fluid. Messrs. Hourman and Dechambre, and Dr. Williams, differ in opinion on this point.

The word solidity, or solidification, is not quite applicable to the lung under any circumstances, although it is sufficiently explanatory in contradistinction to the naturally pervious and crepitating state of that organ. Andral is disposed to believe, and Dr. Stokes to agree in the opinion, that hepatization arises from an excessive congestion of blood, and not from any deposition of lymph. It is not easy, however, to understand, in the present state of our knowledge, how acute inflammation can go on in that part alone for three or more days without secretion and deposition being added to congestion, although the validity or invalidity of the opinion may not be matter of importance. That hepatization, or impermeability to air, may take place in the typhoid pneumonia in twenty-four hours, and that it as suddenly seems to be removed, is hardly conclusive, as it shows merely that a thoroughly well-loaded lung ceases to be permeable to air, until a part of the load shall have been displaced.

When the lung, inflamed to the second stage or that of hepatization, is about to be restored to a state of health, a slight crepitation or crackling begins again to be heard at the end of each inspiration, and as this increases (the rhonchus *crispitans* redux of Laennec) the bronchial respi-

ration and voice gradually, or after a time, diminish, until they entirely disappear, whilst a mucous rale or rattle commences, the index of that free expectoration by which pneumonia usually terminates.

Dr. Macdonnell, in a paper published in "The Dublin Journal of Medical Science" for Jan., 1846, expresses his doubts, however, of the dry crepitus, heard in pneumonia, being pathognomonic of inflammation, unless accompanied by other symptoms, such as dulness, difficulty of breathing, cough, rust-coloured expectoration, flushed countenance, anxiety, quick pulse, and other febrile symptoms; and he has been led to think so from finding such crepitation or crackling occur on a forced respiration, without any other sign of disease accompanying it, after pleuritic effusion, when the patient was fast recovering, in which case he did not consider it to be a sign of inflammation returning, but of the air-cells of the part becoming permeable to air, although still partly infiltrated by serum, the result of the congestion which had previously taken place, and which crackling passed away without any particular treatment.

The third stage of morbid change is called purulent infiltration. The lung is of a lighter colour from the intermixture of a new matter in its substance, although in the first degree it preserves its firmness and granular structure. The new secretion is of an opaque, straw, or yellow colour, and puriform in its nature. This is discoverable more particularly in spots, but as the disease proceeds, it pervades the whole substance of the lung, which becomes softer and more moist, and is easily broken down by the fingers, the granular structure having disappeared. It is more or less a purulent sort of sponge, in which all of the lung that can be perceived under a strong light may be resolved into small blood-vessels, bronchial tubes, and interlobular septa.

Dr. Henderson thinks that the microscope shows that the grey hepatization, or the third stage, is not so much a stage of true suppuration, as of infiltration with mucus into cells, which have not yet advanced to that purulent condition which they are supposed to attain in the ultimate stage of their mutation, if the inflammation should continue unabated, or the patient live so long.

These three degrees or stages of inflammation may be met with in the same lung, for the most part gradually intermingling one with the other. The lower part of the lung, being ordinarily first affected, is usually the seat of the purulent infiltration of the third stage, whilst in the tubercular affection which ends in phthisis the disease commonly begins in the upper part.

Resolution or recovery from even this, the last of the morbid changes which have been observed, may take place, although it is less likely to do so after idiopathic than traumatic inflammation, in which the lung was previously healthy and the constitution unimpaired.

Laennec thought that when a considerable effusion took place in pleuro-pneumonia, filling

the posterior part of the chest, when the patient lay on his back, it nevertheless diffused itself over the whole surface of the lung. This has been disputed, particularly by Piorry, Reynaud, and others, and I am satisfied from dissection in cases of wounds, that the fore part of the lung may be applied to the anterior part and sides of the ribs whilst a serous effusion fills the hollow behind, the respiratory murmur being distinctly heard above it. It occurred in the well-known case of Mr. Drummond, killed by M'Naughten; and it is a most important fact to ascertain, particularly in pistol-wounds of the chest, in which the opening is not sufficiently large to allow any fluid effused to run out. Laennec, however, admits that the respiratory murmur can always be heard near the vertebral column, opposite the root of the lung, even when the lungs are so compressed by the effused fluid as to be scarcely discoverable, and that it may be heard below the clavicle when the quantity thrown out is moderate. Whenever it can be heard in these places only, it may be supposed that the quantity effused is considerable; although Laennec believed that the substance of the lung became impervious to air whenever it was compressed to the extent of one-fourth; but that after a time the lung, becoming habituated to this pressure, readmitted the air, and that respiration could be distinguished in places without any diminution of the effusion. Great and sudden effusions usually take place in elderly persons, or in adults of a bad habit and weakly constitution; and whenever they do occur, the defective respiration, which may be even null, is not accompanied by the crepitating rûle, which marks under auscultation the first stage of pneumonia. By percussion the resonance is always dull.

With respect to the greater frequency of pneumonia on one side than the other, Lombard has stated, in the "*Archives G n rales de M decine*" for 1831, that of nine hundred and sixty-eight patients treated with pneumonia, by Messrs. Chomel, Andral, and himself, one hundred and ninety-five had disease in both lungs, two hundred and sixty in the left, and four hundred and thirteen in the right; so that for four hundred and fifty-five attacks on the left, there are six hundred and seventy-three on the right, which he attributes to the great size of the branch of the pulmonary artery sent to the right lung. He considered that pneumonia occurred more frequently in infancy and in old age, than in the middle period of life.

In the treatment of pleuritis and pneumonia, the first and most essential remedy is bleeding, which should be resorted to in every case, whenever the febrile excitement is really inflammatory. All old people under such circumstances, unless in a cachectic state, bear at least one bleeding well; they often bear more. I know no fact more important, and none which my experience has so amply confirmed, in opposition to the opinions commonly entertained on this subject. In young people, the bleeding should be repeated until the desired object is effected; and the quantity required to be drawn in inflammations, particularly after injuries, is often very great. It is almost a question, in some cases, whether the patient shall be allowed to die of the disease, or from loss of blood. Dr. Watson reports in his lectures "that the late Dr. Gregory, of Edinburgh, who had northern constitutions to deal with, was in the habit of saying, that, provided he was called early to a case of pneumonia, he would be contented to dispense with all other aids than those of a lancet and water-gruel." It was said that "he used to bleed to the verge of convulsions, but that his colleague, Dr. Rutherford, seldom went beyond three bleedings, and generally accomplished his object by two, judiciously timed and regulated. His patients recovered quickly: Dr. Gregory's very slowly." I have some doubts of the accuracy of this statement. Dr. Gregory, perhaps, saved the lives of persons who would have died under Dr. Rutherford; and their recovery was, of course, effected slowly. If it were otherwise, all that can be said is, that Dr. Gregory was a bad

practitioner, who repeated his bleedings without paying attention to the presence or absence of those symptoms which rendered them necessary, or their repetition inadvisable. The aphorism of Laennec, on this point, should never be forgotten:—"Convalescence is rapid in proportion as the inflammation is of a small extent, and has been early subdued." As the first stage of pneumonia only lasts from twelve hours to three days before it passes into the second, and the second from one day to three before matter begins to be deposited, no time is to be lost to prevent these evils taking place, if the patient is to be saved without incurring a risk, from which few escape with health, even if life be ultimately saved. Bleeding in inflammation of the pleura, in young and healthy persons, should, therefore, be effected in a very determined manner, and with an unsparing hand, until an impression is made on the system—until the pain and the difficulty of breathing are removed—until the patient can draw a full breath, or faints; and the operation should be repeated, from time to time, every three or four hours, according to the intensity of the recurrence, or the persistence of the essential symptoms. The pulse does not often indicate the extent or severity of the inflammation, although it often expresses the amount of constitutional irritability of the person. It is sometimes exceedingly illusory as a guide, and is never to be depended upon in the earlier stages of disease, when accompanied by pain and great oppression of breathing. In the latter stages, the dicta of Laennec should be strictly attended to. He says:—"Whenever the pulsations of the heart are proportionally much stronger than those of the arteries, we may bleed without fear, and with the certainty of finding the pulse rise; but if the heart and pulse are both weak, the abstraction of blood will almost always occasion complete prostration of strength;" a remark of the greatest practical value, and one which should never be forgotten. In healthy young persons, in the acute stages of disease, a large and successful bloodletting is usually followed by an augmentation of the size of the pulse, and oftentimes by a diminution of its frequency.

In the year 1801, I found myself, not seventeen years of age, in charge of a regiment of infantry, on the top of the Berry Head, the outermost point of Torbay. The men were soon attacked by pneumonia. I had been taught the practice of phlebotomy in London—had followed, among other avocations, the late Drs. Rowley and Hooper for three years, and, in consonance with their views, bled my patients three and four times in the first forty-eight hours. I first drew sixteen ounces, then fourteen, then twelve, then abstracted, as the complaint continued, eight ounces; gave tartar-emetic, so as to keep up nausea; then calomel, antimony, and opium, and lost my patients. True also to the precepts I had learned, I examined the bodies of them all, and found that they had lived to what is now called the third stage of pneumonia, combined in almost all with pleuritis, with effusion, and the formation of false membranes. The disease was essentially a pleuro-pneumonia, varying in different degrees, as the pleura or the lungs were principally affected. Discouraged by my failures, I reconsidered every case, and saw that, however systematically I had acted, the disease had not been arrested in any one of them. In fact enough had not been done. Recollecting what I had been told of northern constitutions, and of country practice, I determined that in future, they should die of the bleeding, and not from excess of inflammation. I then took away on each occasion, as much more blood; my sixteen ounces became from twenty to thirty. It would not do. I arrested the rapid course of the disease, but did not effectively subdue it. It was evident that, to succeed, I must place no limit to the abstraction of blood in the first instance, but the decided incapability of bearing its further loss. The men were all young, and in high health; the winds were sharp and cold at night; and smuggled gin was cheap,

strong, and plentiful. I, therefore, bled every man when he came into the hospital, until he fainted, and repeated it every four hours, or even oftener, as long as pain or difficulty of breathing remained; and they, sooner or later, all recovered. Every one, however, had taken alarm. Some said I had killed my patients with physic—others, that I was now bleeding them to death; and the officer commanding had determined on writing to London to ask for a better or more experienced doctor—as I afterwards learned—if another death was reported on the following morning. It did not occur, and I soon became in good repute. (a)

The young doctor, as I was called (the two lieutenant-colonels—one the late Lord Frederick Montagu, the other the present Lord Strafford—were only twenty-three and twenty-two), instead of being dismissed, on account of his youth, was declared to be a very useful person—a reputation I carried with me to Portugal in 1808, and which early placed me in that position in the Peninsula which enabled me to avail myself of those opportunities which have led to my now addressing you. The lesson learned at Berry Head was not forgotten during the five subsequent years passed in British North America. The men were as healthy, the winds were sharper and colder, the vicissitudes of all kinds greater. Rum was even cheaper, newer, and stronger than the gin of Torbay. The local inflammations were often as severe, whether of the pleura, or of the lungs, and by no means less so in cases of inflammation of the bowels. One of the first of these I had to treat was in a grenadier, some six feet three inches high, broad and well-framed in proportion; he owned he had drunk a gallon of rum during the afternoon, and very narrowly escaped, even with the loss of nearly as much of his blood, abstracted in a few hours. His first bleeding was into the wash-hand basin, and until he fainted, lying on his back, and the bleedings were repeated as soon as he again began to feel pain. I said to him, you will probably die, but it shall not be from rum or inflammation; and whenever he felt pain he used to put his arm out of bed to have the vein reopened, for Jack Martin was a very gallant fellow. I have given this not as an ordinary but as an extreme case, to be borne in mind under circumstances somewhat similar, and particularly after injuries. In common cases of pleuritis and pneumonia in healthy persons, and particularly in pleuritis, it is now usual in this country to abstract blood, not by definite quantities, but until the pain and the difficulty of breathing are relieved, or fainting is about to take place. The patient should be raised in bed, the opening in the vein should be large, the flow of blood free. The quantity will vary from sixteen ounces to three times that amount in different people; but

(a) Dupont says that Louis, the brightest star of the Royal Academy of Surgery of Paris, in 1743, had so distinguished himself with the army of the Rhine, as to have merited, and obtained, the rank of a surgeon-major at twenty years of age. He distanced me by a year on this point, as I fear he did by more than that on most others. Cheselden publicly taught anatomy at twenty-three; but, unhappily, the brains of men have become so thick since the days of Cheselden and of Louis, that they are now found only fit to have their competency inquired into at the age of twenty-five or six. Alexander von Humboldt says in his "*K smos*,"—"The quiet which we (the earth) enjoy is only apparent; the tremblings which still shake the surface in every latitude, and in every species of rock—the progressive elevation of Sweden and the appearance of new islands of eruption—are far from giving us reason to suppose that our planet has reached a period of final repose." It is to be hoped that the changes which may take place in physic and surgery, as well as in our globe, during the next century, may not extend the period of study from five-and-twenty years to thirty, unless another ten years can also be added to the usual term of human existence.

the important point is to repeat it as soon as the pain or the difficulty in breathing returns. It rarely happens that one bleeding, to whatever extent it may be carried, will suffice to remove the symptoms: and recurrence must be had to this remedy as often as the pain and oppression require it, and the action of the heart will bear it, especially during the first two or three days. It will often be necessary to have recourse to it in smaller quantities for the next four or six days; and again in a less quantity on any return of the inflammatory symptoms. Where the patient is apt to faint, he should be bled in the recumbent position; and, as it is necessary at first to take away a sufficient quantity of blood to relieve the loaded vessels, great care should be taken by arresting the flow of blood for a time, by giving stimulants, by admitting fresh air, and sprinkling with cold water, to prevent syncope, which is sometimes dangerous in elderly persons, who may be subject to, and who are not readily recovered from, it. In the second stage of the complaint, profuse and repeated bleedings do not answer so well; they do not remove the evil which has occurred, although they may prevent its increase. Blood should then be drawn in such quantity only as will relieve the action of the heart, restless under its efforts to propel the blood through a hepatized lung. The quickness of pulse, the cough, the difficulty of breathing, must now be aided and relieved by other means; for although the pulse is not a certain indication, on which dependence can be placed in the early stage of this complaint, the breathing generally is; and, as long as the respiration is oppressed, blood should be abstracted, until it becomes manifest that the effect has been to quicken the pulse, whilst it materially diminishes its power.

On the subject of bleeding, there is a marked difference among French physicians. Whilst Laennec and Andral advocate its repeated use, confining the quantity to four or five cups, of four ounces each, twice a day, Louis (a) is less favourable to its employment. He considers its influence to be much less than is commonly supposed; that it will not cut short a pneumonia during the first days of the disease; and that those who are bled in the first four days of the disease are only cured four or five days sooner than those who are bled at a later period:—conclusions which, however correct they may be in the class of patients he had to treat, will certainly lead, if relied upon in cases of wounds of the lung, to the destruction of the individual. The opinions of Louis, supported as they have been by Trousseau, have not maintained their ground in France. They have been stoutly met by Bouillaud, by Jules Pelletan, and others, who acknowledge the influence of bloodletting, not only in cutting short, but even in curing this disease. Bouillaud, whose authority is great in France, gives the following as an example of his mode of proceeding in a moderately severe case: "1st day. Morning sixteen ounces, evening twelve ounces. In the interval twelve ounces to be drawn locally by cupping or leeches. 2nd day. V.S. ad 3xvj.; local bleeding, if pain continues, by leeches or cupping. 3rd day. If disease permit, another bleeding, although it is usually cut short on this day. 4th day. If the disease should attain to the second stage, another venesection may be resorted to, but it is in general best to abstain from it, and apply a blister. As a general rule, however, the abstraction of blood should not be refrained from until the febrile action is removed or nearly so, until the dyspnoea and the pain have nearly disappeared; and this rule admits of very few exceptions. On the whole, four or five pounds of blood may be drawn in the case supposed above."

A cupped and buffy state of the blood, together with a firm coagulum, is a satisfactory proof of the propriety of bleeding in this stage of the disease; but after the effect of mercury on the system has been produced, it cannot be depended upon with the same degree of certainty as a sign

of power. When the propriety of further venesection is doubtful, the greatest advantage may be obtained from the use of leeches and from cupping, particularly in cases of injury of the chest. Leeches may be applied by tens and twenties at a time; and when they have ceased to bleed into a warm bread-and-water or evaporating poultice, they may be replaced by as many more, until the pain and the oppression have been removed. Cupping is always to be had recourse to when leeches cannot be obtained, and, when well done, it is frequently to be preferred; cupping to sixteen ounces will usually be found equivalent to forty or more leeches. Both these means often relieve to a greater extent, with less general depression, than the smaller quantity of blood taken from the arm, and are, therefore, at such times more advisable. When blood cannot be obtained from the veins, the arteries must furnish it, and I have often opened both temporal arteries with the best effect, when blood could not be obtained from the arm, or readily from the external jugular vein.

The effects of bleeding were of old found to be different under different circumstances and in different climates. Asclepiades remarks that, whilst phlebotomy was fatal at Rome and at Athens, it was beneficial in the Hellespont. Nevertheless, at a much later period, Baglivi says, "In Romano, phlebotomia est princeps remedium in pleuritide."

The internal remedy first to be administered, and most to be depended upon, in the first stage of pneumonia is tartar-emetic. Dr. Rowley always ordered, in my early days of studentship, four grains to be dissolved in sixteen ounces of water; two ounces to be taken every two, four, or six hours, according to the urgency of the complaint, and the effects of the remedy in causing nausea; and I am not aware that I ever treated an inflammation of the lungs without it. The merit of introducing this remedy, however, into practice has been given to Dr. Marryatt, of Bristol, who published in 1790. Rasori, of Genoa, was the first who endeavoured to explain its action when given in a larger quantity, and certainly establish it in general practice on the Continent. Laennec, Andral, and all succeeding writers have borne testimony to its utility. Laennec gave a grain of tartarized antimony every two hours until the patient had taken six grains, when it was omitted for seven or eight hours if the symptoms were not urgent. If, however, the symptoms of disease were distressing, he did not intermit its use, but gradually increased the dose to two grains and a half, until not only the intensity of the symptoms, but of the stethoscopic signs, had been greatly subdued.

As tartar-emetic usually gives rise to vomiting, then purging, and possibly sweating; it should not be omitted, because such effects are produced in the first instance. After a few, perhaps three or four, doses the vomiting usually ceases, the stomach tolerates its introduction, and its gradual increase from six to nine, twelve, twenty, or more grains a day, is often borne not only with impunity, but with great advantage. Vomiting and purging, although often followed by the most beneficial results, are not desirable, as the effects of tartar-emetic are more rapid and more beneficial, when they give rise to no particular evacuations beyond that of general perspiration. The most valuable remark of Laennec (a) on its use, is, "that by bleeding we almost always obtain a diminution of the fever, of the oppression, and of the bloody expectoration, so as to lead the patient and the attendants to believe that recovery is about to take place; after a few hours, however, the unfavourable symptoms return with fresh vigour; and the same scene is renewed often five or six times after as many venesections. On the other hand, I can state that I have never witnessed

these renewed attacks under the use of tartar-emetic." He further says that the same favourable results do not occur from its use in pleurisy, or in inflammation of serous membranes, as in pneumonia; and suggests its administration in a slightly aromatic infusion, such as that of the orange leaf, or sweetened emulsion, to render it agreeable to the stomach, or in conjunction with a little syrup of poppies, or a few drops of tincture of opium, when it purges. Dr. Williams recommends a drop of hydrocyanic acid with each dose, for the same purpose.

It is a remedy of doubtful utility when the disease or pneumonia is from the first combined with irritation of the mucous membrane of the bowels, or with general tenderness of the epigastrium, or whole of the abdomen. It is not to be depended upon alone for the cure of pneumonia, not even when combined with small bleedings; and the dicta and the facts of Laennec have been doubted on this point by his brethren. M. Leconteux, aide de clinique in the Hôpital la Charité, and who followed for twenty years the practice of Corvisart Leroux, makes the following remarks on the mortality which took place under the treatment of Laennec:—"I was particularly struck by the very great difference in the mortality of the pneumonias which were treated by large bleedings, when compared with that of those which were treated by tartar-emetic and small bleedings. Incomparably fewer deaths occurred among the former; and the convalescence was much quicker, taking place about the ninth instead of from the fifteenth to the twentieth day." It is probable that the practice of Drs. Gregory and Rutherford, formerly alluded to, might have been better understood, if reference had been had to the mortality as well as to the recovery of any given number of cases indifferently chosen. The sovereign efficacy attributed to tartar-emetic by Laennec and Andral has also been doubted by Pelletan, who, commenting on the practice of Bouillaud at the Charité, and which the latter admits in 1835, says:—"I have not seen this medicine more efficacious when tolerated by the stomach than when it vomited or purged violently, neither have I seen it exert any decidedly advantageous influence on inflammation of the lung, bleeding being, after all, the really heroic means of combating it. Nevertheless, its great utility in lowering inflammatory action cannot be doubted."

Mercury is a remedy of the greatest importance in serous inflammations such as pleuritis, although of less value than tartar-emetic in the first stage of pneumonia, than which it would appear to be more efficient in the latter period of the stages of hepatization and infiltration, though some physicians agree with Laennec, and place entire confidence on its efficacy in all. It is of most value when combined with opium, in which form I have always used it with the greatest advantage. Upon the precise importance or value of each of these remedies there is a difference of opinion, some supposing that the opium merely prevents the irregular action of the mercury, others, as far back as 1801, believing that the opium has a distinct curative effect, being capable when given in large doses of subduing inflammation, and more particularly of allaying pain, relieving the cough and irritation, and of procuring sleep; in which opinion I fully concur. Opium is highly advantageous in irritable and nervous persons, and will frequently relieve the nervous pain, the pleurodynia which remains after pleuritis, when nothing else succeeds. Calomel in large doses is usually preferred to all other forms, but a difference of opinion has here also occurred as to what is a large dose, whether two, three, four, six, ten, or twelve grains are large doses, and whether they should be given every one, two, three, six, or twelve hours. It has been attempted to reconcile this difference of opinion, by supposing that in sthenic or highly inflammatory cases in healthy persons, from three to six and even twelve grains may be given twice or three times a day, with better effect than smaller ones more frequently repeated.

(a) Louis, "Archives Générales de Médecine," livre xlvii.

(a) See Laennec, 4th edition, translated by Dr. Forbes, and the valuable note of the translator, vol. 1, page 244.

If after bleeding the pain is considerable, whilst the pulse is weakened, twice that quantity or even more may be administered with advantage. Mr. Boyle, a surgeon of the navy, was the first to recommend a dose of twenty grains at night as a sedative. In cases less sthenic or complicated with gastric derangement, the fever assuming more of a general than of an inflammatory character, the excretions being vitiated, the skin dry and hot, and the tongue loaded, from gr. jss. to gr. iij. of calomel, combined with three grains of Dover's powder, may be advantageously given every second or third hour. All, however, agree that the great object is to affect the gums as quickly as possible. This unfortunately is not effected in some cases by any of the quantities given until after a considerable lapse of time, whilst in others it is accomplished by less than half a dozen grains of the remedy. I am not disposed to believe that twenty-four or forty grains given in two or four doses in twenty-four hours will affect the mouth more rapidly than three grains every two hours for the same time, neither am I aware that it is less liable to cause irritation; whilst the third or half a grain of opium given every two hours seems to keep up the effect of that remedy with great advantage. I do not think it signifies much which method is adopted in strong and healthy persons, although the more frequent doses are most satisfactory to all parties when the patient is weak and irritable, whilst the large and less frequent doses often excite great apprehension. It is argued by Drs. Graves and Hudson, of Dublin, that calomel in large doses never causes the dysentery of the severe pytalism produced by smaller doses; that it acts more quickly, and that, after giving twenty grains and repeating it in six hours, any other medicines may be given without interfering with it, although the strictest attention must be paid to diet, generally confining it to very small sups of warm whey. I regret to say I cannot concur in this opinion without considerable reservation, having lately given to the students at the Ophthalmic Hospital the opportunity of seeing that very serious derangements do follow the exhibition of the large as well as of the small doses, inasmuch as it is impossible to know beforehand what quantity will cause a severe salivation or diarrhoea which it may be difficult to arrest.

I have rubbed mercurial ointment all over the body several times a day in cases of tetanus, without producing any effect whilst the patient lived; this mode of proceeding can only be auxiliary; although the good effect of mercury is often visible before the gums become sore, an object which should always be attained if any symptoms of disease remain.

It may be concluded, that of the two heroic internal remedies, tartar-emetic and calomel, recommended for the cure of inflammation of the chest, tartar-emetic, or tartarized antimony, the antimonij potassio-tartaras of the Pharmacopoeia of London, is the more appropriate for inflammation of the lungs or pneumonia, provided it is not accompanied by symptoms of gastric inflammation, when its use should be, for a time, superseded by leeches, if necessary, to the epigastrium, and saline aperients, lest the irritation, vomiting, and purging should increase the evil. But care must be taken that one inflammation shall not be allowed to increase, whilst attention is principally paid to the other, and symptoms of irritation, the gastro-enteritis of Broussais and the French physicians, are not to be mistaken for gastritis. Mercury, in the form of calomel, or chloride of mercury, is more to be depended upon in inflammation of the serous membrane of the pleura, over which, as well as over inflammation of similar membranes in other parts of the body, it exercises a remarkable influence.

Blisters are never useful during the continuance of acute inflammation of the chest, although their use is indicated when the patient is much exhausted, the pulse weak, and the breathing continues difficult; or in cases in which the disease proceeds slowly, or is becoming chronic, when they often do much good.

Continental practitioners apply them as derivatives to distant parts, a practice not usually followed in this country in any stage of acute inflammation of the chest. The same may be said of dry-cupping, mustard poultices, and other cutaneous rubefacients, which often do much good in the commencement and termination of slight attacks, or of their supervention on chronic disease, as after injuries.

In the acute stages simple drinks only should be allowed. As soon as the inflammatory action has subsided, the lightest farinaceous nourishment, gradually augmented by the addition of broths, jellies, eggs, fish, and lastly animal food, should be substituted. The temperature of the room ought to be moderate and equal.

Inflammation of the lungs frequently terminates by the deposition of a white or lateritious sediment in the urine, which is considered a critical evacuation, not, however, to be relied upon, unless accompanied by a remission of the important symptoms. After this urinary deposition, a moderate diarrhoea and profuse perspiration are the most favourable signs of a crisis.

CLINICAL LECTURE ON SOME DISLOCATIONS ATTENDED WITH REMARKABLE CIRCUMSTANCES.

By JOHN F. SOUTH, Esq.,

Surgeon to St. Thomas's Hospital.

VARICOSE SAPHEOUS VEIN CURED BY SPONTANEOUS INFLAMMATION.

Thomas Corlett, aged thirty-seven, sailor, admitted into Isaac's Ward, Jan. 11; a healthy, wiry man. About twenty years ago, whilst at sea, was attacked with severe cramp in the left leg, and shortly after the whole saphena major vein became varicose up to the knee; and at the falciform edge of the fascia lata a soft lump appeared about as large as a pigeon's egg, which could be emptied on slight pressure; and, this being continued, the veins between the lump and the knee swelled and became prominent; but when the pressure was withdrawn, the swelling in the groin returned and the veins ceased to project. He has not suffered material inconvenience till very lately, and did not do anything for the relief of the vein. Last month he was in Edward's Ward for some medical ailment, and, having recovered from it, left the house on Christmas-day. Five days after, the vein, about the middle of the calf, on the inside of the leg, became swollen, inflamed, and hard. A large knot of veins on the inside of the head of the tibia, near the insertion of the ligament of the patella, also swelled to the size of half a goose's egg, became much inflamed, and threatened an abscess. In course of the two or three following days the vein above the knee also swelled and inflamed. For these he applied two leeches twice, and a poultice, which afforded relief; but the inflammation of the vein continued creeping up the thigh, and at last attacked the swelling in the groin, which became hard, and could not be emptied.

When admitted, the whole track of vein from near the ankle upwards, and the swelling in the groin, were much enlarged, firm, and hard, as if the blood had perfectly coagulated in them. There was a little redness over the vein on the calf, also on the head of the tibia, and in patches on the track of the vein in the thigh, and also on the swelling in the groin. The pain, which has not been much, is now subsiding, but there is still tenderness.

He was ordered to keep his bed, and apply an evaporating lotion of water, acetated liquor of ammonia, and spirits of wine, to the leg.

15. By some accident the lotion has not been used. The inflammation has, however, almost entirely subsided, as also the tenderness. The bulk of the veins is diminished, but they are quite hard, and there is certainly no flow of blood through them.

18. The inflammation has entirely subsided, and there is now only a little tenderness above

the inner condyle. The bulk of the veins still diminishes, and now scarcely anything is to be observed in the thigh, though with pains-taking the track of the vein can still be felt. The lump in the groin is also smaller.

24. Tenderness entirely subsided, and the hardened track of the vein scarcely to be felt; the swelling in the groin less.

31. The absorption of the clot in the vein seems now complete; with some difficulty the course of the vessel may be traced; there is not, however, any hardness, and it does not seem to contain any fluid; probably, therefore, its tube is obliterated; the lump in the groin is scarcely perceptible to the eye or to the touch.

Feb. 1. Went out cured.

REMARKS.

This is a very interesting and, to me at least, a very remarkable case; for although such, not very numerous indeed, are reported, I had never seen its like. I should be very little worthy of trust, did I claim any credit for its successful issue, as I did nothing except abstaining from interference with the constitutional processes going on, and by which the cure was effected. The *vis medicatrix naturæ*, as in this case it may be most truly called, was the sole agent, and, if you please, I was a humble "waiter on Providence," and I trust not an unobservant one. I did not attempt to meddle, I only watched; and the result was at least as satisfactory, if not more so than any treatment I might have adopted would probably have been. The case teaches those engaged in the healing art, that most important lesson, too often forgotten, that they should consider themselves as aids to Nature, and be well content with such service, rather than to endeavour to drive her, according to some crude notion or other they may have taken up without full consideration of the circumstances of the case.

In the history of this case there does not at first sight appear any sufficient reason for the obstruction of the flow of blood through the veins of the leg. Had the patient been a female in a pregnant state, the pressure of the teeming womb upon the brim of the pelvis might have hindered the passage of the blood from the lower limbs into the vena cava inferior; or had there been glandular enlargement within the pelvis or at the groin, such obstruction might have happened. But, as the patient was a male, the former could not have occurred, and of the latter there was not any evidence.

There remained then only two other possible causes: one, a yielding condition of the coats of the vein—a condition which, in reference to the whole vein, I very much doubt under any circumstances; the other, an obstruction from some temporary cause which might or might not be sufficient to delay, or even prevent, the return of the blood through the veins of the leg, and which, as the superficial veins have less support than the deep-seated femoral vein, would gorge them with blood, perhaps burst their internal lining coat, and thus produce the varicose condition. This temporary obstruction could be easily produced by the lodgment of feculent matter in the sigmoid flexure of the colon. And, although on the present occasion the patient did not mention having suffered inconvenience from this cause, I think it not improbable that there was such obstruction from the collection of the refuse of the hard biscuit, on which sailors are largely fed, in this part of the colon. That such collections do occur in this bowel I am sure, for on repeated occasions I have known a person, after eating Lémann's biscuit, to have on the following day a sense of weight in the left iliac pit, and a continual aching down the fore and inner part of the thigh to the knee, which has not ceased till the intestine had been thoroughly cleared by castor oil. I presume, therefore, that some lodgment of this kind may have in this patient's case been the cause of obstruction to the return of blood through the iliac vein, and the promoter of the varicose state of the superficial veins of the leg.

The occurrence of the soft lump at the falciform

form edge of the fascia lata is, as far as I have had opportunity of observing, rare. I have seen but a single instance of it besides, in a patient in this house, under the care of my colleague, Mr. Mackmurdo, some two years since. The swelling in that case was about the size of half a pigeon's egg, was considered to be an enlargement of the femoral vein, and occupied the place of femoral rupture, from which, however, there was no difficulty in distinguishing it. In the present instance the swelling was decidedly of the saphenous vein, immediately below its termination in the femoral vein. Whether the subsidence of the swelling depended on its contents being emptied into the femoral vein, and the filling of the track of the vein below resulted from the obstruction of the passage of the blood through it, or whether the swelling of the vein track depended on part of the blood in the swelling in the groin being squeezed from it into the vein, I had no opportunity of ascertaining; but I am rather disposed to believe that the saphenous vein filled in consequence of the obstruction to the discharge of the blood into the femoral vein. It is not, however, matter of consequence as to which was the cause of the loading of the saphenous vein in the first instance; but doubtless the large cistern at the upper end of the vein, which contained as much blood as the whole of the vessel below it, would itself interfere with the free flow of blood from the saphenous into the femoral vein.

Although it might be presumed otherwise, yet it is not very remarkable that an active sailor should have scarcely noticed, and not have suffered inconvenience from, this condition of the superficial veins of his leg for twenty years; for very many persons have varicose veins and suffer little or no inconvenience from them, but go about their ordinary occupations without hindrance, and without resorting to any treatment, unless under exertion, as in lifting heavy weights, or walking a long while and violently, the vein distends greatly, and the weight of the increased quantity of the contained blood bursts its coats and the skin covering it, and a gush of blood ensues, often of large quantity, because, in consequence of the distention, the valves in the vessel do not touch; and, therefore, when the vein gives way, the whole column of blood above it at once drops and flows out through the aperture. This happens when the distended trunk of the vein bursts. But, if the trunk do not burst, the gorging of the vein extends to its minute and capillary branches, and the overloading of these not unfrequently causes their inflammation, which runs on to ulceration—a natural effort to get rid of the additional quantity of blood which has probably coagulated in, and is inconvenient to them; and thus is formed the varicose ulcer—a most troublesome and tedious sore, the dark colour and frequent venous bleeding from which are well-marked signs of its nature and cause. Under either of these conditions, rupture of the vein, or varicose ulcer, the medical attendant who is aware of the cause naturally inquires how long the patient has had the veins varicose, and then, although the reply probably is, that they have been so for many years, the patient is for the first time led to think their existence in this state of any consequence.

Sometimes varicose veins, in consequence of the tardy flow of blood through them, are accompanied with oedema—that is, a collection of serous fluid in the cellular tissue of the limb, by which the skin is distended almost, as it were, to bursting, producing correspondent swelling, which is soft and doughy, so that when the finger is pressed on it a pit is produced by the squeezing aside of the serum, and which does not recover itself till the lapse of some minutes, during which the serum refills the interspaces of the cellular tissue from which it had been pressed.

This oedematous state from varicose veins is, I believe, more frequent in women, not excepting even unmarried women, than in men; and in such cases I suspect the cause of the gorging of the veins is to be referred to the too common negligence of females of all classes to the due and daily relief of their bowels, in consequence

of which the faeces collect in the sigmoid flexure of the colon, and, pressing on the iliac vein, interfere with the free return of the blood from the lower limb. Oedematous swelling of the legs may, or may not, be accompanied with ulceration, the cure of which is very troublesome, and the sore, when cured, is continually breaking out again. Sometimes, without any apparent cause, the distended vein inflames here and there, at irregular distances and in patches, which ulcerate, so that there may be a string of little tiresome ulcers from the ankle up the thigh, which are very difficult to get well.

In rare cases, as the present, the whole track of the vein inflames or becomes phlebitic, without running into ulceration. Whether the phlebitis be caused by the blood contained in the vein becoming coagulated, and the coagulated blood fill up the vessel; or whether, from no apparent cause, the blood coagulates in the vein and sets up inflammation in it, is not easy to be decided. Be this as it may, however, the vein is to be felt, or even seen, as a hard and large cord running along the whole length of the leg, and in some cases, as in the present, the neighbouring branches also are swollen, hard, and inflamed.

If after enduring for a time, as in our patient, the inflammation subside without proceeding to abscess or ulceration, then the contained coagulum is glued to the interior of the vein, which consequently becomes obliterated, and the resolution after a time takes place, by which a large quantity, if not indeed all, of the coagulating blood is absorbed, and the vein reacquires its usual size, and with but little additional firmness. This is, indeed, a most happy conclusion, as thereby the disease is entirely cured.

To bring about this result must be the especial object of the treatment, by cooling evaporating washes and the application of leeches, not, according to Brodie, on the track of the vein itself, as if there applied they are likely to cause little troublesome ulcers, but in the immediate neighbourhood, where they answer the same purpose. This inconvenience certainly may occur, but I do not recollect to have observed it, though I have had many opportunities of treating, and seeing treated, cases of phlebitis. It will be necessary also to act freely on the bowels with purgative medicine, and to allay, by antimony or other remedies, any irritative fever which may be induced by the inflammation of the vein.

As regards the case under consideration, there does not appear any cause assignable for the attack of almost the whole extent of the vein with inflammation—at first, indeed, only that portion of it on the leg, and the swelling on the top of the thigh; but very speedily the intermediate portion between the knee and the swelling above was in like manner affected. There was hardness throughout, but the skin covering the track of the vein was only inflamed here and there; yet the inflammation and pain of the swelling below the groin were so great that it was feared an abscess was forming. However, without any assignable cause, for the mere application of two leeches twice, and a poultice, can scarcely be held as having influenced the disease, the inflammation ceased, and resolution followed, and was going on when the patient was admitted into the hospital.

As I at first mentioned, I had little or nothing to do with the treatment; the evaporating lotion I had ordered, by some accident, had not been applied for four days, and then almost all active inflammation had ceased; and the case continued steadily mending till its termination.

It is probable that the cessation of the inflammation must be assigned to his having been compelled by the pain he suffered to leave off his ordinary employment, and to take to his bed, by which the return of blood from the communicating veins was facilitated, and any further distention of the inflamed vein prevented. And, consequently, as he was of a quiet constitution, the exciting irritation having ceased, the diseased process quickly subsided also.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D.
Paris, &c.

SECOND SERIES. CHAPTER VI.

SEMIOTIC SIGNS FURNISHED BY THE ORGANS OF SECRETION.

In the first series of these lectures, when studying the alterations of the fluids of the body as elements of disease, we entered into considerable detail relatively to the changes undergone by secreted fluids in the progress of the various maladies; these details we will abstain from repeating; we will at present merely look upon these modifications of secretion as symptoms and signs of morbid manifestations.

The secreted fluids may be divided into two great classes, according as they are merely exhaled from surfaces, or elaborated in glandular organs. Let us first turn our attention towards exhalations.

Section I. Perspiration, exhaled from the skin, may be modified in its quantity. Glancing at its changes in pyrexia, typhoid fever for instance, perspiration is seldom much increased, except, perhaps, in the first stages of the inflammatory form; in proportion as the disease advances the skin becomes more and more dry. In miliary fever and in milk fever, perspiration may be very abundant. Sudor constitutes the third period of the paroxysms of ague, but it may fail to appear; and sometimes, on the other hand, it persists in an inconvenient degree after the intermittent has been arrested, and yields only to change of air and to a tonic regimen. In phlegmasia, much variety is observed with respect to the perspiratory function: in general the skin is dry when they are at their height, and moistens when the inflammation begins to yield. In inflammations of serous membranes, perspiration is unusual; it is often very free in pneumonia; and in rheumatism, even when the disease is in its period of status, and should not prevent the use of the lancet, if the symptoms indicate the propriety of venesection. Turning to chronic diseases, we find that the first stages of pulmonary consumption are attended with perspiration when the patient is in a debilitated state; but when excavations have formed, the chest, head, and neck become the habitual seat of abundant perspiration, which usually breaks out towards morning, coincides with feverishness in the evening, varies often with the state of the atmosphere and the progress or arrest of the thoracic disease, sometimes alternating with the occurrence of diarrhoea. What is the cause of these sudoral exhalations? We are not prepared to say that they constitute a vicarious function, supplying imperfect pulmonary exhalation; but we cannot consider them as the mere result of debility, for this reason, that in cancer of the stomach or in other diseases of the digestive organs, in which great weakness is observed, the skin remains dry. In general, however, it is correct to say, that, excepting in plethoric and fat subjects, exaggerated perspiration is a sign of debility. During the last struggles of agony, the skin is often the seat of profuse exhalation, and in convalescence the same symptom is also observed. Perspiration may be local or general, and may be modified in its chemical or physical attributes. The perspiratory fluid is generally acid; when very abundant it may be neutral; but it is never alkaline, except when accidentally mixed with sebaceous matter. In diabetes, in typhoid fever, it has erroneously been stated to be alkaline, but it is always acid. On one or two occasions during the last year, after the exhibition of vapour-baths, we observed its reaction to be alkaline; but the phenomenon has never since then chanced to fall under our notice. The odour of perspiration is slightly acid, as in milk fever; the frequency of fetidity of sudor has been,

in our opinion, greatly exaggerated, and chiefly depended upon uncleanness of the patients, or other circumstances equally foreign to the perspiratory secretion. The consistency of the cutaneous exhalation may be watery or viscid; the latter is usually of an unfavourable nature. It may be warm or cold; and when its temperature is low, we are unable to say if its chemical composition is modified.

Exhalations from mucous membranes belong to the semeiotic history of the various systems—digestive, respiratory, &c.—which have already been entered into at length.

Serous membranes exhale fluids, from the examination of which diagnosis may be benefited. When a liquid fills a serous cavity, or the areolæ of the cellular tissue, one of three causes must be admitted to exist, viz., an idiopathic morbid action, an obstacle to the freedom of venous circulation, or an alteration in the composition of the blood. The idiopathic morbid action which has caused serous effusion may be inflammation, and in these cases the fluid usually contains fibrine in small quantities; or the irritation may occupy the neighbourhood of the cavity in which effusion has taken place: thus oedema sometimes follows the application of a mustard poultice, or appears after leeches, or is observed in some forms of erysipelas; in the latter case, it is true, it may be argued that the cutaneous inflammation has more or less interfered with the return of the venous blood to the heart. But these various cases are rare in comparison with those in which inflammation produces in serous cavities deposits of another nature, such as pus, false membranes, &c.; or, again, with those cases in which serous effusions result from obstacles to the venous circulation. Thus, when one limb only becomes oedematous, we should carefully examine its principal vein. When the face is swollen, we have a right to suspect obliteration of the cava descendens; and the infiltration of both inferior extremities points to an obstacle to the passage of the blood through the ascending cava: it is also a sign of disease of the heart; but never indicates hepatic disease nor obliteration of the vena portarum. When this venous duct is obstructed, the serous collection forms in the peritoneum, and thus ascites becomes a sign of affections of the liver and constantly attends cirrhosis. Indeed, in other maladies of the chylipoietic gland, ascites is accidental, and results from gradually increasing pressure upon the vena portæ; at a later period the vena cava also is more or less compressed, and anasarca follows. Enlargement of the spleen produces ascites less frequently than it is usually supposed. In all these cases the dropsy is partial, but it becomes general when the central organ of circulation is diseased. When the heart is primarily affected, the swelling begins in the lower extremities, and thence rises to the body; collections of fluid accumulate in the peritoneal sac. Where congestion of the liver facilitates their production, and after various alternatives of improvement and relapse, the dropsy finally becomes permanent. Serous affections, also, result from changes in composition of the blood: that is, from one peculiar chemical alteration of that fluid, viz., diminution of its albumen. We are not aware of any other modification of the blood which leads to dropsy.

Gases may also be found in the cellular tissue, or in serous cavities; they are seldom, however, produced there, but usually come from other parts. Observation seems to lead to the conclusion that idiopathic emphysema does not exist. M. Louyer-Villermé reports a case in which violent convulsions were followed by spontaneous emphysema. In examining the case, Dr. Landouzy very properly inquires if this result may not be referred to some fissure having suddenly formed in the trachea during convulsion. Dr. Cazalas, of Lyons, observed in 1842 a case of dysentery, in which the neck, body, and superior extremities became distended with air. On dissection no alteration of the respiratory organs was found, except a sub-pleural emphysema; but this circumstance, coupled with the fact that the air penetrated only those parts placed in the

vicinity of the thoracic cavity, must still leave us in doubt. The existence of spontaneous emphysema is therefore not demonstrated, and in general it may be traced to a laceration of the lungs or trachea. We purposely omit the cases of wound of the thoracic walls, in which no doubt whatever can be entertained. We once observed a case of phthisis and pneumo-thorax, in which general emphysema occurred; and Dr. Burgrave, of Belgium, relates a case of gastric disease, in which sudden emphysema was noticed. On dissection, adhesions were found to have bound the omentum to the abdominal parietes, and the air had passed from an opening of the softened stomach into the cellular tissue. Exclusive, therefore, of these uncommon cases of emphysema from disease of the digestive tube, it may be said to indicate constantly a communication between the respiratory organs and the cellular tissue of the body.

Gases may also be found in serous cavities—in the pleura, for instance—but never in consequence of mere exhalation; it may have formed from decomposition of purulent deposits within that cavity, after emphysema has opened into the bronchi, or from gangrene of the pleura (Laennec). In the vast majority of cases of pneumo-thorax the air comes from the lung, and it may proceed from various maladies of that viscus: from tubercles or excavations bursting into the pleura, from abscess of the lung ulcerating the serous membrane, from gangrene, from sudden laceration of the pulmonary surface in local apoplexy, and sometimes, perhaps, from emphysema. But consumption and pulmonary gangrene are the two great causes of pneumo-thorax. This accident is not by any means of so fatal a nature as might be supposed; much depends upon the size of the fistulous orifice, the quantity of air admitted into the pleura, and the violence of local inflammation caused by its presence. We have seen in consumption life persist several months after the occurrence of pneumo-thorax; indeed, the fistula may heal, and the air be replaced by fluid, which, in its turn being absorbed, permits the organs to return to their natural condition. In the pericardium gases may be found, but they are usually the result of putrefaction. We know only of one instance in which their presence was recognised during life; it is a case of M. Bricheteau, which we related when studying the signs furnished by the circulation. In the peritoneum we will also deny, until more satisfactory proof has been offered, the existence of essential tympanitis. Peritoneal gases almost invariably have passed from the digestive tube into the serous cavity. In the "Journal des Connaissances Medico-Chirurgicales" for November, 1842, we find a curious case in which, thoracic disease previously existing, sudden and immense abdominal distention was observed. The imminence of suffocation induced the physician to puncture the abdomen, when a large quantity of gas escaped; tympanitis was almost immediately reproduced, and puncture resorted to a second and a third time. The patient died twelve days afterwards. On dissection the peritoneum was found distended with gas, and inflamed; the diaphragm was perforated, and the aperture led to pulmonary cavities resulting from gangrene.

Section 2. We will now examine the alterations of fluids secreted in glandular organs.

Tears may be modified in their quantity by disease. Thus, in some cerebral diseases, in apoplexy, e.g., epiphora is a common symptom; we also meet with it in some varieties of facial neuralgia.

The modification of saliva may bear upon its quantity or composition. This secretion decreases in many disturbances of the nervous system, and even in simple emotion the mouth is observed to be dry. Salivation is usually the sign of a congestive or inflammatory condition of the mucous membrane of the mouth, whether produced spontaneously or by the exhibition of medicine, mercury for instance. Ptyalism may, however, be a primary pathological fact: thus, salivary fluxes have been observed in some

women at the beginning of pregnancy, and have occasionally continued throughout gestation. In its composition, saliva is less frequently modified than it is usually believed; in the first series of these lectures we entered into some details on this subject, towards which we can at present cast only a hasty glance. Saliva is naturally alkaline, and we do not believe that it can become acid from disease; the buccal mucus is often acid, and, being mixed with the saliva, has caused the error. But neither in diabetes mellitus, nor in gastritis, have we ever found the salivary secretion acid.

Last winter we laid before you the history of the alterations of bile, examined as elements of disease. This season we again returned to the subject, when treating of the semeiology of the digestive organs. It now remains for us to study one special case connected with the biliary secretion, viz., the passage of bile into the blood, or icterus. Jaundice or icterus appears in two distinct circumstances; in the first place, it may be present, the dejections containing no bile. Icterus is, then, the sign of some impediment to the arrival of bile into the duodenum. This obstruction may consist in inflammation of the ductus choledochus or hepaticus, either idiopathic or consequent upon duodenitis; calculi in these ducts, or tumours, cancer for instance, pressing upon them, may also interfere with the passage of bile into the intestines, and occasion jaundice. After violent emotion, the sudden disturbance of the nervous system may, simply suspend the hepatic secretion, as it does that of the salivary glands, and be the cause of icterus. In the second place, jaundice may show itself at the same time that bile is found in the dejections. This, for instance, is usually observed in hepatitis. Indeed in hepatic diseases icterus occurs with such irregularity that it is the duty of semeiology to endeavour to assign to this symptom its real diagnostic value. Incidentally it may be met with in all maladies of the liver, hepatitis, cancer, hydatids. In the last-named malady it is not so frequent as in the two former, and it is hardly ever noticed in cirrhosis. Icterus may be symptomatic of acute or chronic biliary diseases, of perihepatic peritonitis, of diaphragmatic pleurisy, of inflammation of the right lung. It gives in yellow fever a colour to the skin and a name to the fever; in this terrible disease we should, however, say that the liver is not affected as often as it is supposed; in acute cases it is remarkably pale and flaccid. After the introduction into the blood of the venous of some serous an icteric hue is observed; also in purulent absorption; and finally we meet with it almost invariably during the first week of life, when it is not the sign of any alteration of the liver or digestive organs, but seems merely to be produced by the suddenness with which the liver is called upon to perform a new and important function. The degree of pain experienced by the patient in icterus depends entirely upon its cause; thus distention of the liver, if the peritoneum be affected, will occasion suffering. Intense pain may arise from the presence of calculi in the ductus choledochus or hepaticus; and, singular to say, it is often an intermitting pain, and is, besides, accompanied with other symptoms which constitute hepatic colic. This colic occupies the right hypochondrium, and is attended with nausea, vomiting, extreme anxiety, and a tendency to syncope; the skin grows cold, the pulse small, and the symptoms may disappear by the expulsion of the gall-stone into the intestines, or by the return of the concretion into the gall-bladder. It sometimes happens that these symptoms are so perfectly periodical as to lead almost inevitably to error, and to be attributed to a simple neuralgia of the plexus which surrounds the biliary duct. We committed this error once ourselves, and the mistake was proved by the passage of a large calculus with the feces.

The volume of the liver may be increased, and the detection of this change may lead to diagnosis of disease. By palpation, for instance, we may sometimes recognise enlargement of the viscus, and its state of roughness or of smoothness.

It is enlarged and even, in congestion, inflammation, hypertrophy, or fatty degeneration; if palpation detects a tumour on the hepatic surface, that tumour will be even if it be an abscess; or present a special elasticity, and on percussion and auscultation a peculiar tremor, if the swelling be due to hydatids. When the peritoneum has become inflamed around the liver, and false membranes have formed, friction sounds may readily be distinguished on auscultation. Percussion should not be neglected in the examination of these tumours, which never yield a perfectly dull sound when they belong to the stomach. The size of the liver is constantly diminished in cirrhosis. The gall-bladder may form in the right hypochondrium a tumour, of a pyriform shape, usually movable, and variable in size. The distention of the vesica may result from accumulation of bile, some obstacle existing to the passage of that fluid into the intestine; or calculi may form in the gall-bladder, and, their collection being felt by the hand, may lead to the diagnosis. On auscultation of this region, M.M. Barth and Roger, on one occasion, heard a gurgling sound which took place in an accidental cavity of the liver, communicating with the lung. We now turn to those signs of disease furnished by the urinary apparatus. We described in the first series of these lectures the alterations of urine, and will now only consider them as symptoms of disease. The quantity of the renal secretion may be increased, as in polydipsia—a disease which may be idiopathic, or connected with diabetes mellitus. The urine is diminished, on the contrary, in febrile excitement, and when abundant perspiration is produced; the secretion may be altogether suppressed—a fact chiefly observed in Asiatic cholera. The colour of urine depends in a great measure upon the proportion of water which it contains: if the secretion be scanty, the urine is of a dark-red colour. In leucæmia, in chlorosis, the urine is pale, because its solid elements are less abundant; in hysteria, its colourless appearance is remarkable and unexplained. Urine may be coloured by the presence of blood in the bile: the blood may have coagulated in the urethra, or come from the bladder, resulting either from idiopathic hæmorrhage, vesical catarrh, or cancerous disorganization. When the blood comes from the kidney it usually indicates the presence of concretions, and sometimes, but rarely, precedes the development of albuminuria. Hæmaturia may finally be symptomatic of a general tendency to hæmorrhage—as in scorbutus, purpura, typhus, yellow fever, &c. Bile is found in the urine only when jaundice is present, or a very short time before its appearance. When the greenish colour is not very distinct, it becomes so by the addition of a few drops of nitric acid. The odour of urine is never fetid in disease, except when it has sojourned in a diseased bladder. Some substances communicate a peculiar odour to the secretion, asparagus and turpentine for instance. The taste of urine is sweet only in diabetes mellitus. In all diseases, as well as in health, the urine remains acid or neutral. If the bladder be diseased, or the urine be allowed to remain a long time without being removed, it may acquire an alkaline reaction: thus, in disorders of the spinal cord, in which the bladder is paralyzed, the urine becomes alkaline; but in other maladies this is never the case: even in albuminuria, the renal secretion remains acid. Accidentally, during the course of disease, for one or two days, and under the influence of special articles of food, the urine may cease to be acid; but not in any constitutional manner, nor for any length of time. During disease, urine may spontaneously, or from the influence of chemical reagents, lose its transparency. Let us examine the deposits in these two different cases.

When the urine becomes spontaneously opaque, the disturbance may be general throughout the fluid, or form at the bottom of the vase sediments and deposits, or assemble in the middle or on the surface in the shape of clouds or snow-mata. The latter merely betray the presence of mucus in a healthy or almost healthy state;

they are observed in leucorrhœa, in feverishness, and sometimes in health. Troubled urine (urine jumentense) indicates the presence of abundant mucus, or of the acid lithate of ammonia; two circumstances which can be readily distinguished from each other: heat and nitric acid dissolving the lithate, and exercising no action upon mucus. Excess of lithate is observed at the incipient stage of many diseases—in dyspepsia, feverishness, &c. We will now enumerate the various sediments of urine:—1. Uric acid forms a sediment of loeangic crystals, and is characteristic of red gravel. 2. The phosphate of ammonia and magnesia, or phosphate of lime; these substances deposit spontaneously in the urine in white gravel, but are thrown off in the bladder when pus is in contact with the urine. It is this triple phosphate which is not unfrequently observed upon the surface of catheters. 3. Lithate of ammonia: white, when in a pure state; pink, when mixed with a certain colouring matter, formerly called roseic acid, as in cases of intense febrile excitement attended with profuse perspiration, or of cirrhosis accompanied by considerable ascites. This deposit, which dissolves on the addition of nitric acid or the application of moderate heat, was for a long time erroneously looked upon as critical in the course of febrile diseases—an opinion disproved by rigorous observation. 4. Blood may be observed in urine, and its nature is in general readily ascertained. 5. Mucus, when abundant, assembles at the bottom of the vase which contains urine, and indicates vesical catarrh and cystitis. It is not removed by nitric acid, and is very slightly diminished by heat. 6. Pus, when found in urine, always communicates to it an alkaline reaction and an ammoniacal odour. The pus may have originated in the urethra, bladder, or kidneys, or proceed from some abscess which has opened into the urinary cavities. 7. False membranes are sometimes deposited from urine, a fact not uncommon after the application of the emplastrum lytte to any part of the skin. 8. The urine may present deposits which attest the presence of cancer in the bladder; and sometimes the urine is altogether replaced by a fetid liquid, a forerunner of a speedily fatal termination. 9. Spermatoc matter may be deposited in the renal secretions, but its nature must be tested by the microscope. And, finally, the urine may contain feces when a morbid communication has accidentally been established between the lower part of the digestive tube and the urinary organs.

All these deposits may spontaneously be formed in the urine; but others may also be obtained artificially, and are of considerable value to the diagnosis. Thus, for instance, lithate of ammonia may exist in urine without being spontaneously deposited. The addition of two or three drops of nitric acid cause the precipitate to form, and a few drops more of the acid dissolve it again. Nitric acid, and heat also, sometimes cause the coagulation of a certain quantity of albumen contained in the renal secretion. If the urine has become alkaline, heat alone, without the previous addition of acid, will be insufficient to cause coagulation of the albumen. Heat occasionally produces the formation of a slight deposit, which disappears with effervescence upon the addition of nitric acid. This deposit is constituted by carbonates; but we do not at present very clearly understand the cause or the mechanism of their formation. The discovery of the accidental presence of albumen in urine is a conquest of modern science; and Dr. Bright established that this fact was always connected with a variety of dropsy in which the kidney is constantly diseased. Whenever for any length of time we have found the urine albuminous, we have always found, also, the kidneys altered in a manner which it is not our present object to examine in its various stages, degrees, and perhaps natures. This albuminous urine is pale and frothy; its specific gravity is much diminished, some of its solid elements—urea, for instance—ceasing to be excreted from the kidneys. In disease of the heart, when the kidneys are the seat of considerable congestion, the urine may also contain albumen in a tempo-

rory manner. In all these instances the debility of the patient gradually increases with the daily loss of albumen.

In diabetes mellitus, caustic potash, heat, or milk of lime produces in the urine a brownish deposit, consisting of glucosis, or grape-sugar. According to the quantity of the latter, the colour may vary from a lemon colour to a dark brown. The urine should in the first place be tested by heat, when albumen, if any be present, will be coagulated; after filtration the fluid should be submitted to contact with one of the above-named reagents, which will detect very small quantities of sugar. Frommer's fluid (potash and tartrate of copper) has also been used for the same purpose, and forms in diabetic urine a precipitate, at first yellow and afterwards red, constituted by protoxide of copper. These various chemical actions should be completed by evaporating the urine to a syrupy consistency, and, by the addition of a ferment, endeavouring to establish alcoholic fermentation. M. Guévenne discovered in diabetic urine the presence of microscopic globules of ferment. In diabetes mellitus, the specific gravity of the urine is always increased, and oscillates between 1022 to 1044, 1018 being the average density of healthy urine. Its colour is usually pale, and its odour feeble, except when boiled, a distinct smell of burned sugar being then produced; when fermented, it exhales the peculiar smell of alcoholic fluids. Its taste is not always very distinct, and one of the best signs of the presence of sugar in the urine is the fact discovered by M. Biot, that it polarizes light to the right side. The observation has been fully confirmed by the researches of Bouchardat and Martin Solon. We should be aware that albumen deviates the rays of light to the left, and, therefore, when the presence of albumen coincides in the urine with that of sugar, the deviations may neutralize each other, and lead to an inaccurate appreciation of the quantity of sugar. It is, therefore, necessary to remove the albumen first, by coagulation and filtration, before the urine be tested by the polarimeter.

In our next lecture we will begin the semeiology of the nervous system.

THE HUNTERIAN ORATION.

This annual address was delivered on Monday last, by R. D. Grainger, Esq., of St. Thomas's Hospital, to a very crowded audience. Sir R. Peel, Sir R. H. Inglis, the Dean of Westminster, and the heads of the medical corporations were present. From the low tone of voice, more particularly remarkable at the close of sentences, which detracted from the effect of Mr. Grainger's otherwise agreeable delivery, much of his meaning was lost to a great proportion of his hearers.

Commencing with a recognition of the circumstances of time and place under which the assembly had met, the orator indicated, at an early stage of his address, the particular direction which his remarks would take. Modestly avoiding an ambitious flight, he preferred to rest on his experience, as a teacher in a large medical school, his title to speak freely upon the past and present state of organic science. He believed that a review of the nature and amount of physiological knowledge, as it existed at the time when he first was called to teach, and of its progress to the present time, would be full of instruction. That progress had not been the work of chance: it had been preceded by a rational cause, and depended on the same laws as did the advancement of human knowledge in every other department. Its degree had been so high that it was surprising to him that it had not attracted greater notice among the educated and the learned. The generalization of the properties and laws of organic nature, within the last ten years, had attained an importance that could only be compared to the determination of the laws of chemical affinity; and that which had been hoped for as the fruits of some centuries of inquiry had been realized within a few years. He might cite, in confirmation, the discoveries of

nervous connections by Bell, and the theory of cell-formation of Schwann. But not only had the results actually obtained been sufficient of themselves for a subject of felicitation, the mode of investigation had been changed and placed in harmony with that of the other inductive sciences. To appreciate rightly the state of organic science as it existed till within a very short time, it would be necessary to discriminate between what was then positively known, and what dwelt in conjecture and uncertainty; for, unless this distinction was kept in view, the character of its subsequent progress could not be properly estimated. He would say that, in the anatomy and physiology of that period, the most striking feature might be characterized by the term *uncertainty*. Of the ultimate and essential structure of bone, cartilage, nerve, epidermis, and their allied organs, nothing was known positively. The connection of the vascular system and solid tissues, and the question of secretion and absorption, were left in vagueness and doubt, and no useful generalization could be established. The attempts that had been made to question Nature anew, by a process more analogous to the relative unity of the objects of knowledge to the human mind, had been successful in reclaiming the science of the body from speculation and doubt, and of placing it on the same basis as other positive sciences. The triple combination of *design, unity, and law*, he thought, had not been sufficiently present to the minds of preceding inquirers. It was first necessary to subvert the prevalent belief, that the phenomena of living bodies had something so peculiar and so distinct from those of chemistry and physics as to require a mode of investigation different from that of all other objects of knowledge: a doctrine which had always exerted great influence on the progress of anatomy and physiology. Minute anatomy was unknown, and secondary phenomena gave the laws to the most important functions of life. When the teachers or writers on these subjects felt themselves at a loss, they were contented with urging the necessity of further inquiry, without showing in what way or by what means it was to be prosecuted. Both teachers and pupils were only creeping about in the dark, accumulating facts which, from their diversity and contradictory aspect, only increased the difficulty of arriving at a general law, and strengthened doubts as to the trustworthiness of science. Among the most striking and instructive of the features of the present state of science was the fact that it is no longer proposed to cultivate the knowledge of the human organization by one or two means of research. Nor does the study of the human body alone, nor the aid of the microscope, of chemistry, and of embryology, suffice for the requirements of the present method of prosecuting the sciences of human life and structure. The physiologist is called on to appeal to the general laws of matter, whether organic or not. If it be said there is nothing new in all these methods, it is true, if it is meant that singly these means of knowledge have to some extent been employed; but it would be difficult to point to any age or country where they have before been combined into a system and directed to these purposes. Another important characteristic of modern inquiry was the part assigned to the purer intellectual function. Although no one could see more clearly than the orator the importance of emancipating the mind from the bondage of the senses, and that nothing but the strictest questioning of Nature would suffice, yet it was a fact that great promoters of science had almost without exception been industrious observers. Some had, indeed, appeared at long intervals who had seemed to reach great conclusions to some extent, independently of the senses. Harvey saw not with the bodily organ the junctions of veins and arteries on which the doctrine of the circulation is built; but the means of science must be adapted to the course of every-day study, and not to exceptional possibilities. It was by the microscope that those beautiful revelations of minute anatomy had been made on which

future physiologists would delight to look back. The anatomy of muscular products exhibiting a fibre composed of two substances, distinct in their constitution and enclosed in different cells, detected in the 18,000th part of an inch, was an achievement of which modern times might be proud. The great principle of the new school of physiology, which is so subversive of those of the former, was, that vascularity is secondary and subordinate, and not essential to organization, and might be dispensed with. It would be vain to attempt any definition of vital forces, and the same difficulty besets the naturalist in this respect. We know as much of vital forces as we do of those we call physical. The views of Hunter on this subject were so much in advance of his age; that it required the lapse of half a century that his views might be appreciated; and now many persons were found to say, that the facts accumulated by Hunter would be valued when his speculations were forgotten. It was precisely on these depreciated speculations, as they were called, or rather as he would term them—those sublime generalizations and laws of vital forces—that the highest claims of Hunter to the veneration of posterity will most abidingly rest. There was no difficulty in comprehending that Hunter had a clear perception of two great truths:—First, that vital forces are possessed by the fluids as well as the solids of the animal body; and second, that these forces are possessed by parts of the body non-vascular. The mere form assumed by matter is not an essential property, though we are accustomed to connect the idea of life rather with a solid than with a fluid. Thus compound matter, water—in its three states of vapour, solid, and fluid—possesses, notwithstanding its change of form, its essential properties unaffected; and the same thing may be said of living substances, as the extended researches of modern physiologists leave no room to doubt. There is now no difficulty in comprehending what Hunter affirms, that the living principle exists in the different parts of the living body, independently of brain or circulation. It would be impossible for any physiologist of the present day to give a more precise expression than Hunter has done, to the fact that organization is essentially independent of vascularity. The first and most obvious fact which strikes an observer in contemplating the phenomena of the living animal is, that everything seems to be peculiar and different from what has been observed in other bodies, inorganic or vegetable bodies; but it soon becomes apparent that the most important functions depend on the laws of chemistry and physics. The living body contains no new elementary substance; and we constantly encounter in the animal economy processes which have their counterpart in the chemist's laboratory. Speaking only of the body, we might say that physics and chemistry supply the forces of life.

After enumerating some of the names most distinguished amongst modern promoters of science, the orator proceeded to notice the deaths of Mr. Liston and Mr. Morgan, as a loss sustained by the profession since the last anniversary. Of the character of the former he read a delineation by Professor Miller, of Edinburgh. Mr. Liston was distinguished by high resolve, indomitable energy, and inborn consciousness of power; and was a zealous enthusiast in his profession. His eye was fine and sharp; his wrist reminded one of Nasmyth's steam-hammer, which drives a pile or touches a needle's point with equal aptitude. Professor Miller had never seen it shaken, and did not believe it could have been shaken. His size and strength gave him great advantage in operations. He was particularly fond of instruments, and was always trying to simplify them, believing that the degree of their simplicity was the degree of their utility. Trifles were apt to put him out of temper, but grave accidents only rendered him more calm. He has been seen to rush out of the operating-room to weep and sob, but in the scene of action he never showed the least emotion. Obstructed in the midst of an operation, he never stopped to talk or scratch his

head, but in an instant the thing was done. That, for him, was the best move that was accomplished on the spur of the moment. He had great powers of diagnosis and touch: a touch and a glance would do more for him than a whole day's meddling for some practitioners. He had great faith in the *vis medicatrix nature*, and would avoid the use of drugs whenever possible. He was firmly set against quackery in all its forms. As a teacher he was neither fluent nor eloquent, but distinct and practical, with great power of gaining the attention of his pupils. Though second to no operator then living, he avoided an operation whenever the welfare of his patient could consist with such a course. He observed in a letter to a friend—"My principal business is to prevent the necessity of operating." Mr. Morgan was a most skilful as well as bold operator, and was distinguished for the attention he bestowed upon *medical surgery*. His writings, which were not numerous, were marked by great clearness and strength. The work on Poisons, undertaken in conjunction with Dr. Addison, contributed much to his fame.

Taking a general retrospect of the subject of his address, the orator drew an argument in demonstration of the existence of a wise Creator, from the delicate arrangements of the human body, more particularly brought to light in the achievements of modern organic science; and concluded an oration of two hours which had been listened to with the most marked attention.

ORIGINAL CONTRIBUTIONS.

CLINICAL NOTES.

No. XI.

By RICHARD DE GUMBLETON DAUNT, Esq., M.D., (Edin.), Member of the Faculty of Physicians of Rio Janeiro; and Member of, and late Honorary Secretary to, the Parisian Medical Society.

"Multum adhuc restat operis, multumque restabit; nec ullo nato post mille secula, præcludetur occasio aliqua adhuc adjuvendi."—SENeca, Ep. 64.

In the absence of all accurate statistical information, it is impossible to say *what*, but it is certain that a very large, proportion of the deaths occurring in Brazil between the ages of forty and sixty are owing to chronic diseases of the heart and liver, attended by dropsical swellings. It is of the pathogeny and therapeutic indications of this form of disease that I am now to treat; and, as I believe the same diseased conditions exist more or less in India and the Antilles, I offer what I am about to say to the especial criticism of medical men acquainted with disease in those regions. Nearly the whole body of practitioners in this country regard this disease;—appearing as it does with the following symptoms: anasarca, more or less general; ascites, enlargement and sensibility of the liver, urine high coloured and in diminished quantity; palpitations and tremors of the heart, sometimes with pain; cough, sleeplessness, violent attacks of oppression in the chest, or dyspnoea, occurring chiefly at night; a variety of indescribable painful sensations in the precordial region in a paroxysmal form; that peculiar discoloration of the skin which indicates some other alteration of the hæmatose beyond that of simple anæmia—anorexia: the state of the pulse is variable, and these symptoms do not always exist at the same time, as *æz. gr.*, the dropsical swellings in some cases only appear a few days before death; the cough only when the disturbed thoracic circulation has induced a congested state of the lungs, &c.;—regard this disease, I repeat, as a form of chronic hepatitis, inducing subsequent cardiac derangement, or else as hypertrophy of the heart, or valvular disease, producing the enlarged and sensible liver, as the prior appearance of thoracic or abdominal symptoms may incline their opinion; and the treatment is based on these views, and consists of bloodletting, local and general. Blisters, diuretics, and in the last stage, when the dyspnoea is dreadfully urgent,

antispasmodics are resorted to by some. Death, however, invariably closes the scene; and all obtained by the above treatment is a palliation of the sufferings of the patient for a few brief days, after which they return, and with apparently increased violence.

From an attentive observation of many such cases, aided by conversations on the subject with my very esteemed and highly-talented friend Dr. John Leslie, an Irish physician, established in Rio de Janeiro, and with Dr. Betoldi, a graduate of Pavia, resident in this province, I have formed the opinion, that in almost all such cases the true pathological condition which requires to be combated is a chronic arteritis. Perhaps I should express my idea better by using the phrase, a gouty subarteritis, caused by the presence of urate of soda and other impurities in the blood; as a result of which, and slowly, a disordered state of the circulation and nutrition of the liver is induced, with a similar state of the heart and a perverted sensibility, or a species of neuralgia of the organic nerves supplied to the heart. Among the facts which favour these views, the most prominent is that the blood of such patients is of a rich dark colour, indicating an excess of fibrine, and the serum presents that peculiar lactescent appearance considered by many physicians as pathognomonic of a general diseased condition of the arterial system, and of the presence of urates. Also, in such persons the insomnia and the distressing sensations in the chest are by no means in constant relation to the degree of organic disease of the heart, nor to be explained by it; and, indeed, the whole state now under consideration is often expressively designated by the laity as an "escandescça," which signifies a general inflamed condition of the body. Very many, too, of those who thus die are of families in whom a gouty diathesis prevails, or have personally suffered from rheumatism, or who by a too sedentary life, or errors of diet and regimen, have fallen into that state which favours the development of gout. Thus, numberless Europeans in the maritime cities, who are notoriously intemperate, have died of such states of disease; and, though the native population is one of the most temperate in the world, yet the highly acotized nature of the chief articles of food in use among them sufficiently explains why they also—fibrine, uric acid, urate of soda, and other impurities, being accumulated in the blood—are so frequently the victims of this distressing malady. On consulting Dr. Sigand's work on Brazil, I find nothing which shows him to have just views on the subject now treated of; but he speaks of a form of hemorrhoidal disease, so called from the evident embarrassment of the abdominal circulation attending it as being very prevalent in Rio; this is also the case in this province, and, in my opinion, it is merely the incipient stage of that disease which, in its more aggravated form, I am now describing. Acting on these views, I abandon entirely the use of general bleeding, and also the application of cupping on the hypocondrium corresponding to the liver, and limit myself to the prescription of the free application of leeches to the hemorrhoidal veins, and application to be repeated according to the degree of embarrassment presumed to exist in the portal circulation. Revulsions I apply, occasionally, when the distressing sensations in the precordial region are so acute as to threaten a suspension of the circulation, and indicate a violent degree of disturbance in the cardiac plexus. When the dropsical collections are great, the most speedily operative diuretics must be had recourse to; and when the most immediately urgent symptoms—or at least that which most alarms the patient (the dropsy)—is dispelled, I begin the administration of those means which appear to me in harmony with my views as to the pathology and morbid physiology of the disease, and these are—bleeding from the hemorrhoidal veins as a palliative; the carbonate of iron, the biphosphate of soda, calomel, cantharides, sulphur, aconite, colchicum, iron, bismuth, the binoxalate of potassa, cyanide of potassium, iodide of potas-

sium, turpentine. The objects to be obtained are to modify the composition of the blood, improve the tone of the organs whose office it is to improve its impurities, produce an hyposthenic influence on the minuter arteries and capillaries, whose serous tunic is in a morbid state; modify the diseased vitality of the great sympathetic nerve, and especially of the plexus governing the heart's action, &c.; which being accomplished (and in support of the claims to notice of the views and practice now expounded I ought to add that, since I have adopted them, this has been so frequently the case as to justify me in placing them before the profession), then change of air, a milk diet, the use of the water-cress as a salad, with decoction of taraxacum, or the Boerhavia hirsuta, and hydrochlorate of ammonia, and a continuance of the use of the lactate of iron and iodide of potassium, is generally sufficient to dissipate, or at least to diminish sufficiently, any amount of chronic engorgement of the liver which remains.

Calomel, in this disease, I exhibit in purgative doses of twelve to eighteen grains, at intervals of some days, with striking relief. It is not, alone, a powerful defibrinator of the blood, but also has a powerful disengorging action on the whole system of the visceral lymphatics. In the small alternative and frequently repeated doses, employed by many in liver disease, I do not in the disease now treated of give it. Cantharides I give in the form of tincture, commencing with one drachm in the day, which is gradually augmented, according to the tolerance, to half an ounce, and continued during tolerance. It has a powerfully sedative action on the heart, causes a copious diuresis of limpid urine, and relieves pulmonary congestion and cough, and regulates organic nervous action. The colchicum I give in large doses with a view to relieve the blood of the uric acid, urate of soda, and other impurities by its specific action, demonstrated in the treatise on Colchicum which we owe to my distinguished friend Dr. Robert Lewins, jun., and, in combination with iron, we have a most energetic agent in radically subduing the inflammatory state of the small arteries and capillaries which gives rise to, and maintains, the whole *sequela* of diseased actions. The biborate of soda, the sulphur, the carbonate of soda, all tend in a weaker degree towards the same ends. Bismuth is most valuable when there is disorder of the gastric functions, as often occurs. Aconite, in full doses, is most valuable in relieving the dreadful depression and other sensations which occur in paroxysms, and which in this, as in other forms of heart disease, are only to be explained by the existence of a neurose of some portion of the organic nervous system. Cyanide of potassium, in as large doses as the patient can tolerate, has a similar use. The iodide of potassium is indicated after the first ameliorations have been obtained, and with iron, and occasional doses of colchicum, promotes a return to healthy action of the diseased bloodvessels. Oxalic acid, binoxalate of potassa, naphtha, turpentine, as defibrinators of the blood, and the last also as a great corrector of the secreting and excreting functions, are often invaluable auxiliaries in the course of treatment.

In order not to be tedious, I refrain from minuter details. That I may not be misunderstood, I will state explicitly that I by no means refer in this paper to all the chronic diseases of the heart and liver occurring in Brazil, but to a certain and large proportion of them; and, anxiously desirous to arrive at a more intimate knowledge of these diseases, I earnestly hope this memoir may call forth comments from qualified persons; for—

"Si peccant artes alius tolerabile certe est;
Hec vero nisi sit perfecta est plena periculi.
Et savi tanquam occulta atque domestica pestis."

City of Campinas, Province of San Paulo,
Brazil, Aug., 1847.

OBITUARY.—On the 11th instant, at Glasgow,
R. Perry, Esq., M.D., aged 66.

FAILURE OF CHLOROFORM.

By JOHN PRANKERD, Surgeon, Langport, Somerset.

Believing that as much information is gained by the profession from the publication of the unsuccessful as from the successful cases, I briefly record the experience I have had in the administration of chloroform, simply observing that I have succeeded in several instances in producing perfect unconsciousness and insensibility to pain; but in the following case, it will be perceived, a total failure occurred, and in others the partial influence only was produced.

Hannah Beckey, aged seventy, admitted into the Langport Union Workhouse, Jan. 7, 1848, with the right foot and leg in a state of dry gangrene, accompanied by a feeble pulse, loss of appetite, great restlessness, and anxiety. She was ordered opium, nourishment, and wine, which by the evening had made her comfortable, and procured sleep.

From the 9th to the 12th she continued much the same, requiring opium three times a day, and castor oil to regulate the bowels.

12. She has had no sleep; is very weak; the pulse feeble; the appetite bad; and her leg become very offensive. I fully explained the danger and difficulty of the case, and stated that the removal of the limb would not ensure life (as she was urgent for its being done). A few hours after, Mr. Valentine, of Somerton, a neighbouring practitioner, joined me in consultation, and he again explained to her the nature of the symptoms, as also did the chaplain of the workhouse; but as she was still willing to undergo the operation, and being assured that, through the administration of chloroform, it would be attended with no pain, she was removed to another room for the purpose; and, on placing her on the table, her bowels appeared enormously distended, and it was evident it must be from fluid. She said that her water had passed regularly, and in considerable quantity; but, being satisfied that the bladder was distended, a catheter was introduced, and nearly three quarts of urine, by measure, were drawn off much to our astonishment. The inhalation of chloroform was commenced, Mr. Henry Stuckey holding some of Hooper's preparation in a handkerchief under her nose, and continued perseveringly for half an hour, occasionally changing the handkerchief for the bottle containing the fluid, and then trying another specimen we had, of Morson's manufacture, in a similar way. About an hour was spent thus in a fruitless way endeavouring to produce insensibility, but with the exception of a slight drowsiness, from which she was immediately roused by questioning, no effect whatever was perceptible. I then told the old woman I could not perform the operation without giving pain, and, as she was still willing, I amputated the thigh by the circular incision. The femoral artery was found much ossified; it and three other vessels were tied; about half a pint of blood was lost. She was given wine, and removed to bed, the stump being covered with lint. At eight o'clock the stump was dressed, a dose of Batley's given, and an assistant left in charge.

13. Slept well; better than at any time since being in the house; takes nourishment in good quantity, and is very cheerful; the stump easy; about three pints of urine drawn off.

14. Another good night; stump dressed in the presence of Mr. Valentine; adhesion had taken place throughout nearly two-thirds of the edges. Two sutures were taken away; in no pain, but rather irritable and peevish. Castor oil ordered, as the bowels were unrelieved. She continued going on alternately better and worse until the 23rd, the eleventh day from the operation, when she sunk, borne down by the disease, and also a sloughing of the nates produced from the dribbling of the urine, which occurred notwithstanding the daily use of the catheter.

It may be inquired to what the failure of the chloroform was owing; and I know of none, save the administration of wine, which was given her an hour before the operation, or idiosyncrasy of constitution. The usual precautions of quietude

and freedom from mental excitement, avoidance of questioning and talking, were observed. The chloroform had been previously used successfully.

In another case, one of midwifery, where I had been in attendance for four days, and in which I was obliged ultimately to deliver by forceps. I also gave the chloroform; and, although producing sleep as often as administered, I could not perceive perfect insensibility, for the labour-pains, which occurred every five minutes, invariably roused the patient after a few times, although the chloroform was kept constantly applied.

In another case I extracted a tooth, and, as I thought, without the patient being sensible; but he distinctly stated that he heard voices in the room during the whole time, and was aware when the tooth was extracted.

In another case, the patient in a state of insensibility when the key instrument was applied for the abstraction of a tooth, convulsive action occurred, and he snapped off the tooth from violent contraction of the muscles of the jaw; he was insensible some time after the tooth was extracted, and left with headache and very drowsy.

In another case I introduced a seton in a patient that appeared unconscious, but she distinctly felt the needle and struggled hard, but without saying a word.

These few cases, briefly stated, will show that this agent, although powerful, is not always to be relied on, and, notwithstanding I have produced perfect insensibility and freedom from pain in others, I should in many cases be induced to pause before its administration. Headache, drowsiness, convulsive action, nausea, and other effects have followed, which, though not alarming, would show that it must be given guardedly. The specimens I have used were from the laboratories of Hooper, Morson, and Preston and Son.

THE MEDICAL TIMES.

SATURDAY, FEBRUARY 19, 1848.

SETTLEMENT OF THE QUESTION OF MEDICAL REFORM.

We are happy in being able to announce that there is a great probability that a final settlement of medical reform will speedily be accomplished. We can conceive the astonishment with which this declaration will be received by many of our readers, who, wearied with the duration of the struggle, have almost abandoned the hope of an adjustment. It must be, however, a cause of satisfaction to all classes of practitioners to know that such a scheme for the settlement of this question has been agreed to, as will sustain all interests that ought to be sustained, and render full justice to the claims of the general practitioners.

We rejoice, inexpressibly, at the approaching consummation of our wishes, and of the fulfilment of the hopes of those enlightened advocates of justice and equity who have so long contended for the legal recognition of those important principles. The scheme will, no doubt, in a short time be submitted to the profession; and we are informed that a general meeting of the committee and local secretaries of the old National Association is convened for this day (Saturday) to express an opinion on the plan that has been arranged.

Without going into details, we are at liberty to state that several conferences have been held, by delegates from the Colleges of Physicians and Surgeons, the Society of Apothecaries, and the National Institute, at the College of Physi-

cians; these conferences, we understand, were conducted in the most amicable spirit, and with a strong desire among all parties to arrange such a scheme as should be satisfactory to all classes in the profession.

The profession will no doubt be impatient, after this announcement, to be made acquainted with the proposed scheme, and our readers may rely upon us that, so soon as it shall come before the public, we will give to it that consideration which so important a document will demand. Neither captiously objecting to minor details where the general welfare is intended, nor yielding indiscriminating assent where there may be matter open to disapprobation, we will endeavour to do our duty faithfully, and with a special eye to the interests of that class in the profession, whose well-being has been the constant object of our solicitude.

We cannot, however, refrain from expressing, at this early period, our satisfaction that the various corporate bodies of the profession, with objects and sentiments so dissimilar, should at last have agreed upon submerging all petty and illiberal jealousies, and upon uniting cordially for the accommodation of each, and the accomplishment of the general good. Continued mutual hostility would have been fatal, even to the interests it was intended to benefit; amity and co-operation can alone bring tranquillity and order to a disturbed and disorganized profession. The friends of peace will be gratified at this promise of future union and mutual accord. The olive-branch is proffered, and we hope that the terms which it professes to symbolize will be in reality such as a wise policy would approve, and an independent profession can without dishonour accept.

We believe that much gratitude is owing to Sir George Grey, for having brought the profession together to consider the grave question of medical legislation in a spirit of concord, whereby concessions may be rendered less ungraciously, demands made in a more conciliating temper, and the subject brought to an easy and satisfactory termination.

LORD MORPETH'S BILL.

THE following is the substance of the principal enactments of this measure:—

A General Board of Health is constituted, consisting of the First Commissioner of Woods and Forests, and four others appointed by her Majesty. These have the power of appointing a secretary, clerks, and certain superintending inspectors (number not named).

On the petition of fifty householders a superintending inspector must make local sanitary inquiry; of which inquiry, however, full notice is to be given. On such report the commissioners may extend their powers to such locality.

The mayor and certain members of the council of every municipality shall be formed into local boards of health.

The local boards may appoint surveyors, inspectors of nuisances, clerks, and treasurers, and the same person may be surveyor and inspector of nuisances.

The duties are, of course, making, altering, discontinuing, cleansing, and emptying sewers and drains.

No new house is to be built without drains and privies, and old houses must be provided with them.

Streets are to be cleansed, places provided for the deposit of dirt, soil, &c.; offensive ditches and drains to be covered. Fireplaces and fac-

ories to consume their own smoke; and no new slaughter-houses to be permitted without the licence of local boards.

The general board must be satisfied that sufficient ventilation has been provided in all new public buildings; and lodging-houses must be registered by the local board. Restrictions are put on the use of cellars as abodes.

The local board may provide places of public recreation, and sufficient supplies of water, and may erect waterworks, &c.; but to contract in the first instance with water companies willing to supply their district; and not to lay down water in streets already supplied, &c.

Compulsory supply of water in certain cases. No new house to be occupied until provided with means of supplying water for domestic use, drainage, &c.; and all houses to be properly supplied with water for all such purposes.

Premises for the reception of the dead previously to interment are to be provided.

Depth of soil above coffins is fixed.

Burial-grounds, &c., dangerous to health, to be shut up.

Interments within churches or burial-grounds, newly erected or formed, are not to be permitted.

The other enactments refer to the raising of rates, and to other similar matters of no special interest to our readers.

REGISTRAR GENERAL'S QUARTERLY REPORT.—EPIDEMIC INFLUENZA.

THE fourth return for the quarter ending Dec. 31, 1847, of the mortality in 117 districts of England, has just been issued by the Registrar-General, and is a document more than usually interesting to the medical profession. Within the last few months Europe has been visited by a severe epidemic, and our own metropolis has especially felt its virulence.

Towards the latter end of November, after some singular atmospheric vicissitudes, the influenza commenced its ravages, and carried off the course of six weeks 11,339 persons. During the whole period the epidemic lasted, 5600 individuals died over and above the average mortality of the season. The greatest intensity was manifested in the second week of its course; raged with nearly equal violence through the third week; declined in the fourth, and then partly subsided; but, the temperature falling, the mortality remained high, not only through December, but through the month of January.

Those upon whom the disease appeared to exercise the most powerful influence were adults and the aged; in the three weeks of the epidemic ending Dec. 18 the deaths under the age of 15 were 2846. In the same two periods the deaths at the ages 15 to 60 were 969 and 1979; at the age of 60 and upwards, 576 and 1999. The mortality in childhood was raised 83 per cent., in manhood 104 per cent., in old age 247 per cent. From the age of 4 to 25, however, the mortality was comparatively not very much increased; at the age of 10 to 15, the healthiest period of life, it was scarcely increased at all—in girls.

It appears from the returns that not only were those enfeebled by previous disease subject to the attack of influenza, but also those of healthy and robust constitutions; these latter, however, from the energy of the vital force, were enabled to resist more effectually the epidemic, while the former more easily succumbed. The poison seemed to pervade the whole system, but affected chiefly the mucous membrane lining the sinuses of the face and head, and the air-tubes of the lungs. Hence those subject to asthmatic paroxysms died, when attacked, in con-

siderable numbers: the deaths ascribed to asthma in October and November were 12 weekly; in the six weeks of the influenza epidemic, 77, 86, 78, 62, 14, 26, besides the numerous cases classed under influenza. The deaths ascribed to bronchitis in the week ending October 30 were 36, and in the nine following weeks, 49, 68, 61, 196, 343, 299, 234, 107, and 138. The deaths ascribed to pneumonia during this time were, 62, 68, 72, 95, 170, 306, 294, 189, 131, and 148. In some of these cases the inflammation specified was the primary disease, in others secondary, and in many it was influenza—misreported. The Registrar-General remarks from these circumstances, that "there is a strong disposition among some English practitioners, not only to localize disease, but to see nothing but a local disease; hence, although it is certain that the high mortality on record was the immediate result of the epidemic influenza, the deaths referred to that cause are only 1167; viz., in the first week of November, 2, and in the eight weeks following, 4, 4, 36, 198, 374, 270, 142, 137; and these include nearly all the cases in which influenza was returned, whether as primary or secondary, in conjunction with other diseases." A similar defect has hitherto been found in the returns of all great epidemics: in 1665, the great plague year, 97,306 burials were returned; in the London bills of mortality, only 68,698 of which were ascribed to plague. In 1847, attached persons labouring under zymotic diseases; thus the deaths from hooping-cough, rose from 12 and 26 to 65 and 71 during the epidemic; the deaths from measles rose from 42 to 86, 89, 69, 75, during the first four weeks of the epidemic; and then subsided to 21 and 62. Typhus, which had been fatal to 70 and 80 weekly, rose to 122, 136, and 131, in the second, third, and fourth week of the influenza epidemic, and then fell to 88 and 74. Although influenza is not mentioned in these cases it is in others, and there can be little doubt that two or more zymotic processes do often go on simultaneously in the blood and body; a fact of profound interest to the pathologist, and worthy of attentive investigation."

The epidemic, as might be expected, proved more severe in some parts of London than in others; thus its fatality in Lewisham and St. George's-in-the-East was as 1 to 4. This latter district is one of the most unhealthy in the metropolis, in consequence of the filth and wretchedness in which the poor are compelled to pass their lives. In many parts there is no drainage whatever, and sometimes the lower parts of the houses are flooded with water, which, when it recedes, leaves a disgusting accumulation of organic matters in a state of decomposition. Under certain conditions of the atmosphere these, undergoing transformation, produce disease.

The meteorological phenomena were particularly remarkable prior to the breaking out of the influenza. The wind, from the first week in October, had been blowing S.S.W. and S.W.; the weather was very warm; a brilliant aurora was seen, and shook the magnets on the 24th of last month; it appeared eight times during the quarter. On the 16th of November there was a remarkable gloom; the wind changed to N.W., and, amidst various changes, still blew from the north over Greenwich at the rate of 160 and 250 miles a day. The mean temperature suddenly fell from 11° above to 10° below the average. On Monday it was 54°; Friday, 32°; the air on Friday night 27°; the wind was calm three days,

and on Saturday a dense fog prevailed over the metropolis for five hours. No electricity was perceptible during the week. On Sunday, clouds and damp prevailed, the wind changed in the night to S.E. by E., and passed four days over Greenwich at the rate of 200 to 300 miles daily; the temperature suddenly rose, and remained from 2° to 9° above the average through the week ending November 27, when the influenza became epidemic. Extreme cold never increases the weekly mortality in London above 1500; extreme heat still less; intermediate changes slightly. The November fogs do not give rise to influenza.

The reports received from the provincial registrars show that the epidemic prevailed in most places at somewhat later periods than in London, and that it put on a milder character. At Edinburgh, Dr. Stark states that it suddenly made its appearance, attacking large numbers of the inhabitants, twice during the month of November, on the 18th and 28th. On the last occasion severe frost prevailed, with a damp atmosphere and thick fog, which supervened after a few days of very cold weather. The mean temperature of the city was in December, 39°; the highest 57°, the lowest 21°.

In Paris it appeared about the 4th of December, affecting nearly half the population. At Madrid 5000 of the inhabitants were laid up on the 11th of January. The Registrar-General has been furnished by Sir William Burnett with returns of the epidemic on foreign stations, by which it appears that in January and February, 1847, it prevailed on the coast of Portugal and south-east of Spain; January, February, and March, in Newfoundland and New Zealand; February and March, at Valparaiso; April, coast of Syria; July, August, and September, west coast of Africa, south of the equator; August, Hong Kong.

An interesting account is given of the different influenza epidemics which have prevailed in England. The years marked by these visitations were 1728, 1733, 1743, 1758, 1762, 1767, 1775, 1782, 1788, 1803, 1831, 1833, 1837, and 1846-7.

There can be little doubt that, by the carrying out of efficient sanitary measures, the fatality of epidemics in London and other large cities may, to a great extent, be prevented. The Registrar-General warmly espouses this doctrine, and laments that the efforts of her Majesty's Government to introduce such measures were, during the last session of Parliament, strenuously opposed. We look anxiously, but hopefully, to the future. There is a prospect of the abolition of cesspools, the better construction of sewers, and the building of more convenient dwellings for the poor. Sanitary reform, however, cannot be perfect till the tax on light and ventilation be abolished. If Ministers should refuse this, after all they have said and done on behalf of public hygiene, their conduct will be thoroughly inconsistent with their protestations, and they will be universally considered the greatest enemies of the cause they advocate.

USE AND ABUSE OF CHLOROFORM.

The death of Hannah Greener, while under the influence of chloroform, has produced much excitement, both amongst the members of the medical profession and the public. As might have been expected, it has roused those who have felt prejudices against anæsthetic agents to state more boldly that they will not prove such great boons to suffering humanity as was

at first expected. No fatal case from the use of chloroform, that we know of, had occurred till the one we recorded two weeks ago in our pages, though surgeons in every part of Europe have almost daily employed it. So accustomed have we been to hear of operations performed upon patients under its influence, from the extraction of a tooth to the amputation of a limb, without any fatal results, that had it not been for the death of the young girl at Whickham, chloroform was in danger of speedily losing the charm of novelty. The unfortunate event referred to, however, instead of causing this powerful agent to be laid aside as too dangerous to be used in the practice of medicine and surgery, will only make the members of the profession more cautious in its application.

Dr. Meggison, under whose direction the chloroform was administered to the unfortunate young girl, is acquitted of all blame by every enlightened and well-disposed member of the profession, as he not only gave it to the patient with caution, but endeavoured promptly to sustain the drooping vital powers when symptoms of danger manifested themselves. That there was some peculiarity in the constitution of the girl which produced them can admit of little doubt, as greater quantities have been administered to younger patients, and they have been kept under its influence for a considerable length of time, without any injurious consequences resulting.

It is evident, however, from the facts which we have from time to time published, that in some constitutions a very small dose will produce convulsions, in others hysterical paroxysms, in others fainting and sickness; practitioners, therefore, must be especially careful of the quantity and manner in which this powerful agent is employed.

The death of the girl Hannah Greener, from the direct influence of chloroform has been, however, called in question by Dr. Simpson, of Edinburgh. We published last week his opinions on the case. He remarks, "It evidently appears that the girl fell into a state of syncope at the time of operating. The syncope might result from the operation, or from the chloroform, or from both. I have seen in a few rare cases such a blanched state of the lips come on under the use of very powerful and deep doses of chloroform, simulating syncope, and the respiration temporarily suspended; but these symptoms always readily disappeared, and the patients speedily recovered, by simply removing the chloroformed napkin from the face, and letting them alone; and I most sincerely and conscientiously believe that such, also, would have been the result in this unfortunate instance if nothing more had been done." The brandy and water administered by the surgeon, Dr. Simpson considers the immediate cause of death, "as much as if the whole head and face had been submerged in the same fluid."

Since the above fatal case, another has occurred at Aberdeen, not by administering the anæsthetic agent for the laudable purpose of assuaging pain under a surgical operation, but in consequence of an individual inhaling to produce excitement and pleasurable sensations. The person who became the victim of his own folly was a youth, seventeen years of age, and apprenticed to a chemist. He was known to have inhaled chloroform on several occasions, and in consequence of his propensity the bottle was hid. On the morning of his death, having discovered it, he was seen

About midday pouring a quantity of the anæsthetic agent on a towel and applying it to his mouth. When insensibility was produced, he appears to have fallen forward with his face on the towel. In this position he remained about ten minutes, and when raised was apparently dead. The efforts of the medical gentlemen called in produced not the least sign of returning life.

The fatal issue in this case was probably brought about by suffocation, the youth having been unable to remove from his face the towel, in consequence of the rapidity with which insensibility came on. That there was a considerable quantity of chloroform inhaled there is little doubt, though the exact amount is not known, and it might have proved fatal even if the deceased had not fallen in such a manner as to impede the action of the lungs.

That this anæsthetic agent is used by very many individuals of both sexes for the purpose of producing pleasurable sensations admits of little doubt, and as little that with the greatest facility it is furnished to them by many chemists and druggists for a certain sum per ounce. Nor will the Aberdeen case deter the *unlawful private* practitioners from administering in future the vapour to themselves, any more than the Whickham case will the members of the profession from giving it to patients when about to undergo a painful operation. Chloroform, however, is not an agent to be carelessly exhibited, and medical gentlemen must closely watch its effects.

WAKLEY AGAINST THE MEDICAL TIMES.

Our readers know that four or five years ago we bore the brunt of an action, which rested on the publication of a letter signed "Vindicator," suggesting to the member for Finsbury the possible uses of a Court Medical. The jury, after two hours' deliberation, returned a verdict for £150, being exactly the one-fifteenth part of the sum the M.P. asked as an equivalent for his injured character.

We reported the trial, giving, as a part of it, the celebrated letter the cause of all.

Although that report was fair and true, it was made the subject of a fresh action, which, commencing in 1846, was, after many hesitations and doubts, tried in 1847; and then it was oddly enough contended that we had no right to let our readers know the whole merits of the case we reported. The jury, under the direction of Chief Baron Pollock, adopted that startling and illiberal opinion, and gave £175 damages. There was here, however, a principle at stake of value to independent journalism. We moved, therefore, for a new trial, relying for its concession on the judge's misdirection. The judges being equally divided, the decision was, as is the rule, not for us, but against us. We were yet not content: we sued out a writ of error, for we were determined to test the illegality in the highest court of judicature. Again we were disappointed. A recent case, involving substantially the same merits, had been decided against our views, and to argue the matter further would be vexatious without advantage, and costly without dignity. The plaintiff took, therefore, when the case came on a day or two since, an unresisted decision.

In the former case we paid the honourable coroner £150 damages, and about £80 costs, for his character. In the present, we have paid £175 damages, with about as much more as costs.

The following is the receipt that testifies to this curious transaction:—

"Received this 17th day of February, 1848, of "Mr. Healey, the sum of £362, the amount of "damages and costs in the above action, as under:

"	£175	0	0	damages.
"	124	8	0	costs in the action.
"	55	8	0	costs in error.
"	0	13	0	ditto in bail.
"	355	4	0	
"	6	16	0	interest upon judgment.

"£362 0 0"

(Signed) "Lofty, Potter, and Son, plaintiff's attorneys."

We have thus had the contentment of paying about £600 for what must now be looked on as a well-paid-for *bijou*—the West Middlesex coroner's character. While we have the authority of two juries that the money is worth the character, we are not anxious to deny that the character is worth the money; still, whatever rights we have secured in this novel stock-in-trade, we are ready to part with on much easier terms.

Although we have thus enabled Wakley to turn character to a use, and extract from it the valuable services of a marketable commodity, we have no regrets to make, and no repentance to avow. We did what we considered a public duty; and we did it as we felt, and still feel thoroughly, fearlessly, and conscientiously. The sensitive plaintiff has gained £325: the defendant has lost little, and the profession has profited largely. The associated bubbles have broken—the calamitous position of medical leader is gone—the profitable despotism of unprincipled journalism is vanished; and thousands of pounds in cash, and ten times its worth in position, are the costly purchase-money that was paid for the paltry allowance we have willingly immolated in this saving service to the profession.

MEDICO-LEGAL STATE TRIALS.

We are requested to announce that under this heading an elaborate work is in preparation for the press. It will be published monthly with the magazines, in parts, price half a crown each, and the work, it is expected, will be completed in from six to twelve numbers. The first part, of whose completion very full notice will be given, will contain the fullest details, with comments and explanatory notes, of two of the most extraordinary cases known to medico-legal annals, namely:—

1. The GARDINER PEERAGE CASE, decided by the House of Lords in favour of the petitioner.

2. The case of WAKLEY AND THE HOPE INSURANCE COMPANY, tried in the Guildhall, London, in 1821 (June 21).

We have only to add that this important public duty has been confided to hands which guarantee as careful and efficient execution as the friends of medico-legal justice can desire.

MEDICAL TREATMENT OF THE POOR.

Lord Ashley proposes to move the following resolutions, founded on the evidence taken before the Medical Relief Committee in 1844:—

1. That it is the opinion of this House, that the poor-law commissioners should cause a list to be made out, by the proper officer in each parish of a union, of the poor who may be entitled to attendance from the medical officer of the union; and that all such persons shall be at liberty to ask for assistance, without previously obtaining an order to that effect from the re-

lieving officer, overseer, or other person, when so seriously ill as to be unable to leave their homes. That the poor thus applying shall not be entitled to such medical attendance beyond twenty-four hours, unless they obtain the signature of the relieving officer to the printed order usually issued by him to the surgeon; but which printed order shall in such case be given by the surgeon to the poor man in the first instance, to be carried by him or his friends to the relieving officer for his information and counter-signature, as an acknowledgment of the fact of such medical relief having been asked for and obtained.

2. That all casual poor requiring medical attendance be treated in a similar manner, the surgeon being at liberty to refuse further attendance if the counter-signature of the relieving officer be not obtained.

3. Every woman claiming medical assistance from the parish in consequence of being pregnant shall be entitled, in all cases, to the aid of the medical officer with her first child, and also with the second or others which may follow, provided she present a certificate from the medical officer who attended in her previous confinement, stating that circumstances had occurred in it out of the ordinary and natural course of events, which render it desirable that she should have medical attendance on the next occasion of delivery.

4. That, in the event of its being necessary to destroy the child in order to save the life of the mother, the union surgeon shall be at liberty to seek the assistance of another competent practitioner, if he sees fit, before the necessary operations are performed, and who shall be paid for the assistance rendered, on producing to the union or proper officer the joint certificate of the union surgeon and himself that such consultation and aid were essential, previously to the expected legal and necessary deprivation of life.

5. That no medical person be appointed surgeon or medical officer to a union unless he possess a diploma in surgery, and a degree, diploma, or licence in physic, from one or other of the Universities or Colleges of Physicians or Surgeons, or Societies of Apothecaries of the United Empire, legally entitled to grant respectively such licences, diplomas, or degree; and that if, under any circumstances, it should be found necessary to employ unqualified persons, such unqualified persons must have a special permission granted by the poor-law commissioners, under their handwriting, with the reasons for such permission annexed; all such permissions to be annually laid before Parliament at the commencement of the session.

6. That from and after the month of March next, the appointment of medical officers of unions shall be permanent during good behaviour, they being removable only by the poor-law commissioners, whose decisions shall be final.

7. That it is expedient that medical inspectors be appointed by the poor-law commissioners, or by the Secretary of State, or with his sanction; one to each district to which an assistant poor-law commissioner or inspector is attached, at a salary not exceeding four hundred pounds a year, exclusive of travelling expenses, and exclusive of an allowance of a clerk, if the duties should require one.

That the duty of the medical inspectors should be to inspect and report on the medical treatment of the poor of the different unions, and on the fitness of the medical men appointed by the unions; to inquire particularly into the treatment of the sick poor in the union-houses, and to regulate such treatment; to inquire into and report on the diets and healthful condition of the poor within them generally, together with such other sanitary duties of every kind as may be required of them by the Secretary of State, or by the poor-law commissioners; and particularly with respect to the number of medical officers who ought to be employed in each union, and the salaries which ought to be awarded to them for their services in each particular union, or part of a union, in the district.

DR. LEE AND THE NERVES OF THE HEART.

[To the Editor of the Medical Times.]

SIR,—Dr. Hunter once said, on a very solemn occasion, "that men of science live like devils." Limited as my personal intercourse has been with such men, I have, in the last thirty years, seen enough of them to know that Dr. Hunter was quite right.

My own humble name stands prominent in a huge volume to authenticate one of the biggest lies that ever was fabricated. I saw the matter in proof, and hastened to tell the author that he had made a mistake, detailing to him, at the same time, the particulars of the case. Out the case came, however, just as it was when I saw it in proof, without the alteration of a single word. The "man of science" made a great reputation by that book. It is to this day a work of authority in a certain branch of the profession, though, to my own knowledge, the case to which I have alluded is not the only one misrepresented in it. Coining cases is the commonest thing going with your "men of science;" and I would suggest to young practitioners not to be too ready to give credit to your rare and marvellous cases, and to be careful not to follow with implicit faith the plans of treatment laid down by the publishers of such cases.

I had once under my care an old woman with a fracture of the neck of the thighbone within the capsule. The case was singular and obscure, and at the first glance, and without a most careful examination, any surgeon would say it was a case of dislocation; for the limb was elongated, and the great toe turned inwards very considerably. I satisfied myself by a lengthened and careful investigation of the nature of the case, and was sure that it was a fracture of the neck of the femur within the capsular ligament.

It so happened that the day after the patient was brought in, a great surgeon, one of the heads of the profession, visited the infirmary. I called his attention to the curious case. He at once pronounced it a dislocation. I said no, that it was a fracture of the neck within the capsule. "Poh! man, impossible;" and with that he set to examine. He persisted in his opinion with an air of infallibility that soon threw my opinion overboard with the pupils. It came to pass, however, that the patient died soon after. The bone was taken out by the pupils in my presence, and the fracture within the capsule was discovered without a dislocation. I wrote to the big man, crowing a bit upon my triumph, telling him at the same time that the bone was in maceration at the infirmary, where he could see it. He called the next day, in my absence, ran away with the bone, and had the case in print in twenty-four hours after, not failing to tell of his own cleverness in detecting in a twinkling the real nature of the case, deceptive as the appearances were. But that was not all. He exhibited the preparation at the Medico-Chirurgical Society, and appealed to my colleague, who was there, for the truth of the lie he was telling.

There are always lurchers and poachers in the field of science. No man's manor is safe from them. It is well known that Lavoisier ran away with the fame that belonged to Watt for the discovery of the elements of water.

Home (Sir E.) made his reputation as "a man of science" out of the unpublished papers of John Hunter; and I have often heard it hinted that, if Hunter could burst through the ceremonies of the tomb and revisit this world, he would say of the celebrated experiments upon poisoning with arsenic, &c. &c., published in "The Philosophical Transactions" of 1812:—

"Ego feci
Alter tulit honores."

Those experiments established abroad for one of our most eminent surgeons the reputation of a "man of science."

But there are hundreds of instances where "men of science" have been detected rushing into print with other men's ideas, and passing them as their own.

I recollect, many years ago, M. Dijesnette, in a familiar conversation, was communicating to a few of us students, in one of the parlours at the School of Medicine, his views upon some disputed points in physiology. Richerand came in, upon which Dijesnette stopped suddenly. "Let me not interrupt you," said Richerand, "pray proceed." "Not whilst you are here," said Dijesnette, "for you would print my opinions, and publish them as your own." "Eh bien!" retorted Richerand, laughing, "your opinions would then have some weight with the profession!" Richerand was a famous poacher. A hint

was enough for him; he was ready at the pen, and printed as fast as he wrote, to establish priority of publication.

In 1832, when the cholera was making sad ravages in this country, I was an invalid, and was dreadfully afraid of it. I took it into my head that it was caused by something afloat in the atmosphere; and my own secretions, and those of many others which I examined, being surcharged with acid, I took it for granted that the atmosphere was tainted with gas or effluvia morbidly acid, that excited the disease. It was only a guess, yet I took antacids in large doses, and recommended them to others as prophylactics.

In the course of a casual conversation I told an eminent physician, a great author and "man of science," what I had been guessing and cogitating upon the subject. In a week after I saw all my guesses and crude suppositions in print, as the philosophical inductions of this great man, for whom a great chemist had analyzed the atmosphere, in which he detected the presence of an acid vapour.

The *débat* with which this discovery was received filled me with scientific pride; and I can assure you, Sir, that it is the proudest and most overbearing of all pride. I began to think that, *malgré moi*, I was a "man of science;" that I had always underrated myself; and that all I wanted to make a great reputation was a stock of impudence.

Impudence, it appears, is as necessary an ingredient in the character of your modern "man of science" as the spirit of revenge was held to be in the character of a great man by the ancient Greeks.

Dr. Lee, if the allegations against him be well founded, surpasses all men that I have ever heard of in brass and impudence. Strong, indeed, must the nerves of his heart have been if he made the attempt imputed to him to impose upon the Royal Society in so barefaced a manner.

Dr. Lee has made some character in the science and literature of the profession, but all his works will fall into disrepute, and his alleged discoveries will require further confirmation, if the crime against science and morality with which he is charged be proved against him. The question is one of vast importance. The Royal Society is implicated in it, and must necessarily institute a formal investigation of the matter, for in the face of Europe it cannot be allowed to rest where it is. Has the Royal Society the power to expel its recent members?

If Dr. Lee be found guilty, what will the College of Physicians do? What will the Medico-Chirurgical Society do?

The whole body of the profession is interested in this business; for reputations thus surreptitiously acquired by unprincipled men give them an undeserved eminence, and an advantage over their more honest and deserving confrères.

I have the honour to be, Sir,

Your constant reader,

London, Feb. 10.

M. D.

DR. ROBERT LEE AND HIS ACCOMPLISHED ARTIST.

[To the Editor of the Medical Times.]

SIR,—I am at a loss to conceive what could have induced Mr. West to have come forward and addressed to you a letter on Dr. Robert Lee's discoveries of nerves of the heart. He evidently wishes to impress your readers that he has not been a *particeps criminis* by introducing into his drawings what he never saw with his own eyes, but what the great anatomist, Robert Lee, must have told him he ought to see and delineate. If this artist had really been desirous to lend his aid and give his testimony to the Physiological Committee of the Royal Society, in exposing the mistake which Dr. Robert Lee took so much trouble to attempt to palm upon them, he would have come forward in an open and manly manner, and stated distinctly the directions he had received from the "great discoverer," and thus exculpated himself from all blame; in place of which he attempts to throw a veil over the whole of the transaction, and giving no further explanation than telling us he is merely "an artist, not an anatomist." No one, I am assured, has accused him, as he asserts, of either "carelessness or wilful neglect;" but no one can possibly acquit him, judging from his "letter," of not being aware that the drawings had been "corrected by the anatomist himself." JUDEx.

University College, Feb. 12.

HOW TO EXAMINE A FELLOW.

[To the Editor of the Medical Times.]

SIR,—An incident occurred at one of the late fel-

lowship examinations at the Royal College of Surgeons, which calls for interposition on the part of the proper authorities, if there be any such, who exercise a control over the conduct of that body.

One of the candidates was required by one of the Court of Examiners to tie the ulnar artery, but, not proceeding satisfactorily, the examiner, one holding a high post, interfered, and proceeded to complete the operation, which he accomplished by tying the ulnar nerve instead of the artery.

Had the candidate, and not the examiner, made this mistake, it is most probable that he would have been rejected.

Permit me to ask, Sir, why the college authorities do not make some arrangement regarding the retirement of those members of the court who have become incompetent from age to perform the duties for which they are so liberally paid? Are we still to be treated with similar exhibitions to those which disgraced the college during the senility of Sir William Blizard, Abernethy, and Sir Anthony Carlisle?

Her Majesty grants a new charter to the college, and forthwith it becomes the ridicule of the profession in consequence of the imbecility of those appointed to carry it into execution.

If any doubt should be cast on the statement, I beg to refer the incredulous to the college demonstrator, who called the attention of the learned examiner to his blunder.

Mistakes will occasionally occur to the most able, but such should be arrested, as far as possible, by the appointment of examiners whose years have not rendered them physically incapable.

Your very obedient servant,

Feb., 1848.

SCRUTATOR.

THE FATAL CHLOROFORM CASE.

[Dr. Wigglesworth, of Swansea, has addressed through us a letter to Dr. Simpson, controverting his view of the cause of death in the case of Hannah Greener. After adverting to the professor's opinion that the patient died from suffocation, he says:]—

Without entering into the question whether breathing was possible or not, or whether the patient did or did not, could or could not, swallow, I have no hesitation in stating that, in consequence of the "state of syncope," the "weak and torpid state," into which the girl had fallen, the necessity for breathing was reduced to a minimum, and that even its complete absence in this state would not satisfactorily account for death in three minutes, or twice three, or three times three.

You appear, Sir, to have fallen into the error of considering that air is as much required for the arterialization of the blood, and for the maintenance of the functions of life, in the state of syncope, as in the active condition of the body—when the functions are suspended as when they are active; for how otherwise can we account for your attributing the death of a fainting person to asphyxia in a period actually short of that which is required when the body is healthily acting.

I do not know any authority to whom I can better refer for proof that there is a wide difference in this respect than Dr. Carpenter, the gentleman whose writings you have drawn upon to prove that this poor girl was "choked or asphyxiated" by the brandy and water.

The following extracts are taken from "Carpenter's Principles of Physiology," 3rd edition, sec. 178, and the same author's "Manual of Physiology," sec. 707. As to the time required for producing death by asphyxia in an active animal, Dr. Carpenter says, "It may be stated as a general fact that, if a warm-blooded animal, in a state of activity, be deprived of respiratory power, its muscular movements, with the exception of the contraction of the heart, will cease within five minutes, often within three; and that the circulation generally fails within ten minutes." The chief exceptions are then mentioned, viz., divers, whose power of remaining under water is "acquired by habit;" also diving animals, such as the whale, whose structure fits them for keeping below the surface; after which Dr. Carpenter continues as follows:—"Another exception exists in the case of hibernating mammals, which are reduced for a time to the condition of cold-blooded animals, and which can, like the latter, sustain a prolonged suspension of the aerating process; and there is reason to believe that in the state of syncope or fainting, in which the circulation is already reduced to a very low amount, in consequence of a partial failure in the heart's power, all the functions of the body being nearly suspended, and the demand for aeration being consequently small, the respiration may be suspended for a long period even in the human subject

without fatal results. Thus, more than one case has been credibly recorded, in which recovery has taken place after a complete submersion for more than three quarters of an hour; and it is probable that in these instances a state of syncope came on at the moment of immersion through the influence of mental emotion or concussion of the brain."

Now, if we turn to your own description of the case of this poor girl, we shall find that it agrees almost to the letter with the above quotation—that all the conditions necessary for a protracted suspension of respiration without death resulting were present. You say, it evidently appears that the girl "fell into a state of syncope at the time of operating," with the "respiration temporarily suspended," and that in this condition, instead of "letting her alone," brandy and water were allowed to run in and fill up the pharynx, "producing the same results as if the whole 'head and face had been submersed in the same fluid,'" or, in other words, that the patient's condition exactly resembled that of a fainting person, and hence, from what we have said, that she was actually in the very state in which, instead of dying directly, she ought to have lived for a protracted period—of all conditions the most favourable one for the continuance of life without the continuance of the respiratory process.

The question, then, naturally suggests itself, and perhaps you will favour the profession with the reply,—Why was life in this case almost instantaneously extinguished when the conditions were all favourable for its prolongation?

It appears to me, that the quotation you gave from Mr. Guthrie's work does not in any way support your view. Mr. Guthrie merely says that fluids put into the mouth "might possibly enter the larynx and destroy." He does not say that it would be quite sufficient to destroy a fainting person in two minutes. Indeed, if such were the fact, how is it we have not coroners' inquests on similar cases every day, for surely nothing is more common than to put a "little brandy" and water into the mouth of a fainting person?

Having, therefore, by reasoning on the materials furnished by yourself, deduced, as I think, the "self-evident conclusion," that your view of the cause of death, instead of being satisfactory, is quite the reverse, let us turn from the irrational to the rational—from the unlikely to the likely. And, at the commencement, I would say, that it seems at first sight far-fetched to attribute death to a little brandy and water, of which probably as much was rejected by the mouth as was received into the pharynx, when the patient had just been inhaling a powerful narcotic poison.

I believe, indeed, with the jury, with Drs. Meggison and Glover, Sir John Fife, and all those who, being immediately connected in the case, were best calculated to form a correct opinion, that the poor girl died from the effects of chloroform, and nothing else; and I further believe that the great majority of the profession will not be led into the adoption of another creed. Is it probable, I would ask you, that, if the patient had been suffering from syncope only—the chloroform producing no deleterious influence—she would have parted with life as easily as she did? Her state could not be compared with that of submersion, for the liquid which "filled the pharynx" was capable of being readily displaced; and, although it might have been "partially drawn into the larynx," yet air would certainly have been drawn in too, sufficient to have prolonged life, if not to have saved it. I think, indeed, that "simple asphyxia" could not possibly have been produced without a powerful struggle, and that the girl, admitting all you assume to be correct, could only be partially, and not entirely, excluded from air.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Continued from page 319.)

(John Ayrton Paris, Esq., M.D., President of the Royal College of Physicians, London, called in, and Examined.)

THE COLLEGE OF PHYSICIANS AND THE BILL.—I am president of the College of Physicians. My attention has been directed to the bill which is now before the House of Commons, introduced by Mr. Wakley and Mr. Warburton. Our college in its corporate capacity has petitioned against that bill. The bill has been considered by the corporate body over which I preside. The governing portion of that body has repeatedly considered it. The governing portion of

that body is a special committee appointed by the college, for the purpose of examining and considering the various clauses in the bill, and that committee went into an examination of it. The vote of the college appointed that committee. I refer to the college at large; at the *comitia majora*, or general meetings of the body, it is usual for the president to propose the names of gentlemen for a special committee, who are then balloted for and elected by the college at large. I am not clear as to the exact number of members of the college who were present at the *comitia majora*, at which this committee was appointed, but I should say about forty or fifty, or perhaps more; not exceeding sixty. The most active and the most eminent were present on that occasion. The committee was a large committee, and then that committee was found to be too large for practical purposes, and a sub-committee was formed, and that sub-committee consisted of (I will mention, if you please, the principal names) the president of the college, Dr. Burrows, Dr. Latham, Dr. Holland, Dr. Todd, Dr. Watson, and the registrar, Dr. Francis Hawkins; so far as my recollection serves me, those were the gentlemen who principally attended. That committee reported to the college from time to time. The petition to Parliament against the Medical Registration Bill was adopted in consequence of that report. It was a petition, formally speaking, presented by the president and censors of the college, with the concurrence of the college, but it is not the petition of the college at large; it was not deemed necessary to present a petition from the college at large; it would have caused unnecessary trouble, and it was well known what the sentiments of the college were; it was therefore considered that the petition might be entrusted to the president and the four censors as representing the college upon this occasion. The committee, after having agreed upon the report, did not bring that report, through me, under the consideration of the *comitia*. The report being presented, was not brought under the consideration of the college. We have had repeated meetings, and the bill has been considered in various ways, not only at the meetings of the committee, but at the *comitia majora* of the college; it has been thoroughly sifted, and the opinion of the college has been expressed in the petition which has been presented to the House. The petition, therefore, may be considered as containing the deliberate objections of the college to the bill now before Parliament.

THE COLLEGE IN DANGER FROM THE BILL.—We stated in that petition, "That by clause 9 of the bill the charter of the College of Physicians would be in great part, if not wholly, abrogated, and the college superseded in all its important functions." It is quite obvious, from this clause, that the charter of the college, and all the laws by which that charter is supported, will be abrogated. The terms of the clause are these:—"So much of any act or charter granted before the passing of this act as prohibits any person from practising medicine, physic, or surgery, in any place, without such licence as is mentioned in any such act or charter respectively, or that imposes any restriction or penalty on the practice of medicine, physic, or surgery, further than is contained in this act, shall be, and the same is, hereby repealed." That takes away, of course, all the powers of the college, as to the supervision and examination of physicians, and all the functions of the college which are so important to the welfare of that branch of the profession over which the college presides. The functions which the college now, under their charter, exercises, which, I contend, would be superseded by the enactment in clause 9, are, the power of examining physicians then would be taken away; and, on examining the other clauses of the bill, it is very evident that no physician would come to us; it would not be necessary for him to come, inasmuch as he would be licensed by other means.

CHARTERS OF THE COLLEGE.—We have had various charters, but the one we act under is that

of Henry VIII. That has been confirmed by act of Parliament: an act of the 14th and 15th of Henry VIII. The powers confided to the college under that charter so confirmed by act of Parliament, which has endured from the act of Henry VIII. down to the present time unrepealed and unaltered, are a jurisdiction of the college at large over London and seven miles round; so that no physician can practise within that magical circle without the authority of the College of Physicians. Then there is another important function discharged by the president and the elects of the college; we have the power of licensing all physicians in the provinces, with the exception of the graduates of Cambridge and Oxford; the medical degrees of Cambridge and Oxford confer the privilege of practice upon physicians in the provinces, and the president and elects of the College of Physicians have the power of licensing physicians in the provinces, but not in London; the jurisdiction over London being left to the college at large. The practice in the metropolis and in the circle seven miles round the metropolis is controlled exclusively by the College of Physicians; and throughout England and Wales no physician can practise *qua* physician except under licence from the College of Physicians, or by a degree granted by one of the two English universities. That is the present state of the law. Under that state of the law the public in England and Wales have this security for the competency of a physician in England and Wales, that his efficiency has been tested by the College of Physicians or by one of the two English universities. And from the time of Henry VIII. down to the present period that security has existed, and now exists. Those are our rights under the charter; we license all physicians in England and Wales who are not graduates of the universities, who present themselves for examination; and we feel it our duty, if any new parties appear in London, with respect to whom we have sufficient evidence of their acting as physicians, to call upon them to come before the college, and to show their qualifications for practice and to undergo an examination.

EXAMINATION OF PHYSICIANS.—If they come, the examination consists of written answers to certain papers; a paper is given to them containing a number of questions in physiology and anatomy and in the practice of physic, and of passages from ancient medical writers, which they are called upon to translate; they are placed in a room with nothing more than paper and pen and ink, with a beadle at the door, so that they have no access to books, and for three successive mornings they answer those questions in the best way they can; those papers are then examined, and we proceed to a *visd voce* examination; that *visd voce* examination is divided into three parts: the first is upon anatomy and physiology; the second is upon pathology; and the third is upon therapeutics, or the art of curing disease. There are three distinct examinations, which are conducted before the president and four censors. The four censors are annually chosen, for the purpose of examining, and for the performance of other duties; the parties are examined in Latin and Greek.

RECUSANT PHYSICIANS.—We have a legal power, but, unfortunately, we have not the means of punishing the recusant physician who practises, and who, when summoned, refuses to attend. We have frequently done so, and when we have done so we have succeeded; but the expense of the prosecution and the difficulty attending it is so great, that we trust to the force of public opinion in preference to the strength of the law. I should honestly say that I think there are very few respectable physicians practising in that way; but it is a question the committee will feel that I have some difficulty in answering.

POWER OF THE COLLEGE.—Extending my view beyond the metropolis of this kingdom to England and Wales, I have reason to believe that there are many physicians practising who have not been licensed by us, and who have not

graduated at Oxford or Cambridge. Our exclusive power of licensing, such as it is, can hardly be held to be operative under the statute. Besides examining physicians practising in London, and within a circle of seven miles, we have a moral power over them: if any licentiates or fellows of the college conduct themselves in a way which we consider unprofessional, we summon, censure, and fine them, and we consider that that is quite sufficient; we do not want any further power as to punishment. We have the legal power, if we think fit, of withdrawing his licence; but, independently of the legal power, we have the moral control of summoning him, and of admonishing him. That power has been exercised by our college even in modern times—very lately. I can state that at this moment there is a fellow of the college who is desired never to enter the building, and who has not done so for two or three years. It was in consequence of unprofessional conduct. He was then summoned, and he did not attend; he was summoned again, and told of the consequences if he did not attend. He was contumacious, and did not appear; and he was then visited by the penalty that I have stated, that he was not to come within the precincts of the college till he thought proper to submit himself, as he was in duty bound, to the college. We did not withdraw his licence; we contented ourselves with telling him not to come within the precincts of the college, he refusing to appear. But I must be allowed to observe, that when we admit a licentiate there is a form; the president admits him, and the president tells him at the same time, "You hold this licence only so long as you conduct yourself with professional propriety." There are no instances of the withdrawal of the licence on account of misconduct in late years; formerly there were; and at one time it was the practice to leave them out of the list of the college.

(To be continued.)

GOSSIP OF THE WEEK.

WAR-OFFICE, Feb. 4.—Assistant-surgeon William Augustus Heise, from the 35th Foot, to be surgeon, vice Johnston, who resigns.—35th Foot: William Henry Short, gent., to be assistant-surgeon, vice Heise, promoted in the 26th Foot.—Feb. 11, 7th Dragoon Guards: James Thomson, M.D., to be assistant-surgeon, vice Lock, killed at the Cape of Good Hope.—46th Foot: Assistant-surgeon William Smellie Johnstone, M.D., from 87th Foot, to be assistant-surgeon, vice Wray, who exchanges.—73rd Foot: Assistant-surgeon Joshua Paynter, from the Rifle Brigade, to be surgeon, vice Campbell, killed at the Cape.—87th Foot: Assistant-surgeon Christopher Wright Wray, from the 46th Foot, to be assistant-surgeon, vice Johnstone, who exchanges.—Rifle Brigade: John Riggs Miller Lewis, M.D., to be assistant-surgeon, vice Paynter, promoted in 73d Foot.

NAVAL PROMOTIONS.—Henry Edmonds, Thomas S. Wells, assistant-surgeons, to be surgeons.

NAVAL APPOINTMENTS.—To the Agincourt, John Dunlop, surgeon—Ernest Elliott, assistant-surgeon; to the Anna Maria convict-ship, Henry Baker, surgeon-superintendent; to the Blenheim, Abraham B. Bradford, surgeon; to the Caledonia, James Taylor, surgeon; to the Enterprize, John Robertson (B), surgeon; to the Powerful, Thomas R. Dunn, surgeon—Frederick Manger, assistant-surgeon; to the Queen, James Browne (B), surgeon; to the Collingwood, W. B. C. Christy, assistant-surgeon, confirmed; to the Raleigh, F. Morgan, assistant-surgeon, confirmed; to the Crane, George Ball, assistant-surgeon; to the Anna Maria convict-ship, Robert Stevenson, surgeon-superintendent.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on Friday, Feb. 11:—H. Gray, C. J. Evans, C. A. Lee, T. C. Maurilyan, C. Crowdy, J. S. Burd, J. Drew, J. W. Tripe, F. Manby, and R. Mason.

APOTHECARIES' HALL.—Gentlemen admitted members on Thursday, Feb. 2:—Charles Edward

Prior, Worcestershire; Harry Gardner, Somerset; William Richard Black, Lincolnshire; William James Blyth, Abergavenny, Monmouthshire, James Reed, Pontypool; Robert White.

THE LOCK HOSPITAL.—This asylum has extended its benevolence to 60,000 poor patients labouring under a disorder as contagious as it is loathsome and destructive. If the public reflect upon the vast amount of misery prevented, as well as actually remedied, by this institution, together with its important moral benefits in reclaiming so many who are not the hopelessly hardened, but the young, helpless, and uneducated, they will promptly respond to the appeal made to them in favour of this ancient charity, whose usefulness is not little limited by a debt now pressing on it, amounting to nearly £1000.

The appointment of Dr. Allen Thomson to the chair of Anatomy in Glasgow is understood to be quite settled, and will in due time appear in the *Gazette*. His appointment will vacate the chair of Physiology in the University of Edinburgh, for which several candidates have already appeared. The professorship of Clinical Surgery in Edinburgh still remains vacant, the Crown as yet having made no public announcement on the subject.

DINNER AT THE MANSION-HOUSE.—On Tuesday last the Lord Mayor (the newly-elected President of St. Bartholomew Hospital) gave an elegant entertainment to the treasurer (Mr. James Bentley) and the house-committee. Several of the governors and all the medical staff were present. Amongst the company were Aldermen Thompson, M.P. (president of Christ's Hospital), Farebrother, and Musgrove; Sheriff Cubitt, M.P., Mr. Ralph Price (treasurer of Bridewell Hospital), Mr. R. Baggaley (treasurer of St. Thomas's Hospital), the Rev. Dr. Russell (rector of St. Botolph), the Rev. W. Wicks (hospitaler of St. Bartholomew's Hospital), &c.

M. PAYAN.—A prize has been awarded to M. Payan, principal surgeon of the Hospital of Aix, for a dissertation on the employment of iodide of potassium. This is the second distinction obtained by that renowned practitioner.

IRISH MEDICAL SAVABBLE.—Two eminent physicians in Dublin are in a fierce conflict. In a late number of a medical periodical, one of the conductors charged the College of Surgeons with keeping up at a large salary a certain professorship which conferred no benefit. The gentleman alluded to replied in the *Medical Press*, that his antagonist, who is eminent in Irish antiquities, had acquired his character for antiquarian propensity, more particularly in reference to some recent excavations, the knowledge lavished on which was plundered from the academy. The question will be investigated at the next meeting of the Committee of Antiquities.

HEALTH OF TOWNS.—The Edinburgh Water Company have intimated their intention of availing themselves of the late Water Works Clauses Acts, so as to cause the owners of houses of £10 rent and under to be responsible for water duty. On houses of £6 and under, a fixed rate of 4s. per annum is to be charged, and ten shillings per pound on houses above. These rates are moderate enough, provided the act had at the same time compelled water companies to furnish a requisite amount of public wells, and as much water as would suffice for healthful cleansing; but they have a ludicrous appearance when exacted by a body which runs short of the pure element for months. The new Health of Towns Bill will not be complete, unless it establish a strict surveillance over aqueous corporations; the sanitary movement requires that means should be taken to prevent them from retiring within the fastnesses of their local acts, and so escaping account and reckoning when they fail in the performance of their contracts.

TURKISH GRADUATES.—The Sultan has addressed the Emperor of Austria by letter, to allow five Turkish medical students to present themselves for the degree of doctor in medicine at the

University of Vienna. This request was granted, and the five Turks, of the school of Galata-Serail, produced, and publicly defended, their theses in Latin, in the hall of the University of Vienna, when they were admitted to the degree, receiving the doctor's cap at the hands of the dean of the faculty of medicine.

ALLEGED DEATH FROM NEGLECT OF MEDICAL ORDERS.—In consequence of rumours that a child, aged seventeen days, the daughter of a railway labourer named Bell Horsfall, and whose wife was confined in Huddersfield workhouse on the 4th ult., had died from the want of sufficient nourishment, and had been interred, without certificate, in a coffin with the body of a young woman, about a fortnight since, the body was exhumed by order of the coroner, on Thursday last, for the purpose of a *post-mortem* examination being made, and an inquest was held 'the same evening. The inquiry lasted over three hours and a half. Three medical officers were first examined. The evidence of these gentlemen went to show that the child when born appeared very strong and healthy, and that it might have died from the want of proper nourishment. The child never had a drop of milk given it during its lifetime, and was fed with nothing but what the old women denominated "pap," made by pouring boiling water over a little white bread, and then sweetened with sugar, and given to the baby; and this, in the opinion of the medical men, was improper food for it: the mother's milk was the most natural food for an infant, and when deprived of that they should come as near to it as possible (which the milk and barley-water would be), as all milk would be too strong a curd for it. Some of the inmates of the house were examined, and corroborated the fact that the child had been fed with the sort of food stated, and nothing else, one of them observing, "It first had a little gruel given to it, but very little of that." Upon going to the surgeon for a certificate to register the child the following was given for the purpose of entering in the registrar's books:—"Ellen Horsfall, seventeen days old, last birthday; died Jan. 20, 1848; cause of death, inanition, or want of proper nourishment, the mother being ill of puerperal peritonitis. T. A. Bottomley, pro T. R. Tatham." The registrar receiving such a certificate very properly refused to register it until further inquiry had been made, well knowing that he durst not register it according to the surgeon's certificate. Mr. Tatham stated at some length the manner in which his various orders had been disobeyed. Several of the guardians were in the room, and Mr. A. Walker attempted to explain. Mr. Tatham stated, that in consequence of the utter defiance to his orders for more than twelve months, he had during the last six months taken notes of the particular instances, which filled several foolscap sheets, and which he had forwarded to the poor-law inspector, being quite tired of complaining to the board of guardians. The jury unanimously came to the following verdict:—"That the said Ellen Horsfall died from natural causes; and that the orders of Mr. Tatham, the attending surgeon, respecting the food of the said Ellen Horsfall had not been followed; and that the death of the said Ellen Horsfall may have been accelerated thereby. And the jury cannot separate without calling the attention of the poor-law guardians to the fact, that the orders of the medical officer are not attended to in regard to the diet of the sick poor, in this as well as in other cases."

OBITUARY.—On the 4th inst., at Smith's-place, Leith-walk, Edinburgh, Matthew Buchan, junior, M.D.—On the 5th inst., at Dalkeith, of typhus fever, John Hunter, M.D.—On the 7th inst., at Falmouth, of inflammation, William Paterson Banks, M.D., Royal Navy, surgeon of her Majesty's ship Crane, aged thirty years.—On the 31st ultimo, at Farningham, Kent, of chronic disease of liver, Edward John Ryan, Esq., surgeon, aged 47, to the great grief of his bereaved widow, and deservedly lamented by many friends, who justly appreciated his talents and his worth.

NOTICE.

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The subscription for the stamped edition of the *Medical Times* is 15s. for the half-year, and £1. 5s. for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

MORTALITY TABLE.

For the Week ending Saturday, Feb. 12, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1324	1107
SPECIFIED CAUSES...	1323	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	313	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	41	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	162	138
Diseases of the Lungs, and of the other Organs of Respiration.....	315	225
Diseases of the Heart and Blood-vessels.....	32	39
Diseases of the Stomach, Liver, and other organs of Digestion.....	73	62
Diseases of the Kidneys, &c.	11	9
Childbirth, Diseases of the Uterus, &c.....	15	13
Rheumatism, Diseases of the Bones, Joints, &c.	6	8
Diseases of the Skin, Cellular Tissue, &c.	3	1
Old Age.....	71	79
Violence, Privation, Cold, and Intemperance.....	26	31

TO CORRESPONDENTS.

Dr. Bushnan's Report on German Medical Science will appear in our next.
 Dr. Gavin Milroy's letter has been received.
 Dr. Willshire's Lecture will be given in our next number.
 The Berkshire Hospital Reports, from its Surgeon, Mr. Bulley, have been received.
 Mr. Corrie's communication is in hand.
 Cooper's Surgical Lecture in our next.
 "Mr. J. Nutford."—The "suggestions" are under consideration, but we are unable, from a large number of communications in hand, to procure our correspondent an early insertion of his paper.
 "Mr. S. Francis."—The delay was unavoidable, but, as we stated the cause through a private channel, we hope it will be deemed satisfactory.
 "An Observer" informs us that "were it not for the unholy compact existing between certain chemists and druggists, having very showy establishments, and some metropolitan physicians, the mere retailing of physic by the former would produce but very insignificant returns. The College of Physicians engages to punish those of its community who debase their profession by forming compacts with druggists, for pecuniary advantage. Their regulation is a mere *brutum fulmen*, which is despised; and the consequence is, that at the present time there are numbers who debase the physician's honorarium by amalgamating with it a portion of the druggist's profit." Our correspondent imagines that the evil to which he adverts exists to a great extent in this metropolis.
 "An Old-fashioned Apothecary."—The remarks on the progress of chemistry are not suited to our columns.
 "Auditor."—Mr. E. D. Grainger formerly lectured at the School of Anatomy in Maize-pond.
 "Pathologist."—The disease is generally complicated with a congenital defect of the anterior part of the organ, and of the corresponding portion of the abdominal parietes.
 "Dr. E. R. Hickson."—The Master of the Apothecaries' Society.
 "Chirurgus, Sheffield."—We should feel obliged by re-

ceiving the promised paper on "The Sanitary Condition of Rural Districts."

"Scotus."—The account of the farewell banquet to Mr. Syme prior to his departure from Edinburgh has been received.

"S. S."—The concluding part of the paper has arrived safely; we shall not fail to attend to the requests made.

"Obstetrician."—The credit of bringing chloroform into use as an anesthetic agent is certainly due to Dr. Simpson, of Edinburgh. Very confused notions were entertained of its virtues prior to his discovery.

"Dr. Henry" is thanked for his communication.

"A Hater of Humbug" is requested to state more clearly the facts to which he refers. A brief and well-arranged statement would be acceptable.

"Hippocrates, Camden-town."—The publication of the letter would be productive of no benefit to the profession. We have, therefore, as requested, left it at our office.

"A Country Subscriber."—The publisher is Mr. Renshaw, Strand.

"Zeta."—There is no difficulty whatever about the case. We do not prescribe in our pages. Consult some respectable practitioner in the neighbourhood.

The papers from George Town, Demerara, have been received, and we beg to thank our friend there for his kindness.

"A Subscriber, Glasgow."—The disease is endemic in some of the western counties of Scotland. It is propagated, like syphilis, by the direct application of contagious matter. It has not yet been thoroughly investigated.

"Truth-seeker."—The communications of correspondents, when not accepted for publication, are not returned except by special request. It would cost us too much trouble.

"Medicus."—We know nothing of the persons who engage to furnish candidates for the diploma of the College of Physicians with sufficient knowledge to enable them to obtain it in the short space of three months.

"A General Practitioner."—The debt cannot be recovered by law.

"Celsus."—1. Yes. 2. Not without having an indenture of apprenticeship.

"Amicus" is not quite so good a friend as he would have us think he is. We beg to decline his offer.

"X. Y. Z."—The information sought shall be given next week.

"Fair Play."—We think that sufficient notice has been taken of the matter.

"An Old Subscriber and Friend."—The complaint made is not unmerited, and deserves attention. We shall advert to it.

"Mr. J. D. Macdonald," on the office of the Cochlea, &c., has been received.

"A. B. Haworth."—We cannot say how many prosecutions have taken place, nor is it a matter of much consequence. The Company has the power of punishing persons who practice as apothecaries without its licence. To question 4—Yes.

"M. D., Edinburgh."—The Museum is open to visitors the first four days in the week, from 12 to 4, except during the month of September. On Friday for gentlemen studying in it; on Saturday, from 10 to 1, to gentlemen desirous of comparing specimens with those in the Museum.

"A Medical Student, St. George's Hospital."—1. The French medical system, we believe, was given up rather more than thirty years ago, and a new form then adopted. There are four systems of weights in common use, including that of the "Codex Medicamentorum." 2. A gramme is rather more than fifteen grains avoirdupois.

"Dr. Wigglesworth, Swansea."—Letter received.

"Justus."—A proper notice must be given, and the time will be specified.

"M. D., Ashton."—A surgical diploma from Scotland or Ireland gives the possessor as much right to practise surgery in England as the London College.

"Guhelmus."—We think the certificates will be received at the College, as being in accordance with the regulations.

"Quid Pro Quo," on the Croydon case, received.

"A Subscriber, Halifax."—The work on "The Horse," published by the Society for the Diffusion of Useful Knowledge, is a very good one.

"Mr. J. O'Connor, St. George's Hospital," writes us as follows, in reference to the fatal application of chloroform at Newcastle:—"On looking over the evidence I find that Dr. Meggison used cold water, as directed by Dr. Snow; and here I would remark that no man, I believe, has administered chloroform so frequently as Dr. Snow, who states that he is not aware that any disease or any state of the general health forbids the inhalation of ether or chloroform. It is impossible to say what symptoms were present to warrant Dr. Meggison in bleeding and administering brandy. This I feel assured of, from my knowledge of him and his professional talent, he did not do so in ignorance of his profession. How many men can write beautiful reports of cases, and lay down laws of what should be done, but how very few practise! Yet, if those selfsame writers were placed in a critical situation, would they follow out to the letter the laws and instructions which they publish? When they have but little time to think, when the life of a fellow-creature depends on their speedy decision, and promptness alone the watchword, I ask, do they follow closely to the letter their nice reports so carefully made? In the case under discussion Dr. Meggison and his assistant were alone the witnesses of the exact symptoms which presented, and which called for the means used to restore life. It fell to my lot to assist Dr. Meggison in his very extensive practice during the summer of 1847, and I had many opportunities then of judging of his sound professional knowledge and good judgment. If diplomas are a test of a man's abilities, and received as proofs of professional knowledge, then, indeed, Dr. Meggison can well boast of many awarded by our first courts

of examiners. He studied for many years in Edinburgh, also at the London Hospital; as a practical surgeon, very few more dexterous with the knife; and as a physician, the many eminent men by whom he is surrounded are aware of his superior education, while his wide field of practice must speak trumpet-tongued of his skill. I would here beg to ask if many more fatal cases would not occur from the use of these anesthetic vapours, were it not for the great loss of blood usually attending operations? In the operations performed under Dr. Meggison, little or no blood was lost; perhaps some of our professors will think well on this point. I also find, in a recent number of the *Lancet*, a short editorial remark on the case. Trusting to your love of justice, I ask a corner in your next number: while the attempt to defend a professional brother will, I am sure, be sufficient excuse for trespassing on your valuable time."

"A Correspondent" informs us that, "for some months past, a Mr. Chapman has been soliciting relief from the members of the medical profession. He called on me some weeks ago—I think some time in December last—showing me a list of subscribers: some having given him £1, others £2, and one as much as £5. Being myself but young in practice, I placed my name on his list, and opposite to it five shillings; he took the five shillings. Last week Mr. Chapman called on a physician of my acquaintance to beg of him. My name appearing on the list of subscribers induced him to inquire of me what I knew of Mr. Chapman. I said I knew nothing more than the tale he told of himself, and, believing it, had given him five shillings; upon which the physician told me that the sum had been altered—the 5 into a 0, and that £1 appeared opposite my name. This alteration could not be from mistake, or with any honest intention on the part of Mr. Chapman, but evidently with a hope to deceive others, and to procure larger subscriptions—the fact appears to me to speak for itself without further comment. Mr. Chapman may be in want—may have met with misfortune—but, as he appears to adopt dishonest means to procure subscriptions from others, I think a caution to the profession, through a notice in your journal, may put a stop to his efforts at imposition. I trust the substance of this communication will be sufficient apology for the length of it, and that you will consider it worthy of some notice in your next number."

"Dr. Meggison" complains to us that Dr. Simpson did not, before publishing his article on the death of Hannah Greener, request him to furnish the facts of the case. He says, in reply:—"I only got Hannah Greener to take about a teaspoonful of brandy, which she swallowed, although with some difficulty. There was not the slightest symptom to indicate choking. 2. In the state in which she was when I administered the brandy, it was impossible for such enormous congestion of the lung as was found, to be occasioned by the brandy; for she had no pulse. Sir John Fife, Mr. Keelston, surgeon to the Cumberland and Westmoreland County Lunatic Asylum, and Dr. Glover, had never seen such lungs as the unfortunate patient presented, except the last-named gentleman, who had seen them only in animals poisoned by chloroform. 4. Professor Simpson states that in animals poisoned by inhaling chloroform, in Edinburgh, the blood was coagulated in the right side of the heart, whereas in this case it was fluid. Chloroform appears to be a different thing in Edinburgh from what it is everywhere else. Besides, from the report in Dr. Bennett's journal, the Edinburgh experience of its poisonous operation appears to be very limited. Mr. Wakley found in his experiments enormous congestion of the lungs; and I presume from his mode of speaking that the blood was fluid. It was so in several of Dr. Glover's experiments. Dr. Simpson remarks that congestion of the brain occurs in asphyxia, and not in cases of poisoning by chloroform; but the congestion of the brain is a mechanical effect arising from the congestion of the lungs. In some of Dr. Glover's experiments the membranes of the brain were congested, and bloody spots in the substance of the brain itself."

Letters and communications have also been received from Mr. J. Nutford; Mr. S. Francis; An Observer; An Old-fashioned Apothecary; Auditor; Pathologist; Dr. E. R. Hickson; Chirurgus, Sheffield; Scotus; S. S.; Obstetrician; Dr. Henry; A Hater of Humbug; Hippocrates, Camden-town; A Country Subscriber; Zeta; A Subscriber, Glasgow; Truth-seeker; Medicus; A General Practitioner; Celsus; Amicus; X. Y. Z.; Fair Play; An Old Subscriber and Friend; Mr. J. D. Macdonald; A. B. Haworth; M. D., Edinburgh; A Medical Student, St. George's Hospital; Dr. Wigglesworth, Swansea; Justus; M. D., Ashton; Guhilmus; Quid Pro Quo; A Subscriber, Halifax; Mr. J. O'Connor, St. George's Hospital; A Correspondent; Dr. Meggison; Mr. Dinham, Taunton; Mr. Cresser, Driffield; Mr. Marsh, Marksborough; Mr. Statten, Wickhambrook; Mr. Lamm, Sutton-in-Ashfield; Mr. Smith, Halifax; Dr. Gibson, Botesby; Mr. Adamthwaite, Stanhope; Mr. Evans, Widcombe; Mr. Nichol, Crook; Mr. White, East Grinstead; Mr. Parnell, Neath; Dr. Barker, Dumfries; Mr. Cooke, Morreston; Mr. Hyde, Bloxham; Mr. Caudle, Brighton; Mr. Oxley, Askeras; Mr. Hadden, Skibbereen; Mr. Pastgate, Kilham; Dr. Furlong, Wexford; Dr. Burke, Killaloe; Dr. Green, Lifford; Dr. Sandiford, Ballyvourney; Dr. Fenton, Aylth; Mr. Halley, Wingate; Mr. Hall, Crick; Mr. Conell, Baslow; Mr. Sample, Dudley; Mr. Jordan, Manchester; Mr. Williamson, Penrith; Mr. Somerset, Marlborough; Mr. Holdsworth, Ripley; Mr. Eccles, Preston; Mr. Howard, Linton; Mr. Patten, Keyingham; Mr. Baker, Southampton; Mr. Fowke, Ventnor; Mr. Kiddell, Sheerness; Mr. Coleby, North Walsham; Mr. Pearson, Woolton; Mr. Laister, Uttoxeter; Dr. Page, Newark; Dr. Palmer, Dunfanaghy; Mr. Barrow, Settle; Mr. Gray, Liverpool; Mr. Bloxham, Hales Owen; Dr. Bryden, Wadhurst; Mr. Macnamara, Corofin; Mr. Cribb, Bishops Cleeve, &c.

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FEB. 26.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,

Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

LECTURE IV.

ON WOUNDS AND INJURIES OF THE CHEST.

Typhoid pneumonia—symptoms and treatment; Dr. Hunter and Dr. Stokes on typhoid pneumonia; typhoid; leucitis; occurrence of pleuro-pneumonia after amputations; Mr. Guthrie's opinion that it depends on inflammation of the veins, and absorption of purulent matter; latent or chronic pleurisy; empyema; hydro-thorax; causes of empyema; symptoms; pathological condition of the chest after the cure of empyema; Dr. A. T. Thomson's case; results of percussion and auscultation; treatment.

Inflammation of the chest has been hitherto considered as accompanied by inflammatory fever as an essential character, but this is by no means always the case. In large cities, and amongst troops after hard service, in which they have been subjected to much privation, and in certain epidemics, the accompanying fever often partakes of a different character, becomes infinitely more dangerous, and requires a different mode of treatment. These modifications of disease I have known from my earliest years, in London, in North America, in Portugal, and in Spain, in the two last of which countries they are very fatal. They appear to prevail much in Dublin, and Drs. Stokes (a) and Hudson (b) have given the best account of them with which I am acquainted, under the name of typhoid pneumonia, constituting a disease formed of a local inflammation with general symptoms of a low asthenic type of fever, combined with those of marked derangement of the stomach, intestines, or liver, as shown by a dry black, or red black, or brown tongue, offensive breath, diarrhoea, vomiting of a dark-coloured or greenish fluid, watery or sanious expectoration, great thirst, headache, a feeble and quick pulse, low delirium, and great prostration of strength. It was marked, on the banks of the Guadiana, by the discharge of lumbrici by the mouth and by the anus. Whenever I have seen this disease it has always appeared to arise from peculiar circumstances, and to disappear when they ceased to exist: such as great privations and exposure to cold and fatigue, the use of ardent spirits without sufficient food, bad air, or other depressing causes. It is sometimes under such circumstances epidemic. In these

cases, as far as my recollection of them permits, as I have not seen them lately, I should say the pneumonic affections were always secondary or consequent on the idiopathic fever. The general fever is typhoid, the local inflammation latent, and the symptoms of it masked. It may be complicated with a similar affection of the stomach and intestines; it may occur in cases of erysipelas, after diffuse inflammation of the cellular membrane, after wounds or injuries attended with large secretions of purulent matter, after plebitis, and with other complaints. Dr. Stokes especially draws attention to it in connection with delirium tremens from excess of stimulants. Whilst the symptoms of low fever are general and well marked, those of the latent affection of the lung are not so prominent or even observable. The patient complains but little, and sometimes not at all, of his chest, until attention is drawn to it by a slight cough and difficulty of respiration, attended by a character of countenance which usually indicates embarrassment in the functions of the lung. It may be brought on by a common non-penetrating injury of the chest.

In typhoid pneumonia general bleeding, if admissible, is to be had recourse to with extreme caution, even in young and robust persons. Local depletion is oftentimes useful, and, perhaps, ought alone to be relied upon. The great dependence is on calomel and opium; and, after such local depletion as may be thought advisable, counter-irritation by blistering, and the administration of stimulants, such as camphor, ammonia, and wine, in small and repeated quantities. Mild aperients only should be employed, and anodyne injections are frequently useful. Whilst auscultation has thrown a clear and steady light on the nature of the mischief which is going on, it has added little or nothing dissimilar to the practice pursued some forty years ago. The nature of the hepatization or solidification which takes place in the lung in typhoid pneumonia has given rise to some difference of opinion among morbid anatomists, who incline to believe, from the rapidity with which it takes place, and is sometimes as quickly removed, that it depends more on passive congestion, and on a typhoid alteration of the state of the blood, than on an altered action in the vessels of the part. This opinion is maintained by Dr. Hudson in his very able paper on typhoid pneumonia, in the seventh volume of "The Dublin Journal" for 1835; but it does not seem to me to be supported by his dissections, unless it be generally admitted that grey hepatization, and the third stage of disease of the lungs in pneumonia, mean simply congestion. He concludes his paper by the following good practical remarks:—"The epidemic constitution of the disease, and its pathological condition (connected as both seem to be with an altered state of the blood), often combine to render these cases prone to run into gangrene; and that they are otherwise tedious and intractable, and generally require the early and liberal use of stimulants, as well as the prompt and cautious employment of the most active

means for subduing inflammation; and I think the necessity for the former may be stated to be in proportion to the degree of prostration, and the extent of passive congestion as indicated by dulness on percussion, and nullity of all respiratory phenomena."

Dr. Stokes, in his excellent work "On Diseases of the Chest," page 342, says:—"The terminations of typhoid pneumonia are various. It may rapidly produce a fatal hepatization; it may form a gangrenous abscess, or induce a chronic solidity of the lung, passing into the tubercular condition." His practical conclusions are extremely valuable, as this disease often prevails in Dublin. They are—1. That general bloodletting is to be used with extreme caution. 2. That the mercurial is in general to be substituted for the antimonial treatment. 3. That counter-irritation may be employed at an earlier period than in simple pneumonia. 4. That the vital powers are to be carefully supported. 5. That as gastro-intestinal disease frequently complicates the pneumonia, close attention must be paid to the abdominal viscera. 6. That stimulants are to be used with greater boldness and at an earlier period.

When the patient survives the imminence of danger in which he is placed by the attack of the disease, and the expectoration becomes copious, with great emaciation, quick pulse, and hectic fever, a slight infusion of senega with ammonia, or of cinchona, with a mild and well-regulated diet, and change of air and climate, answer best in aiding recovery.

A typhoid pleuritis is presumed to exist, as a distinct disease from typhoid pneumonia, although the analogy between them is admitted to be close; like it the disease is latent, and oftener pointed out by the sinking of the powers of life, than by any new suffering. The signs of effusion may be discovered on auscultation, and the treatment is essentially similar, blistering and counter-irritants being, perhaps, more useful, if time be granted for their application.

I was the first, I believe, to draw attention in my work on gunshot wounds, published in 1816, to the connection which existed between the latent disease of the lung which may be called pleuro-pneumonia, somewhat resembling these complaints when of a typhoid character, and to its occurrence after the operations for amputation; for although affections of the liver and even lungs, following injuries of the head, had been observed by Morgagni, Valsalva, Quesnay, and others, they were always considered to be accidental circumstances. I have also related or referred to cases of this disease, and of purulent deposits, in the third edition of that work and its appendix. It is evident that I then considered these inflammations of the lung, and purulent deposits in other parts of the body, to be dependent on the same cause, and I suspect they are both more intimately connected with inflammation of the veins, and the absorption of purulent matter, which may be deposited in the cellular texture of the body with impunity for a time, but which in the lung or pleura is followed

(a) Stokes, Wm. "A Treatise on the Diagnosis and Treatment of Diseases of the Chest." Part I., p. 338. 1837. Dublin.

(b) Hudson, Alfred. "Observations on Typhoid Pneumonia," vol. vii. for 1835, p. 372, of "Dublin Journal of Medical and Chemical Science."

by low inflammation, ending in death. The treatment, which, as far as I know, has been hitherto almost always unsuccessful, ought apparently to be conducted on the same principles as those which are adopted in typhoid pneumonia, or typhoid pleuritis, although the dissections I have made, or am acquainted with, authorize my saying that these two complaints have been so combined as to prove that in this particular disease they are not distinct affections. Mr. Ross drew attention to these depositions and affections of the lung, after injuries and operations, in a paper read before the Medico-Chirurgical Society in 1828, thirteen years after my first publication, and M. Marechal did the same thing in Paris, in the same year; both being one year after the publication of the third edition of my work "On Gunshot Wounds," and without adding anything to the facts I had stated, or to our knowledge on the subject; and it is a matter of surprise to me, that Dr. Townsend, in his able article on "Empyema," in the "Cyclopædia of Practical Medicine," should have noticed the labours of Mr. Ross, and our continental brethren, without referring to mine which preceded them by so long a period—a point of no consequence, further than it may as well be known that the science of medicine is indebted for this fact to my record of the practice of the Peninsula war. Andral has been led to believe that, "during the period of profuse discharge, pus is taken into the circulation, and subsequently separated from the blood, as mercury, when injected into a vein, is found to deposit its globules in different parts of the body." It is impossible to say, even if this opinion should be correct, what may be the cause which leads to its deposition in particular parts. I have supposed it to be from its giving rise to irritation in one that is weak; but that is not an explanation, although it may be the fact.

Pleurisy is said to be latent or chronic, when a consequence of acute disease insufficiently or incompletely treated, and not a primitive complaint. It is marked more by oppression of breathing than pain, and auscultation proves the nature of the complaint. It may exist for weeks and months, and continue even for a year, wearing out the patient until he becomes hectic and thoroughly emaciated, suffers from empyema, and dies, perhaps, by dropsical infiltration or by suffocation.

The cases which commonly fall under the care of the physician, which render an operation necessary, are those in which the acute inflammation was neglected in its first stages, or not met by means sufficiently energetic, or from some recurrence of the complaint.

Empyema, from *em*, in, and *pus*, pus—a name given by the ancients to all abscesses formed in the cavities of the trunk, and by later authors to all collections of fluids and to the operation for evacuating them from the cavity of the chest. Empyema is not a special disease, but the result of another; commonly of acute or chronic pleurisy, or of injuries of the chest, which give rise to inflammation, ending in suppuration. When it occurs from the effusion of a serous fluid, constituting a local dropy, it is usually the result of disease of the heart, or of the great vessels, and is accompanied or preceded by symptoms indicating the existence of these complaints; in which case it is not likely to be benefited by any operation. The disease is then denominated hydro-thorax. The serous fluid is generally transparent, although more or less tinged with blood, when thrown out in persons who die within a few days after receiving a wound of the chest. It may, and does occasionally, contain, in these cases, a large quantity of blood; but the early effusion of blood is not uncommon in very acute cases of pleuritis. It is usually more or less turbid when the result of ordinary inflammation, although the presence of albuminous or purulent matter is not constant. Whether colourless, transparent, turbid, or purulent, it remains free from fetor, unless gangrene has occurred internally, or some communication with the atmosphere has taken place by an external opening.

Whilst the fluid remains transparent, the appearance of the pleura is little changed; but when it has become turbid in any great degree, or flocculent, or purulent, the pleura has lost its natural appearance. In its simplest character, when the fluid is puriform, and particularly if the inflammation has not been very active, it is covered with a layer of whitish incrusting sediment, which can be scraped off by the scalpel. This is sometimes quite red, as if loaded with blood which had been deposited upon it. Wherever pleuritic symptoms continue beyond the ordinary period of about three weeks, or, after a temporary abatement, are followed by those of effusion, which are not in turn removed, the occurrence of empyema may be suspected.

Empyema may form from a pulmonary abscess bursting, or a gangrenous spot being detached and falling into the cavity of the pleura. An abscess in the liver or other parts may also communicate with the pleura, and abscesses—formed from injury or otherwise—in the wall of the chest may also give rise to it. It is usually, however, caused by acute inflammation, by penetrating injuries, and by the introduction of foreign substances. It must, however, be borne in mind that, when it occurs from wounds, the external opening must have healed, or the complaint would be simply a wound in the chest, with discharge from the cavity of the side affected. A true surgical case of empyema following an injury of the chest, in which the wound has healed, is not to be ascertained but by the same means as a medical case arising entirely from internal causes, unless the cicatrix should indicate the presence of matter behind it.

The symptoms by which the termination of inflammation in effusion may be known, are dyspnoea or difficulty of breathing, which varies, being greatest when the effusion has taken place rapidly, less when it has been gradual; inability to lie on the unaffected or sound side, arising in all probability from the weight of the fluid; which supposition may be regarded as correct, from the circumstance of persons being able to lie on the affected side, after the operation has been performed and the fluid evacuated, although it should be replaced by air in consequence of the lung being unable to resume its natural position. In some instances a person has been known to lie on the affected side, and in other cases persons have at last accustomed themselves to lie on either side; but they are exceptions to the general rule. When the effused fluid has filled one side of the chest, the affected side is evidently enlarged. It is permanently dilated, and this can be distinctly seen when the dilatation does not exceed half an inch, measuring by a tape from the spinous process of a vertebra behind to the centre of the sternum. The ribs are nearly if not quite immovable, and partially raised, offering a strong contrast to the active motion of the ribs of the other side. The intercostal spaces in these persons may be more or less filled up, and even protruded, rendering the whole surface smooth and soft. In some very severe cases the external parts become oedematous, so that the ribs cannot be felt; and this sign, although not always present, is certainly pathognomonic when it takes place at a late period of the disease. When the effusion is into the left side of the chest, the heart is frequently pushed over with the mediastinum to the right side, and its pulsation can be seen and felt to the right side of the sternum, or it may descend with the diaphragm into the epigastrium, changes which are not so extensive or remarkable when the effusion is into the right side, as the liver materially impedes the descent of the diaphragm, and the heart is already in the left side, in which it is sometimes raised rather than depressed. Dr. Stokes says, and Dr. Chambers confirms the assertion, if the hand be placed over the affected side, whilst the patient speaks with a tolerably loud voice, and a strong vibration is felt in the part, the case is not one of empyema; but this is as uncertain a sign, and as little to be depended upon, as the dulness on percussion which some-

times takes place under the sternum in empyema. The cough and expectoration offer nothing peculiar, unless a communication exist between the lung and the cavity of the chest, when the expectoration in general becomes very fetid and disagreeable. The febrile symptoms depend on the activity of the previous disease, and the rapidity with which the effusion has taken place.

Broussais and Andral say that night-sweats never accompany the hectic fever of empyema, unless there be tubercles in the lungs or pleura—a remark which cannot be depended upon, although it cannot, perhaps, be disproved; the differences which may be observed between the hectic of phthisis and that of empyema being according to the rapidity with which persons labouring under empyema are cut off, unless the disease becomes essentially chronic, when it may exist for months and years.

Two symptoms have been insisted upon by older authors as distinctive of effusion in the chest, which more modern ones are disposed to doubt. One is an oedematous swelling of the back, the other a protrusion of the intercostal spaces. A third may be added when the effused fluid is blood, which is that the oedematous swelling becomes ecchymosed, or red, or bloody looking, from the effusion of blood into the cellular membrane beneath the skin, over the whole space occupied by the blood within. That the first two symptoms do assuredly indicate the presence of pus cannot be doubted, and that the third is a sign that the effused fluid is bloody, not been disproved, but it must be borne in mind that they are late, not early, symptoms, and that operation should not be delayed until they are present, if other signs should appear to demand its performance. The pulpy swelling was first remarked upon by Morand a hundred years ago. Valentin, in his "Recherches Anatomiques sur la Chirurgie," published in Paris in 1720, was the first to notice the ecchymosis of the side and back when the chest was full of blood, a point which Larrey particularly insists upon, and which certainly does not appear so early as to be distinctive, when other symptoms exist, which almost render it certain. The swelling, however, I apprehend, arises from transudation of matter through the pleura, but from irritation caused by matter admitted through it, as in any other deep-seated abscess. Dilatation of the chest is usually an early symptom, although a considerable effusion may exist without it, or with a slight elevation of the intercostal spaces. When the complaint is distinct, these spaces are elevated to a level with the ribs, so that the surface becomes perfectly smooth and equal. The protrusion of these spaces so that they become prominent is a very rare occurrence, although frequently alluded to. Effusion, indeed, of serous fluid to a considerable extent, so as to displace the heart, may take place without the intercostal spaces being elevated; which is only believed to occur when the intercostal muscles have become paralyzed. When the matter is evacuated, the muscles recover their tone, and the intercostal spaces reappear.

It has been already stated that, when one lung only is diseased, *puerile* respiration takes place in the other. The unaffected side of the chest is perhaps dilated, the lung distended, and the mediastinum yields to the impression.

In all cases of empyema, in which the lung is so bound down by adhesions that it cannot be expanded by the continued process of respiration, a cure can only be accomplished by an alteration of the form of the affected side of the chest, by which its cavity is diminished, and often nearly obliterated; this is an effort of nature. Lamezia was the first to prove this distinctly, and I have had very many opportunities of confirming the fact in all stages of the disease, from its commencement to its cure, or the death of the sufferer. The pleura changes its character, becomes so thick as materially to diminish the cavity, the diaphragm ascends, the heart leans to the right, in many instances, the spine curves, the lungs thicken and become flatter, and close in upon each other, abolishing the intercostal spaces; hence

Wendlestadt, ten years after a fistulous opening had taken place in his chest, from purulent deposit, found that the cavity would still hold a quart of warm water. I have seen it hold as much, after one, two, three, and four years. In a case under the care of Dr. A. T. Thomson, the operation was performed on the left side on the 1st of December, 1837; fifty ounces of pus were evacuated; the wound continued to discharge. On the 14th of February, 1841, he was attacked with acute bronchitis, and died on the 17th, three years and ten days after the operation for empyema had been performed. As this case is one of a late date, when attention had been fully drawn to the subject, the essential parts of the dissection-report are transcribed. Emaciation considerable; the left side greatly flattened; spine curved to right side; heart lying over the spine; sound lung weighed two pounds four ounces two drachms; left or affected lung only ten ounces seven drachms. The space at the bottom of left thoracic cavity contained twelve ounces of fetid purulent matter, and a piece of carious rib an inch long and half an inch broad. Pleura coated with a false membrane, nearly half an inch thick, and of cartilaginous firmness; the free surface was black; ribs nearly an inch and a half in thickness; left lung adherent behind through its whole length, and below to the diaphragm. This patient lived long enough to permit the almost total obliteration of the pleural cavity, but he could not have recovered unless the piece of carious rib had been removed by an operation.

Inspection gives from the sound side a clear, more hollow and more hollow sound than usual, resembling that from an empty cask; whilst from the affected side it is as dull as the sound from a full one, when struck with an equal force. When the fluid is small in quantity, or confined to any one spot, the dullness is confined to that spot. But these are not usually cases of the consequences of surgical disease.

Inspection shows that the ordinary sound of the breathing is dull, although at the root of the lung behind some little bronchial respiration may be heard, and even some slight mucous rhonchi from the same spot; but these noises of auscultation will never be sufficient to obscure the evidence made from the other symptoms. When the lung happens to adhere to the wall of the chest, some difficulty may arise temporarily, but not when the disease is otherwise well marked.

Treatment.—As long as the febrile symptoms consequent on the inflammation continue to any extent, medicines will be of little avail, and counter-irritants should be avoided. When they have subsided, purgatives and diaphoretics may be tried, in combination with tonics and a light, but good, nourishing diet. Blisters applied frequently upon a large surface often do good; and Baron Larrey preconizes the use of moxas, which are not probably as useful, although they may assist in the intervals of the application of blisters in chronic cases. When these means fail, the operation must be resorted to.

Case 2.—A youth, aged eighteen, in February, 1846, struck the right side of the chest in falling from a chaise, and a few days after was attacked with pain in the part struck, with urgent dyspnoea and fever. Cough, expectoration, and an obtuse pain in the right mammary region, increased by pressure and forced inspiration, soon ensued. He was admitted into the Charing-cross Hospital in April, under Dr. Shearman. He stated, that for five weeks from the supervention of the cough, the expectoration was scanty, the pain and dyspnoea not urgent; but just before his admission all the symptoms increased, still, however, referable to the right side. The cough became urgent; the expectoration, profuse, and at first rusty, soon changed to a dark-greenish hue, was very fetid, voided in masses, and tinged with blood. The pain was of a dull, dragging character, but soon ceased. This abscess from pain (five days from the accession of the pneumonia, and two days before admission into the hospital) was consensaneous with the

change in the sputa, from rusty pneumonic expectoration to that of sphacelated lung.

He was in the hospital eight days, presenting the following symptoms:—Cough urgent; expectoration copious, though dyspnoea and thoracic pain were abated; the sputa purulent, and containing portions of clough; it varied in tint from a greenish yellow to a mahogany-brown, and was most fetid, as was also the breath; great constitutional debility; hectic; turbid urine; tongue dry and red; no cerebral symptoms, nor dropsy.

He left the hospital materially relieved, and became an out-patient, paying every attention to his diet and regimen. About the middle of September, the cough and expectoration increased; the latter again became dark and fetid; the strength was prostrated, and several attacks of hæmoptysis occurred. This aggravation was ushered in by an attack of hæmoptysis, at which time half a pint of blood was expectorated. He lost, from time to time, during the month of October, an ounce or two of blood; but this was afterwards restrained by acetate of lead. At this time there were symptoms of fever; quick pulse, and great general debility; appetite bad; urine loaded with yellow lithates, not albuminous; bowels irregular; the liver and heart healthy.

On the 23rd of November, the signs remaining; much the same, the following observations were made:—

1. *Physical Signs afforded by Inspection.*—On the right side: No movements of the ribs from the third to the fifth; below the fifth the ribs are but imperfectly acted on by the diaphragm; the whole side is flattened; and a slight depression exists under the left clavicle; the cartilages of the third, fourth, and fifth ribs are drawn down, and more oblique than usual. On the left side: The expansion is fully and equally performed; no flattening or deformity of any kind; the whole of this side is on a plane anterior to the right.

2. *Affected by Measurement.*—The diameter of the right side is two-thirds of an inch less than that of the left, in nearly every direction, save under the clavicles, where the difference is trivial.

3. *Affected by Percussion.*—On the right side: A clear sound as far as the third rib, from which point downwards the dullness is so great that no demarcation between the lung and liver (as to sound) can be detected. On the left side: Clear on every part, even preternaturally so, indicating how fully every portion of the pulmonary parenchyma is permeated with air.

4. *Affected by Auscultation.*—Over the right lung the respiration is puerile to below the second rib; there is a small rale occasionally heard, but no prolonged expiration. From the third to the fifth rib, on the same side, cavernous breathing, pectoriloquy, and gurgling are audible, and most distinctly so at the inferior angle of the scapula. Over the left lung the respiration is puerile, otherwise quite normal; an occasional rale at the lower part at the back. A slight fluctuation perceptible on the right side on percussion; cardiac sounds normal; pulse 90 to 100; respirations 25.

The treatment of this case was of a tonic nature, with occasional counter-irritation. Easily digestible diet, avoidance of cold and violent exercise, diaphoretics, large doses of bark and sulphuric acid, with four grains daily of the iodide of iron, were the means employed, under which he has daily improved, and is now nearly well.

The patient is now (January, 1846) quite well, and able to prosecute his former occupation with ease.

MORTALITY OF EDINBURGH AND LEITH FOR JANUARY, 1848.—The mortality of Edinburgh for the month of January, 1848, amounted to 647—330 being males, 286 females, and 31 still-born. The mortality of January for the years 1846-67 was respectively 354, 409, and 537. The mortality of Leith for the past month amounted to 204—42 being males, 53 females, and 9 still-born. The mortality of January during the years 1846-67 was respectively 67, 72, and 101.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR.

By PROFESSOR ANDRAL.

Reported for the Medical Times by D. MCARTHY, M.D., Paris, &c.

SECOND SERIES. CHAPTER VII.

EMBRYOLOGY OF THE NERVOUS SYSTEM.

We will, in the first place, turn our attention towards the cerebro-spinal apparatus, to the nerves which emanate from it, and finally inquire into the signs furnished by the organs of sense.

The cerebro-spinal functions may be modified by disease, and we have here to study the alterations of intelligence, of motion, or of sensation.

The intellect may be disturbed in maladies of the cerebral substance or of its envelopes, but not necessarily in all diseases of the cerebral pulp. Observation teaches us that the intellectual powers are chiefly modified when the cerebral surface is the seat of the disorder—a fact illustrated by almost every case of cerebral hæmorrhage or softening. The intellect may be merely weakened slightly, or so much prostrated as to leave the subject in a state of complete indifference to all surrounding objects; or the mind may be disturbed, as in delirium, the co-ordinating link of the ideas being broken by disease.

In cerebral hæmorrhage we seldom meet with delirium at first, but it is not unfrequent after a few days, when local reaction has occurred. In ramollissement, particularly of the surface, delirium is a more frequent sign. Simple congestion of the brain often produces delirium, and, if the pressure on the cerebral substance be much increased, coma supervenes. We have also occasionally observed intermittent aberrations of intellect due to the presence of accidental productions in the cerebrum. Acute meningitis usually sets in with headache and vomiting, symptoms which are soon followed by a form of delirium remarkable from the agitation which accompanies it; after some time coma replaces delirium. In chronic meningitis, disorder of the intellect is noticed, and some cases of insanity present after death the characteristic anatomical appearance of chronic inflammation of the cerebral envelopes. The delirium of meningitis can be explained either by the propagation of inflammation from the membranes to the brain, or by sympathy of the cerebrum for the sufferings of its envelopes. When tubercles have formed in the pia mater, delirium often shows itself long before the symptoms of meningitis are manifest. We cannot refuse to admit the existence of one form of delirium, uncommon with any appreciable anatomical change, and resulting from the protracted excitement of intellectual labour, or the preoccupation of absorbing passions. It may also accompany many general disturbances of the system. Thus it arises from the debility produced by repeated hæmorrhages, or chronic disease; also, during acute diseases, in subjects accustomed to the use of fermented liquors. The success of a narcotic or stimulant plan of treatment, and the complete failure of depletion in the latter case, prove that the delirium is not then due to inflammatory action. The prolonged influence of toxic agents, therefore, sometimes brings on delirium. We have mentioned fermented liquors; we may also add that the absorption of saturnine preparations has the same effect. This poison produces at first a vague and badly defined form of mental aberration, which soon becomes permanent and complicated by convulsive and epileptiform symptoms. Simple feverishness, in nervous subjects, or in those whose brain is kept in a constant state of activity, will often occasion delirium. Violent pain may also cause it. Some organs seem also to have the privilege of being in their diseases accompanied by this symptom. The womb is one of those. In some instances of painful and difficult menstruation the patients

are delirious at each period. Others become partially insane at the beginning of pregnancy; and puerperal mania has been met with frequently by all those who have devoted much attention to the practice of midwifery.

Alterations of motion may be the signs of various affections of the nervous system. We will, in the first place, consider these alterations according to their seat, and afterwards we will study them with regard to their nature.

From the seat of modified motility we may sometimes detect the seat of the disease in the nervous centres: for instance, alteration of motion in both limbs of one side points, in the first place, to disease of the cerebrum, and in the second, to disease of the side of the brain corresponding to that side of the body in which motion has not been altered. This observation not only applies to the cerebrum, but also to the cerebellum, but does not hold good for the pons varolii. It might, it is true, be said that in some forms of meningitis, fluid pressing more upon one side of the brain than upon the other—in tumours occupying the membranes, or in meningeal hemorrhage—the same crossed effects of paralysis will be observed; but these cases are extremely rare: they constitute exceptions, and do not annul the diagnostic rule above established. It has been asserted that pressure of hemispheres downwards was more prone to occasion paralysis than lateral pressure, and hence that the seat of meningeal hemorrhage or effusion might occasionally be surmised; but the fact itself should not be admitted until further demonstration. In reading attentively the authors who have treated of these subjects, from Valsalva and Morgagni, down to our own contemporaries, perhaps twenty cases might be collected in which paralysis was found to exist on the same side as the anatomical change within the brain. Of these twenty cases, the greater number are not sufficiently detailed to be conclusive; but some five or six must be accepted. Morgagni relates one, in which he took every precaution to avoid error. In the "Archives" of July, 1846, M. Bouillon Lagrange published another, accompanied by every detail, and which seems perfectly authenticated. M. Blandin observed one case of the same description, in which the disease occupied the posterior lobules of the brain, and he explained the presence of paralysis on the same side by the anatomical fact mentioned by Gall, viz., that the fibres which run from the medulla oblongata to the posterior cerebral lobules do not decussate. This remark accounts, it is true, for cases like that of Professor Blandin, but leaves unexplained those in which the alteration occupied the anterior parts of the hemispheres. One limb only may be paralyzed from cerebral disease, and the significance of this modification of motion is the same as when the two limbs of one side are affected. It has been often asserted that, when the arm was paralyzed, disease of the optic thalami might be inferred, and alterations of the corpus striatum when the motion of the leg was modified. Some facts have been adduced in support of this theory, but a greater number militate against it. When the spinal chord is diseased, alteration of motion in the limbs shows itself in a different manner, both limbs, inferior or superior, being usually affected at or about the same time. In spinal affections the paralysis does not in general take place suddenly: when the four limbs are successively or simultaneously deprived of motion, we are compelled to admit the presence of anatomical change in both hemispheres, in the pons varolii or in the spinal chord. Alteration of the movements of the face indicates disease of the brain, or pressure upon the portio dura; when due to cerebral disorder, it takes place on the same side as paralysis of the limbs. But when the leg and arm of one side are deprived of motion, and when the face is paralyzed on the opposite side, a double cause to these symptoms must be admitted to exist. Alteration of movement in the tongue is caused by disease of the brain; also in the eye: squinting, for instance,

is often one of the symptoms of meningitis. Paralysis of the rectum and bladder is more frequent in maladies of the spine than in those of the brain, and usually follows loss of motion in the inferior extremities. It is also, in most cases, disease of the spine which occasions paralysis of the œsophagian, pharyngeal, or respiratory muscles. In apoplexy, however, pulmonary congestion and stertorous breathing are frequently observed. The muscular parietes of the abdomen are not uncommonly struck in diseases of the spine, and, at their incipient stage, by semiparalysis or spasmodic contraction.

We now turn to the study of the alterations of motion, considered as to their nature. Mobility may be diminished or abolished, and it may be perverted; hence two great divisions, which we will successively examine.

When motion is diminished, incomplete paralysis is said to exist: the paralysis is complete when movements are altogether abolished—two conditions which may indicate disease of the nervous centres, of the nerves themselves, or of muscular structures.

In the first place, paralysis may be present without any appreciable anatomical alteration of the nervous centres: when lesions are detected, their nature is often pointed out by the mode of production of the paralysis. Thus, when loss of motion has taken place suddenly, and at once attains its highest degree, hemorrhage has most probably occurred in some portion of the nervous centres: if the hemorrhage or apoplexy be slight, the paralysis is not complete; the contrary occurs if the local damage is considerable. When paralysis increases, even very rapidly, after the first instant of its production, its cause is not to be sought for in hemorrhage, but in encephalitis, followed by rapid ramollissement. Another sign distinguishes the paralysis due to softening, from that produced by hemorrhage: it is contraction in the paralyzed parts—a symptom which may precede the loss of motion in ramollissement, but is never observed immediately after an apoplectic stroke; when it occurs in cerebral hemorrhage, it is only several days after the seizure, where local reaction takes place within the brain. Paralysis which comes on in very slow and gradual stages is due to chronic softening of the cerebrum, and may also be occasioned by the presence of tumours or morbid productions within the skull, pressure being thus produced upon the cerebrum. In these various cases, paralysis is partial. But diminution of mobility has, in one instance, a tendency to become general: observation teaches us that this general paralysis, which begins by difficulty of the movements of the tongue, chiefly observable in the articulation of words, which soon produces inability to raise the feet from the ground, afterwards impedes the motion of the arms, and finally attacks the rectum and bladder, is usually preceded or followed by loss of memory, and more or less derangement of the mental powers; it is very often met with in the insane, and was for a long time considered as belonging exclusively to the history of insanity; but more rigorous researches have clearly shown that it may be quite independent of any alteration of the mind. Authors do not agree upon the nature of the anatomical lesion by which it is caused, and, from the results of our own experience, we are inclined to refer it in general to alteration of the cerebral envelopes, principally to serous suffusion beneath the arachnoid, within the ventricles, and at the basis of the brain. The cortical substance, and even sometimes the medullary texture of the cerebrum, may also be indurated or softened. We believe that, when the cortical substance has been in the first place affected, the symptoms begin by disturbance of the intellect; and that, when the meninges and the basis of the brain have been the primary seat of disease, its first signs are alterations of motility; but we cannot do better than refer you for further information to M. Calmeil's excellent work on the subject. In some cases of introduction of toxic substances into the system no alteration what-

ever is found on dissection, and yet paralysis has been present; for instance, persons who have suffered much from saturnine intoxication are subject to delirium and epileptic convulsions, which cannot permit us to doubt that the brain has undergone some modification. These subjects often become paralyzed, the extensor muscles of the hands and fingers losing their power of contraction, great pain sometimes existing at the same time in the affected extremities. Again, in hysteria, local paralysis, most fickle in its characters and duration, shows itself frequently. And, as a third instance, we may mention *pélagra*, a disease recently described, which begins by an eruption on the skin, and leads to paraplegia. In this disease, attributed by Dr. Rous-selle to the use of bad Indian corn, no alteration in the spinal chord has ever yet been detected, nor has any been discovered in the brain of paralyzed subjects who had suffered from hysteria or from saturnine intoxication.

Some forms of paralysis are certainly due to local alterations of the nerves. Thus paralysis of the deltoid muscle is frequently the result of pressure upon the circumflex nerve; and paralysis of the face often results from disease of the portio dura. In this latter malady, which sometimes may be produced by a draught of cold air upon one side of the face, the aspect of the countenance is particularly striking: the wrinkles of the forehead on the affected side are effaced; the eye remains open, and the conjunctiva becomes inflamed in all cases, from uninterrupted contact with the air; the mouth is dragged towards the healthy side; the tongue is not deviated. When paralysis of the face is due to cerebral disease, and not to an affection of the nerves, the limbs are usually paralyzed also; the tongue is deviated, and we cannot assign a reason for the fact, but the eyelids retain their power of motion. Paralysis may, as we have stated, be the result of a disease of the muscles. This is observed sometimes after rheumatic pains of very great duration, or when a muscle has been kept for a long time in a state of complete immobility; the muscular tissue becomes atrophied, and may for ever lose the power of contracting.

In our next lecture we will study the perversions of motion.

ORIGINAL CONTRIBUTIONS.

ROYAL BERKSHIRE HOSPITAL.

SURGICAL REPORTS AND OBSERVATIONS.

By F. A. BULLEY, Esq., F.R.C.S., Surgeon to the Hospital.

PARTIAL DISLOCATION OF THE ANKLE-JOINT; THE TIBIA BEING THROWN FORWARDS UPON THE NAVICULAR BONE; THE FIBULA AND MALLEOLUS INTERNUS UNBROKEN.

Mr. Owen M., a very tall and heavy man, sixty-six years of age, was admitted into the hospital late in the evening of Feb. 19, 1846, in consequence of his having been thrown from a cart, which, turning over while he lay upon the ground, had struck the instep with such force as to occasion a displacement of the ankle-joint. There was great shortening of the foot in front, with an equal elongation of the heel behind, the foot being slightly everted, and it was so firmly fixed in this position as to be incapable of movement in any direction without great suffering.

The tibia was found to have passed forwards over the articulating surface of the astragalus, its anterior part resting upon the upper portion of the navicular bone. The fibula, which had not passed so forward as the tibia, was apparently unbroken. The foot was not so greatly extended as is usually observed in these accidents. The least attempt to move the displaced parts was exceedingly painful. One or two endeavours had been made to effect the reduction before his admission, but without success; it was, however, easily accomplished by the following simple process:—

An assistant taking hold of the limb just below the knee-joint, and securing it firmly with a counter-extending force, I grasped the foot, both before and behind the dislocated tibia, and, using a considerable amount of traction, drew it steadily lengthways in the direct axis of the limb until I had in some measure dislodged it from its unnatural position. When I had in this way drawn it as far as I was able, I suddenly bent the foot slightly upwards, and, while the assistant-surgeon was simultaneously pressing the lower end of the tibia backwards, the bone, through these combined efforts, suddenly slipped into its place with a perceptible snap. He was now immediately able to move the joint in the natural manner, its free motion being of course somewhat restricted by the swelling which had taken place since the accident.

R. Lotic plumbi acetatis dilut. to be constantly applied over the joint.

The patient, being of a very plethoric habit, was ordered to be bled ad ℥xij , to moderate or prevent any inflammation which might ensue from the unavoidable laceration of the ligaments, and to take a colocyth and calomel pill, and an opening draught, in the morning.

20. Has passed a tolerably comfortable night, and the swelling is not so great as last evening. There is considerable ecchymosis round the joint; as far as I am capable of judging, the malleolus internus has not been broken by the injury. The limb to be kept in a raised position.

R. Aeid. acetici, ℥ij ; spt. camphoræ, ℥j ; aquæ, ℥ij . M. ft. lotio. To be used warm during the day, and at night mixed in a bran-poultice.

From this period he gradually recovered from the effects of the accident, without experiencing any tendency to subsequent displacement, notwithstanding no particular means were taken to prevent it; and on the 4th of March, fourteen days from the receipt of the injury, the joint had become so far restored to its natural condition that he was able to go about the ward on crutches, and could even bear gently upon the limb without any great pain; he was, therefore, discharged from the hospital, with orders to return every other day to have a hot-water pump-bath, from the use of which, previous to his discharge, he had derived great benefit. At the end of eight weeks he was fully able to resume his usual occupation, although a slight stiffness remained for some time afterwards.

OBSERVATIONS.

The foregoing case may be considered as a somewhat curious instance of a displacement of the tibia and fibula forwards from the astragalus, without a fracture of the latter bone, and in which it did not appear that the malleolus internus had been broken.

The manner in which the accident had happened would perhaps account for this peculiarity. The foot at the time forcibly extended, and neither inverted nor everted, being struck probably, and as the patient supposed, on its fore part by the iron rail of the cart, and driven backwards. The anterior portion of the capsular ligament, as well as the anterior fasciculi of the lateral ones, might by this means have been ruptured, thus leaving the astragalus free to be drawn from under the tibia by a violent and sudden action of the muscles of the calf; and in this way, under extreme tension of the ligaments behind, a simple dislocation might happen without fracture of these bones, which, according to the opinion of surgical authors, almost invariably occurs in these displacements. That it had not happened, however, in this case is presumable, and indeed evident, from the little or no difficulty experienced in keeping the parts in their natural position after their reduction, which would not have been the case if these bones had been broken.

The circumstance of his being able to get about in the hospital so soon after the accident would lead to the same conclusion.

DISLOCATION OF THE ELBOW, WITH A SINGULAR DISPLACEMENT OF THE RADIUS.

Samuel F., a healthy-looking, muscular man, guard to a night train on the Great Western

Railway, was admitted into the hospital, on account of a dislocation of the ulna and radius, caused by his having fallen from a truck, and pitching with great force on his extended hand, while the train was in motion. The limb was considerably shortened.

He was suffering excessive pain in the joint, and pain and some numbness were felt extending downwards in the course of the ulnar nerve as far as its digital extremities, where he described his sensations as most agonizing.

This may probably have arisen from a part of the coronoid process pressing on and irritating the nerve, after the displacement had taken place, as he found the excruciating pain almost instantaneously diminish as soon as the reduction was accomplished.

The joint was greatly distorted, and was held by the persons who brought him, in a gently flexed position, which he said was the easiest to him; the slightest attempt at further flexure or extension causing him excessive pain.

The ulna had been thrown backwards and projected on the posterior surface of the humerus, the coronoid process lying over the cavity destined to receive the olecranon. The tendon of the triceps appeared to be in a state of tonic spasm. On the fore-part of the joint the biceps, and brachialis internus muscles were greatly on the stretch. The head of the radius was curiously displaced, being thrown, as it were, across the ulna, and lying a little above and to the outer side of the usual situation of the coronoid process on the fore part of the joint. In this position it was distinctly perceptible to the feel, the superincumbent soft parts being as yet but slightly swelled.

Extension was made in a nearly straight direction, the arm being fixed by an assistant, and, after steadily continuing traction in this way for about two minutes, the reduction of the ulna was effected, the head of the radius, although drawn downwards, still lying on the fore part of the ulna. Flexure was still difficult and painful, from the head of the radius being pressed upwards against the inner condyle, in the attempts to perform this motion; after some time, however, I succeeded, by gradual compression with my fingers, in moving this bone outwards into its natural position. He could now bend the joint with comparative ease, as far, at least, as the probably injured state of the ligaments would allow; and as I was satisfied that reduction had been fully accomplished, and that the radius had no tendency to become again displaced, he was removed to the accident-ward, and leeches were freely applied round the joint. Hot fomentations to be constantly used during the night. The joint to be kept in a raised position, to moderate or prevent inflammation. To take house medicine.

19. Has been comparatively free from pain in the joint, but complains of a shooting sensation, alternating with numbness, along the course of the ulnar nerve. A cataplasm of vinegar and water and bran, large enough to envelop the arm and outer part of the hand, to be applied. There is some swelling and ecchymosis round the joint.

23. Much general improvement and diminution of the swelling, but the neuralgic pain continues.

R. Extract belladonnæ, ℥j ; lin. saponis, 3℥j . ft. liniment. bis die infricand. A cold saturnine lotion, to be used in the intervals.

26. The neuralgic pain has ceased. A week having elapsed since the receipt of the injury, passive motion was commenced and continued for a quarter of an hour, without inducing any particular pain in the joint. A figure-of-eight bandage wetted with the cold lotion was applied.

27. The passive motion has been continued, without inducing inflammation, or even pain in the joint. The hot-water douche pump to be used twice a day for a quarter of an hour each time. As there was some difficulty in completely extending the arm, he was ordered to swing a weight of 14lb. in the hand, every now and then, for a quarter of an hour at a time.

30. Has been using passive motion and the

other means since last report, and he can now move the joint with tolerable ease in all directions.

R. Barbad. naphthæ, ℥iv ; camph. pulv., 3℥j ; olei rosmarin., ℥j ; olei terebinth., ℥ss . M. ft. liniment. sæpe infricand.

June 1. These means having been assiduously persevered in, he has now, fourteen days from the date of the accident, scarcely any pain in the joint, and he is able to perform every movement of it with tolerable ease and freedom; he was accordingly ordered to be discharged from the hospital.

7. He called as an out-patient, and told me that he had resumed his usual occupation on the railroad, and that he felt but little or no inconvenience in using his arm.

OBSERVATIONS.

I should not have been so minute in detailing this case, but that I thought the accident of so singular a nature as to be worthy of being accurately recorded. I must confess that I feel at a loss to understand how the peculiar displacement of the radius which occurred, could have been produced. Instances of dislocation of this bone, forwards alone or with the ulna broken, and backwards with the ulna unbroken, are not rare; but I cannot call to mind any author having mentioned a case precisely similar to this, where its head had passed partially across the ulna anteriorly, and rested on the fore part of the inner condyle of the humerus, the ulna having passed behind.

I know of no way in which it could have occurred, except through the medium of the pronator radii teres muscle, which at the moment of dislocation, when the annular ligament was ruptured, might, from the peculiar position of the arm, have been thrown into strong action, and so have drawn the head of the radius suddenly towards the ulna, while the force continuing pressed it upwards and forwards on the condyle. Whether a strong and somewhat irregular action of this muscle, while the hand was in pronation, would produce this effect, I am not prepared to say, but I think it probable it might do so after the annular ligament had been ruptured by the violence of the accident.

It will be observed that in both the foregoing cases I made use of the hot douche pump-bath, to favour the restoration of the functions of the joints; and in these, as in a great many similar cases in which I have employed it, it appeared to act very beneficially; but as these means are not always available, except under great expense, by the employment of a complex hydraulic apparatus, it may not be out of place to describe the simple mechanical contrivance I have brought into use at the hospital, which appears to produce all the good effects of this mode of treatment, as practised at the hot wells of Bath, Buxton, and many other places where the natural hot streams favour its easy application.

Sir B. Brodie, speaking of this method of treatment, remarks, "I have sometimes tried the effect of pumping hot water on a stiff joint as recommended by Le Dran, and practised at some watering-places. The blow of a column of water from a height of several feet produces considerable friction, even so as to excoriate the surface, with which are combined the relaxing powers of heat and moisture."

It is needless to remark, that in the cases of stiffness of the joints resulting from dislocations and fractures in the neighbourhood of the articulations, and chronic rheumatic affections, sent as a last resource to such places as I have mentioned for relief, the principal and, often, only treatment has consisted in the application of the hot douche-bath; and as it is fair to infer that its good effects are to be referred to the application of the water in this way, rather than to any particular virtue in the water itself, I have subjoined the following simple method of applying it.

From the bottom of an ordinary hot-water bath, a short curved leaden pipe, of about two inches diameter, leads into the barrel of an engine or force pump, fixed against that part of the wall nearest to the corner of the bath in which

This pipe has been inserted. The portion of it connected with the bath should be covered with a perforated brass cap to prevent its being choked up by substances falling into it. From the upper part of the pump a leaden pipe of large calibre is made to pass upwards to the ceiling of the room, and there, curling shortly round, conveys the water downwards through a smaller tube, which is made to fall over the centre of the bath, to which is connected a flexible india-rubber hose of about a yard in length. By this means the hot water may be conveyed to any part of the body requiring it. To make the stream, which would otherwise be intermittent, of greater strength and more continuous, an air-vessel is inserted in some part of the rising tube, the best position for it being about a yard from its attachment to the pump; and in this way a regularly-unintermitting application of the water is produced.

On filling the bath about half full of hot water, it is drawn, by working the handle through the short tube, into the barrel of the pump; thence through the air-vessel and up the rising tube; and, having been applied to the affected part, falls into the bath, and is again and again made to perform the circuit until the temperature of the water has fallen so low by its repeated passage through the pump and tubes as to require a fresh quantity of hot water to be let into the bath, and thus its action may be continued *ad infinitum*.

I have now used this method of applying hot water in upwards of a hundred and fifty such cases as I have mentioned, and, judging from the results, have every reason to believe it is a most valuable remedy in the treatment of stiffness after dislocations and fractures near the joints, and in cases of chronic rheumatism where the ordinary modes of treatment have appeared to have been unsuccessful.

OBSERVATIONS ON OPHTHALMIC SURGERY.

By H. HAYNES WALTON, Esq.,

Surgeon to the Central London Ophthalmic Hospital, and to the St. Pancras Royal General Dispensary, &c. &c.

ADHERENT IRIS AND CLOSURE OF THE PUPIL IN THE ONE EYE, WITH CATARACT IN THE OTHER; OPERATIONS PERFORMED IN EACH INSTANCE; RESULTS; REMARKS.

H. M., aged seventeen, admitted as an out-patient at the Central London Ophthalmic Hospital, Nov. 4, 1846.

Occupation.—A clerk in a news-office.

Symptoms.—The right pupil, which is of a medium size, is closed by a grey-coloured deposit of lymph, on which are a few dark brown specks. The iris is of a light blue colour, neither puckered nor bulging, nor exhibiting any abnormal condition, save that its pupillary margin is adherent. The globe is of a natural firmness, and there is no evidence of the presence of inflammation in any of its textures. With this eye he can but just discern light from darkness. The left eye is quite healthy. His general health is good.

History.—A few weeks ago he discovered by accident that one of his eyes was useless as an organ of vision. Beyond this he cannot give any information.

By the anterior operation a needle is passed through the lymph in the pupil into the crystalline lens, and its handle rotated several times between the finger and thumb.

July 20, 1847. This is the first time the patient has returned since the above date. I have so far forgotten the case that I cannot call it to mind without referring to my note-book. There is now a capsulo-lenticular cataract in the other eye (the left). The capsule is only slightly opaque, the iris is quite healthy, the pupil acting freely.

On the 6th of the present month he remarked to his friends that his vision was slightly misty, which indistinctness has increased up to the present time. It is necessary for him to be led from place to place. In the right eye the iris has fallen back in a slight degree, thereby enlarging the capacity of the anterior chamber. Ordered

a solution of atropine to be dropped into the left eye daily.

July 22. The pupil is fully dilated. The anterior operation for solution is performed; the capsule but slightly lacerated. On the right eye is repeated the operation that was performed on the 4th of November, 1846, the needle being introduced into a different spot of the lymph.

Sept. 1. From the extensive manner in which the iris has receded in the right eye, the crystalline lens must be removed. The lymph is divided vertically through its centre with a very broad needle, which is introduced through the cornea, the intention being to make an aperture, which it is hoped may become larger by the contraction of the divided portions.

Oct. 1. The operation has been productive of benefit, but not to the extent expected; he can, however, see large objects through the last-made aperture with tolerable distinctness. The broad needle is again used, but in a lateral direction. The capsule of the left eye is becoming more and more flattened.

Nov. 1. He came to the hospital alone. The last use of the broad needle has been of service in obtaining a larger opening than has hitherto existed, and vision is proportionably benefited. The capsule in the other eye has undergone partial absorption; in the centre there is a clear spot of small size. With this eye he can, in a good light, distinguish the different kinds of money—gold from silver, and silver from copper.

Dec. 11. In the right eye, the lymph has become partly detached from the inner edge of the pupil; an attempt is made to separate it to a greater extent, but the amount of force that seems requisite is not considered justifiable. Blood is effused into the anterior chamber; its source is uncertain. I rather suspect it is from the iris, which must have been pricked with the needle. The aqueous humour has escaped.

13. The aqueous humour is resecreted, and the blood absorbed. There is slight inflammation of the conjunctiva.

R. Hyd. chl., gr. ij.; ext. chl. comp., gr. x. M. ft. pil. ij. To be taken to-night.

15. The inflammation of the conjunctiva has almost disappeared. Vision not quite so good as before the operation.

17. The capsule of the left eye is freely divided in a perpendicular direction, and a clear space of nearly the size of the pupil obtained. To his inexpressible astonishment and delight, he sees better than he has yet seen. The temporary interruption to the vision of the right eye has passed away. He is enjoined not to use his eyes about minute objects.

23. With properly adapted glasses he can read ordinary type. This power is obtained principally by the left eye. He is directed not to attempt for several weeks to use the glasses either temporarily or habitually.

I have not made any allusion to the condition of the right capsule, but spoken only of the lymph that closed the pupil. It was not possible to ascertain the state of the capsule, but that it was thickened there is every probability.

Remarks.

The first point of interest that I shall notice is the cause or origin of the condition of the right eye in which I first saw it. That there had been inflammation of some part or parts of the eye there can be no doubt, and also of its having been of a chronic and insidious nature, since its existence was wholly unheeded. A question arises concerning how far the iris was involved in that inflammatory action. Although we almost always see iritis as an active disease, with some or all of the tissues of the eye involved, and existing with which is more or less constitutional disturbance, it must not be supposed that it does not sometimes assume a chronic form. In this latter variety, pain and redness might be nearly or altogether absent; nevertheless a large quantity of lymph may be deposited, and eventually as much damage effected as in the acute form, to which, in symptoms, it is so much contrasted.

I am disposed to regard the deposit of lymph

in the pupil as the result of inflammation of the crystalline capsule, and not of the iris. I do not form any opinion from the unchanged state of the iris, because it was neither discoloured nor altered in structure—for often after severe inflammation it recovers without leaving a trace of morbid change—but on the case of the adherent pupil, that being a material assistance in forming a diagnosis.

It will be remembered that the iris was not in a contracted state, but of the size of its fellow. So far as I know, iritis never occurs in an acute or chronic form, without the pupil becoming contracted, except there had previously existed some disease in the eye, whereby the pupil was in a state of permanent dilatation when the iris was invaded by inflammation.

It is to inflammation of the capsule of the lens alone that I attribute the deposit of lymph; and I think that the iris, without being itself involved, became merely adherent to the lymph against which it rested or was in contact.

It is well known that inflammation of the capsule often spreads to the crystalline lens; but it is evident that such was not the case here.

It is not usual to refer to inflammation as a cause of cataract, nor do I think that the hard cataract of old age is connected with such a source. On the other hand, I feel confident that soft cataract, more particularly when capsulo-lenticular, which, indeed, it mostly is, has frequently such an origin; to which, also, I am disposed to attribute capsular opacity occurring in old persons. I must not, however, insist in this statement congenital cataract, since causes which induce its formation are quite hidden from our observation.

In the instance before us, I think we have an example in the right eye of the inflammatory condition exceeding its accustomed limits.

It was at the solicitation of the patient to remove the deformity that I operated on the right eye, the other being yet sound. I should not otherwise have interfered. This operation I selected is that devised by Mr. Tyrrell, and called by him drilling. It is especially applicable to these cases, as well as those of capsular opacity, with adherent iris. I have frequently resorted to it with success. While a pupil of Mr. Tyrrell I had ample opportunity of appreciating its value. The following are his instructions for its performance:—"The patient, being placed as if to undergo the anterior operation for solution, I have passed a very fine straight needle through the cornea at the outer part; and then, directing the point to the anterior capsule of the lens close to the inner margin of the pupil (taking care not to injure the iris), and causing the instrument to penetrate the capsule, and enter the substance of the lens to the extent of about one-sixteenth of an inch, I have rotated the handle of the needle between the fore finger and thumb, so as to make the point act as a drill, and have thus secured an opening more free than could be effected by a simple puncture; then I have withdrawn the needle."

The advantages of this great addition to ophthalmic surgery are—1. It causes removal of the lens, at the same time that it is effecting the formation of an artificial pupil; for, by introducing the needle at each operation into a part of lymph or opaque capsule yet unpenetrated, the central position loses so much of its support that it can usually be easily detached, or the partitions between the apertures may be broken down and a useful pupil formed. 2. The comparatively slight injury that it inflicts; for in cases requiring its employment there has generally preceded so much inflammation, notwithstanding perhaps at a remote period, as to render perilous any rough usage.

The plan of procedure thus described is so superior to that of dividing the lens and the deposit of lymph or opaque capsule with the scissors, at the same time that the iris cut through; and then extracting the comminuted lens, or at some subsequent operation depressing it; that a surgeon would, I think, always adopt it, unless he were ignorant of such valuable measures.

By a reference to systematic works on the subject it will be easy to discern, from the manner in which the old recommended plan is treated and dismissed, that it must have been very unsatisfactory.

In proportion to the density of the substance, whether lymph or capsule, that occupies the pupil, is the difficulty of forming an artificial opening, so that at times it becomes necessary to resort to Maunoir's operation after the lens is absorbed. Drilling should be repeated till the lens is quite removed.

My object in using the broad needle has been mentioned. It is surprising how little patent the opening was after all the effectual divisions; there was an almost total want of contractibility.

Had the left eye been destroyed I should have divided the iris, and so made a larger pupil; but, with the sight in one organ so perfect, such an act would be imprudent, since the axes of the eyes would not correspond.

Drilling does not throw difficulties in the formation of a pupil by division of the iris, but facilitates it.

The rapidity of formation of the cataract in the left eye was remarkable, and is in favour of the idea of an inflammatory origin. It will be seen, by reference to the notes, that only one operation was necessary for the absorption of the lens. I was determined to proceed most cautiously, to do but little at my first operation, and not to repeat it while I was sure that ab-

sorption was proceeding. My caution was directed by a knowledge of the fact that, at about the age of my patient, the greatest number of unsuccessful needle cases occurs. If surgeons would but exercise patience, they would find that the needle need not be used so freely or so frequently as is usually the practice, and greater success would attend their endeavours.

I shall conclude this paper by two quotations from the author to whom I have before referred:—"I frequently see cases in which the operation has failed, and am satisfied that the failure generally results from doing too much at once, or using the needle too freely." Again, in alluding to his early practice of attempting to facilitate the removal of the cataract by dividing it freely, or, what is commonly spoken of, as *breaking up the lens*, he says—"But experience soon taught me that the advantages gained in some cases were more than counterbalanced by the frequent occurrence of inflammation, and by the increase of the number of cases of failure. In fact, the more experience I have had the more cautious I have become."

13, Bernard-street, Russell-square, Feb. 7.

STATISTICAL ACCOUNT OF THE ACCIDENTS BROUGHT TO THE LONDON HOSPITAL DURING THE YEAR 1847.

Admitted as In-patients No. 2396 In-patients—Male No. 1781 Out-patients—Male No. 4216
Treated as Out-patients .. 5881 Female .. 615 Female .. 1665

Total during the year 8277 Total In-patients 2396 Total Out-patients 5881

CONSISTING OF THE FOLLOWING CASES:—

	No.	IN-PATIENTS.			OUT-PATIENTS.		
		Male.	Female.	Total.	Male.	Female.	Total.
Fractures	1052	392	105	497	416	139	555
Wounds	1879	289	110	399	1100	380	1480
Contusions	3362	663	223	886	1800	676	2476
Sprains	847	84	27	111	470	266	736
Dislocations	110	21	4	25	67	18	85
Concussions	61	47	2	49	1	1	2
Burns and Scalds	462	106	76	182	158	122	280
Hernia	76	43	30	72	4	..	4
Bites of Dogs	64	4	1	5	46	13	59
Attempts at Suicide	18	9	9	18	..	..	..
Various	356	124	28	152	154	50	204
Total during the year ..	8277	1781	615	2396	4216	1665	5881

THE FRACTURES
Consisted of the following cases:

	In-patients.	Out-patients.	Total.
Skull	14	1	15
Face	13	11	24
Spine	3	..	3
Ribs	137	35	172
Sternum	3	..	3
Elvis	6	..	6
Thigh	59	4	63
Patella	14	1	15
Leg	163	3	166
Foot	14	3	17
Shoulder-bone	6	24	30
Clavicle	9	134	143
Arm	21	42	63
Fore-arm	16	205	221
Hand	19	92	111
Total	497	555	1052

REPORT OF THE 2396 IN-PATIENTS.

	Discharged Cured.	Died.	Remain in Hospital.	Total.
Fractures	447	22	28	497
Wounds	376	5	18	399
Contusions	863	3	20	886
Sprains	98	1	2	101
Dislocations	25	..	..	25
Concussions	45	4	..	49
Burns and Scalds	159	16	7	182
Hernia	60	10	2	72
Bites of Dogs	5	..	..	5
Attempts at Suicide	16	2	..	18
Various	149	10	4	162
Total	2242	73	81	2396

† OF THIS NUMBER,
29 died on the first day of admission:—

Viz.—	No.
Fractures	6
Wounds	4
Sprains	1
Concussions	2
Burns	14
Suicide	1
Various	1

Total deaths 1st day 29

" 2nd " 11

" 3rd " 7

" 4th " 1

" 5th " 3

" 6th " 2

" 7th " 1

Total deaths in 1st week 64

TOTAL ACCIDENTS BROUGHT DURING THE LAST SIX YEARS.

Years.	Fractures.	Wounds.	Con- cussions.	Sprains.	Dislo- cations.	Concus- sions.	Burns or Scalds.	Hernia.	Bites of Dogs.	Attempts at Suicide.	Various.	Totals.
1842	846	1042	2141	567	97	52	265	75	68	38	328	5503
1843	899	1036	2123	592	111	48	327	65	52	46	368	5666
1844	1008	1844	2243	600	86	47	322	52	43	36	266	6102
1845	952	1361	2681	663	108	32	360	46	61	32	269	6555
1846	954	1584	3092	624	119	44	423	63	52	30	234	7019
1847	1052	1879	3362	847	110	51	462	76	64	18	356	8277
Total	6700	8046	15641	3963	631	274	2159	377	320	200	1821	39122

London Hospital, Jan. 8, 1848.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of Feb. 7; M. POUILLET in the Chair.

ELECTION OF A MEMBER IN THE SECTION OF GEOLOGY.—M. Constant Prévost was elected by 45 votes, against 15, divided between M. Ebelmen and M. Burat, in the place of the late M. Brongniart, sen.

THE COLD-WATER CURE IN INTERMITTENT FEVER.—M. L. Fleury communicated a paper on the influence of cold shower-baths in the treatment of intermittent fever. He not only recommended this method in simple recent ague, but also in ancient fevers complicated by visceral enlargements.

ETHER AND CHLOROFORM.

Professor Bouisson, of Montpellier, endeavoured to establish that chloroform was not called upon to replace ether in all instances, but that it was improper to employ both these substances indiscriminately in similar cases. It was in short operations that chloroform should be inhaled, on account of the rapidity of its action, of the shortness of the consequent insensibility, and of the dangers which were caused by prolonged anaesthesia. On the contrary, ether causing less disturbance in the system, and less peril when the inhalation was of long duration, should be employed in all cases of protracted operations.

M. Velpeau requested permission to say that it would be injurious to allow an opinion like that emitted by M. Bouisson to go before the public, with a sort of sanction of the institute. Ether and chloroform could not be in any way compared with each other; the latter should in every instance be substituted for the former. Its effects were more rapid, as complete, and, when administered with caution, chloroform was quite as innocent as ether.

NEW MODE OF SEPARATING THE FIBRINE OF THE BLOOD.—M. Chatér and M. Bouvier forward the analysis of the blood in a case of scurvy. The fibrine was increased in quantity and less plastic; the globules had diminished in number; the albumen was less coagulable, and the mass of the blood more alkaline, than during health. Having experienced some difficulty in separating the fibrine, the authors recommend, for the purpose of facilitating that operation, the addition to the human blood of a known quantity of ox's blood, which coagulates with great readiness, and permits the fibrine to be detected more easily.

TREATMENT OF CONSUMPTION BY INHALATIONS OF LIQUID CHLORINE.—M. Bobierre is of opinion that the action of chlorine in cases of phthisis should be attributed to the decomposition of water and the liberation of oxygen, rather than