lower districts in the direction of Huntly, Keith, Elgin, to Inverness. It affects the system first by pain in the throat; then follow headache, sickness, with expectoration of a dark bilious-looking substance, and general debility all over the body. In the city of Aberdeen to such an extent did this epidemic prevail last week, that for one or two days University and King's College—now in session—was closed; at Marischal College and University half the students were ill; at the Grammar School the same proportion were afflicted. At Gordon's Hospital, out of 150 boys, 55 were confined to their beds. The West-end Academy had to be shut up for a few days; and amongst those who are able to attend the public schools there was nothing to be heard but the incessant cough, as if the pupils were breathing an atmosphere of the most pestilential kind. On Sunday the churches and chapels were half empty, and so general had the epidemic become amongst the clergy, that supplies for several of the pulpits had to be got from Edinburgh and other places in the south. At Montrose, the epidemic has been equally alarming. One school was short 65 scholars; another 60; a third 50, and so on; the general deficiency in the muster in seven public schools being 350 scholars, and the total deficiency in all the schools 810 scholars. Some of the public works have been stopped for want of hands, and it may be said that in every family in these districts some one is ill. The weather, which had been damp and rainy, was considered to be the principal cause of the disease. We are glad to hear that very few deaths have occurred.

Sanitary Condition of the City of Edinburgh.—The Lord Provost and magistrates have issued a proclamation in reference to the prevalence of fever, which, it is stated, is "greatly aggravated and spread by the nauseous effluvia arising from the filthy and unwholesome state of many of the dwelling-houses and of the lanes and closes leading thereto, and by the accumulation of fetid matter in these places;" and calling on proprietors, factors, and others to cleanse houses, and on owners of accumulated dung to remove and discontinue these and similar nuisances. This is a movement in the right direction, and calculated to be useful. The monster evil, however, of which Edinburgh has to complain—the want of drains—remains intact. Judging from certain statements, it might be supposed that the authorities had hitherto done nothing to arrest the progress of disease. But this is not the case. In the months of June, July, August, September, and October, twenty-six men were specially employed in removing filth, and also in whitewashing houses occupied by the poor in closes in the West Port, Grassmarket, Cowgate, High-street, and Canongate; who cleaned 4345 rooms, closets, stairs, passages, cellars, and areas. Besides these, about 700 apartments were fumigated; and the disinfectiug process is in daily operation wherever it is reported fever has appeared. The kirk session of Greenside have recently had men employed in the poorer districts of that parish in removing offensive matter from cellars, and in cleansing houses, passages, and stairs; and the inspector of cleaning has supplied a number of poor persons with lime and chloride of lime to clean their houses themselves. Then, the authorities in the Canongate have a number of men engaged in the work of purification. All this is right and proper in its way, but nothing effectual can be attained so long as there is scarcely a close in Edinburgh privileged to have a drain, and while the causeway or pavement of a large number—from the state of the adjoining property—remains in its present disgraceful state. Till more extensive and more summary powers are obtained from the Legislature, it is difficult to see how any permanent improvement can be effected. Every close, however, in Edinburgh is swept at least once a day. It is, therefore, a mistake to suppose there are accumulations of filth in the closes and lanes of the city, if dung from stables, cow-byres, and a few piggeries is excepted, and which is at present specially protected, as private property, by act of Parliament. No doubt medical authority may compel the removal of cow, horse, or pig dung, if the particular accumulation is stated to be prejudicial to health, but there is no authority to prevent new accumulations being commenced next day; and this is a practical difficulty not easily surmounted. Piggeries have of late decreased considerably. There are still one or two of an offensive kind, but, unless complained against and proved to be a nuisance, there they remain. In the village of the Water of Leith two of the largest proprietors (the Messrs. Walker, of Coates) have resolved to extirpate piggeries from their property, and have already removed a great number; other proprietors are likely to follow the example. Thus, even agitation on the subject has had a beneficial tendency.

The Yellow Fever in New Orleans.—The lists of the names of those who died in New Orleans of the yellow fever, from the 5th of July to the 22nd of October, occupy two pages, or fourteen columns, of the *National* of that city. Total number of names, 2544. Of these 240 were Americans, 238 unknown, and the remainder English, Irish, French, German, Spanish, &c.—*New York Herald.*

The West Coast of Africa.—We regret to hear that several fatal cases of yellow fever have lately occurred on board the Siren, 16, Commander Chaloner, on the west coast of Africa. The fever was either brought on board from the Banana Islands, or was generated in boat-service in the river Sherbro, on the coast. The first-lieutenant of the Siren, Lieutenant Probert, has died, and three of the crew. Three others, who, as a prize crew, had been on shore at Sierra Leone, also died on board the Siren, making seven victims within a very short space of time. The last advices from the Siren stated that she was on her way to Ascension with ten more cases of fever on board, two of which were expected to prove fatal.

West Coast of Africa.—Mr. W. F. Daniell, a gentleman deservedly well known by his numerous contributions in this and other journals, on the medical topography of this pestilential climate, has just been appointed staff assistant-surgeon, and is about to proceed immediately to the former scene of his useful labours.

Poisoned Wells.—Any one passing Richmond-terrace, Clifton, during the last week or ten days, must have remarked the long string of doctors' carriages drawn up in the neighbourhood. The reason for this formidable display was the existence of illness in almost every second house, the inhabitants of which were afflicted with gastric fever. Nearly a whole school of young ladies were lying down ill at the same time, and there was scarcely a family which had not some of its members sick. It was not, however, until one death took place, and several were in imminent danger, that the cause of this extensive illness was discovered, when it turned out to be produced by the use of a spring which supplied the place, and whose waters had been imperceptibly poisoned by a sewer breaking into it, and so greatly vitiating their character as to cause gastric fever in every family using it! On being found out, of course the evil was remedied, but not before much mischief had been done, and the necessity both for a pure supply of water and an improved system of drainage shown.—*Bristol Times.*

Alleged Specific for Hydrophobia.—At the late Scientific Congress, at Venice, Dr. Barozzi Delviniotti read a paper in which he said the method for the cure of hydrophobia consists in the internal administration of the bark of the *Cynanchum erectum* of Lynnæus (otherwise called *Marsdaria erecta*), pulverized and mixed with equal proportions of the powder of a fly called by zoologists *Myriatis variabilis*. The effects of this drug are so unfailing that the monks, on communicating its composition to Professor Landerer, offered him at the same time a catalogue of 10,000 cures, many hundreds of which had been effected before the eyes of those then present. It is administered with equal success as well before as after the appearance of the malady. Professor Landerer had assured Dr. Delviniotti that he had himself seen several patients, previously unable even to look at water without spasmodic convulsions, gradually grow calm after the first dose of this remedy.

Chloroform—Its Application to Animals.—A few days ago, an interesting and successful experiment with this agent was tried on a lame horse, belonging to Mr. Reid, Drem, East Lothian. Dr. Robertson and Mr. F. Imlach, from Edinburgh, Dr. Lorimer from Haddington, and others, were present. About two ounces of the chloroform were poured on a piece of flannel cloth, below which was a sponge, the whole being placed in a tin case, which was tied over the horse's nose, and surrounded with a flannel bag. In three minutes and a half the animal fell over, and in five minutes it was perfectly insensible. When in that condition, Mr. Cockburn, veterinary surgeon, Haddington, performed the usually painful operation of cutting the nerves of sensation in both of its fore feet. On cutting the second nerve, the poor beast made a slight movement, showing the chloroform was beginning to lose its effect, but a second application of another ounce allowed the other two remaining nerves to be cut without a quiver. In twenty-five minutes from the commencement, the animal was again on its legs, now perfectly sound. Had it not been thus reduced to insensibility, it would have been bathed in perspiration by violent struggling from intense agony; while in this case there was not a turned hair on it, the operation, too, being much more easily and quickly performed.

The Substitute for Ether in Paris.—Some experiments with the chloroform were made for the first time in Paris by M. Velpeau, at the Hospital of the Charité, a few days ago. A woman from twenty-five to thirty years of age, suffering from a cancer of the breast, was made to inhale about a dozen drops of the chloroform on a handkerchief. At first she was merely affected with giddiness, but at the end of four or five minutes she fell off into a sleep. M. Velpeau then made some superficial incisions in the breast affected, and which is subsequently to be amputated. He next cut off a large wart from her hand with a bistoury; and the wound thus made, when bleeding abundantly, was deeply cauterized. The patient awoke in about two minutes, without having felt anything, and without any of that agitation which characterizes the awakening from ether. The chloroform was next applied to a woman of about fifty years of age, who had to undergo the opening of an abscess in the breast, and with precisely the same effect. The following, however, is a more interesting case, although the results obtained have been partly negative:—A man of thirty yeas of age, who was attacked with tetanus two days before, in consequence of a wound in the finger, was made to inhale ether several times without effect. At last the chloroform was tried, and at the end of two or three minutes he became insensible, without any previous agitation. The inhalation was continued about a quarter of an hour, and the sleep lasted about double that period. The muscles, which were previously the seat of tetanic convulsions, soon fell into a state of complete relaxation; the mouth opened naturally; the muscles of the trunk became supple, and the breathing was easy. When he awoke his state was evidently much improved, but after a time the convulsions recommenced. Several new attempts to make him inhale were made, and each time in the same way, with this difference, that on each successive trial the contraction of the muscles yielded less completely to the stupifying influence. On Friday his state was decidedly worse; the tetanic convulsions had reached the lower extremities, and it was thought likely that death would promptly end his sufferings. It is evident from this case that chloroform exercises a manifest action on the convulsed state of the muscles; and the persons who were present at the experiments were struck with the fact that the patients took it with perfect calm.

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APPOINTMENT. — On the 18th instant, the electors of the Travelling Fellowships appointed James Claudius Paxton, M.B., to be one of the fellows on that foundation, in the room of the late Dr. George Bell.

STATE OF THE PUBLIC HEALTH.—Influenza has been more prevalent in Edinburgh during the last few weeks than it has been for many years past. Although it has affected, more or less, nearly one-half of the inhabitants, it has fallen with especial severity on the young, many schools being in consequence obliged to be shut up. Dr. Stark, who has been collecting facts for the statistics of this disease, informs us that he has already got returns from various public and private schools, from which it appears that of 4925 children on the roll of the schools, 2213, or 44 per cent., were absent in consequence of this complaint on the 29th of November. A far greater proportion of the younger children were confined than of the older; for while in several schools the young children suffered in the proportion of 70 to 75 per cent., the proportion of absences among the elder children did not exceed 30 per cent. From the returns procured, it appears that the epidemic was most severe and general in high or exposed situations. Thus, while the boys in George Heriot's Hospital (on a high and exposed site) have suffered so severely, that a full half (96 boys) were in bed on Monday, those in George Watson's Hospital (on a low sheltered site) have been so slightly affected, that not above five required to be sent to the sick-room, and even these cases were slight. The influenza is clearly epidemic, depending for its origin on the state of the weather. It first appeared in Edinburgh during the thick, foggy, and frosty days of the 17th and 18th November, and attained its maximum of intensity on the re-appearance of the same thick, foggy, frosty weather on the 27th and 28th. This connection with the weather was very marked in some schools, but in none more so than in the Merchant Maiden Hospital. On Saturday, the 27th, before the thick, frosty fog came, only one girl was slightly colded, but by the next day no fewer than 50 were confined to bed.

WILLIAM FERGUSSON, ESQ.—An excellent lithographic portrait, by Maguire, of this distinguished surgeon, has just been published by subscription of the pupils and friends of this deservedly popular teacher, under the superintendence of Mr. Stone, of the Royal College of Surgeons; who, we hear intends publishing a uniform series of medical portraits of those men who are daily contributing to the advancement of medical and chirurgical knowledge. It is a faithful likeness of the original, and highly creditable to all concerned, and a valuable addition to the portfolio of the medical portrait-collector. We understand that portraits of Dr. Todd, the talented editor of "The Cyclopædia of Anatomy and Physiology," and Professor South, the translator of that valuable addition to medical literature, "Chelius' Surgery," will shortly follow the above.

DEATH FROM SUFFOCATION.—On Thursday morning last, as some of the neighbours were passing the door of a small house at Woodside, occupied by Dr. Mackie, their attention was arrested by the emission of smoke from the keyhole of the door and other apertures. On opening the door a most melancholy spectacle presented itself; before a still-burning fire lay the remains of the doctor. It is conjectured, as he was only slightly burned, that having gone to bed early in the morning, taking along with him his tobacco-pipe and some lucifer-matches, as was his practice, he had left an unextinguished match among the bedclothes, whence, it is thought, he had sprung from a sense of suffocation, and was found as described. He has practised nearly thirty years in this and the neighbouring localities, and his death will be lamented by many of the poorer classes.—*Aberdeen Journal.*

OBITUARY.—On the 2nd inst., suddenly, at his residence, No. 16, Weymouth-street, Portland-place, J. S. Campbell, M.D., aged 49.—Nov. 30, at Warrington, J. Kendrick, Esq., M.D., F.R.S., and senior physician to Warrington Dispensary, aged 77.—Nov. 28, at Manchester, in his 80th year, Edward Holme, Esq., M.D., F.L.S., president of the Manchester Literary and Philosophical Society, the Manchester Natural History Society, the Chetham Society, and for more than half a century intimately connected with the literature, science, and mental advancement of that community.—On the 2nd inst., in Hamilton-square, Woodside, aged 67, John Hughes, Esq., M.D.—On the 7th inst., in Clifford-street, in the 53rd year of his age, Robert Liston, Esq., F.R.S.

APOTHECARIES'-HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise from the Court of Assistants on the 2d instant, viz., Messrs. Edward Malton, Glastonbury; Thomas William Crosse, Norwich; and James Horneblow Williams, West Stockwith, Bawtry.

MORTALITY TABLE.

For the Week ending Saturday, Dec. 4, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	2454	1046
SPECIFIED CAUSES...	2446	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	638	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	144	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	231	157
Diseases of the Lungs, and of the other Organs of Respiration	994	333
Diseases of the Heart and Blood-vessels.....	77	34
Diseases of the Stomach, Liver, and other organs of Digestion	113	74
Diseases of the Kidneys, &c.	14	9
Childbirth, Diseases of the Uterus, &c.	19	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	17	7
Diseases of the Skin, Cellular Tissue, &c.	6	2
Old Age.....	165	65
Violence, Privation, Cold, and Intemperance.....	28	29

TO CORRESPONDENTS.

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

"Mr. E. J. Potter"—We cannot engage to insert articles without having an opportunity of judging by our own inspection of their adaptation to the columns of the *Medical Times.*

"Peto."—Our correspondent has erroneous views with regard to the subject on which he writes. Some standard authors ought to be consulted by him.

"M. B., 1846."—The Apothecaries' licence is necessary in order for the candidate to become eligible for the appointment. Moreover, it is a safeguard in practice against prosecution, private individuals having the power of laying an information as well as the society.

"S. T. Hinton, M.D."—The subject shall receive our early consideration, and a private note forwarded containing our opinion.

"Tyro" wishes to be informed where he can obtain pure chloroform, as he is very anxious to try some experiments upon himself and some of his friends. He says, "I have understood that it is an agent perfectly harmless, yet irresistibly powerful, and that it produces the most pleasing sensations." We should advise our correspondent not to engage in dangerous experiments, for the chloroform is not quite so harmless as he seems to think. We must decline, therefore, giving any advice where the genuine article may be obtained, as none but medical practitioners should use it. If, as our correspondent states, he is articled to a surgeon, he may employ his time better than "experimenting upon himself and friends" with a powerful anæsthetic agent.

"A Student of St. Bartholomew's."—We must decline publishing these very pungent remarks upon hospital management. Will our correspondent favour us with his name in confidence?

"Erinensis, Dublin."—The work on Fractures was reviewed in our pages about four months ago; it contains much valuable information.

"An Army Surgeon" writes us that the degrading duty of branding deserters still belongs to the surgeon, and suggests that upon each occasion when he is required to perform it he should plead ignorance of this department of surgery.

"W. P."—Qu. (1).—If the subject is distinctly stated in the indentures the master cannot refuse. (2). It is not requisite. (3). There are particular times when dissection can be carried on without interference with the other departments of study. (4). The attendance upon lectures ought to be regular.

"Mr. W. Smith, King-street, Belper."—We hope to be enabled to comply with our correspondent's wishes next week, though we have a large number of articles standing over for insertion.

"Mr. J. Jones, Llanfair, Montgomery."—The article may be relied on, and is used very extensively by many intelligent practitioners. We have not received the communication referred to, or it would have been acknowledged in the Notices to Correspondents.

"Mr. J. E. Lander, Shiffnal."—We think Mr. Stone, at the College of Surgeons.

"Mr. A. Markwick, Langham-place."—The account in the first part of the communication shall be attended to. A private communication shall be transmitted shortly.

Dr. Bushnan's note containing the anecdote in reference to Dieffenbach came too late to be inserted with his communication, which appeared last week. It is as follows: "When Dieffenbach was sent for in a great emergency to perform a most serious operation upon the Queen of Prussia, the King said to him at the moment of commencing, "Remember, M. Dieffenbach, you are about to operate upon your sovereign." "On the contrary, Sire," was the reply, "I shall endeavour to forget she is a queen, and to remember she is a woman."

"Mr. Thomas Batten, Coleford."—The subject shall receive an early notice from us.

"Mr. Robert Hepburn, 8, Davies-street, Berkeley-square." We cannot find the name in the "Medical Directory" for London or the country.

"A Member of the Pharmaceutical Society."—It is not our practice to offer an opinion upon an article without having tested its virtues. The letter is an advertisement, and cannot be inserted as such.

"A Member of the Medico-Chirurgical Society, Edinburgh," informs us that Dr. Simpson has recently tried the chloroform upon a young woman, a patient in the Maternity Hospital. He says, "that the duration of extent of the labour-pains were watched, and the anæsthetic agent carefully employed. The result was that the patient appeared to fall into an easy slumber; the pulse and pains, however, continuing the same as if she had not taken the chloroform. The labour proceeded to a favourable termination, and twins were born. In this case eight ounces of chloroform were used, and the patient kept in a state of insensibility for thirteen hours, without a single symptom occurring of an unfavourable kind." This agent has been used by many surgeons, not only in London but in different parts of the country, and all with whom we have had any communication speak of it as very superior to ether, though in some cases sickness and headache have followed its use.

"A Student, King's College."—The information can be obtained by applying to the beadle at Apothecaries' Hall.

"Caustic."—The publication of the letter would subject us to an action.

"M. D., Bristol."—Admission can be obtained to the library of the College of Surgeons, without membership. The library is certainly a very excellent one, and, according to Mr. Lawrence's opinion, not equalled by any other in the kingdom.

"A Reader from the Commencement."—The evidence was unavoidably postponed to make room for other matter; we have resumed it in the present number, which brings Mr. Lawrence's evidence to a close.

Letters and communications have also been received from Mr. Lloyd, Mackyalleth; Dr. Inman, Liverpool; Mr. Ranesdale, Wigan; Dr. Carson, Edinburgh; Mr. Millman, New Galloway; Dr. Kennedy, Woodhouse; A Reader from the Commencement; M. D., Bristol; A Student, King's College; A Member of the Medico-Chirurgical Society, Edinburgh; A Member of the Pharmaceutical Society; Mr. Robt. Hepburn, 8, Davies-street, Berkeley-square; Mr. Thos. Batten, Coleford; Dr. Bushnan; Mr. A. Markwick, Langham-place; Mr. J. E. Lander, Shiffnal; Mr. J. E. Jones, Llanfair, Montgomery; Mr. Wm. Smith, King-street, Belper; W. P.; An Army Surgeon; Erinensis, Dublin; A Student of St. Bartholomew's; Tyro; S. T. Hinton, M.D.; M. B., 1846; Peto.

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No. 429. **SUMMARY.** Dec. 18.

ORIGINAL LECTURES—
Inaugural Address delivered at St Thomas's Hospital by N. SIMONS, Esq. ... 169
A Course of Lectures on Surgery, by SAMUEL COOPER, Esq. ... 171
On the Physical Phenomena of Living Bodies, by Professor MATTEUCCI, of Pisa ... 172
ORIGINAL CONTRIBUTIONS—
Reports on the Diseases of Females, by EDWARD RIGBY, M.D. ... 173
Asphyxia and Convulsions produced by Chloroform, communicated by J. BEALES, Esq. ... 174
Puerperal Convulsions after Delivery, communicated by G. J. B. STEDMAN, Esq. ... 174
PROGRESS OF MEDICAL SCIENCE—
Academy of Medicine; Meeting of Dec. 7 ... 175
Academy of Sciences; Meeting of Dec. 6 ... 175
Chloroform—Dislocation of the Shoulder ... 175
Faculty of Medicine—Lectures on General Pathology, by Professor Andral ... 175
Hôpital de la Charité ... 176
Case of Tetanus, by M. Velpeau ... 176
MISCELLANEA ... 176
Hôpital des Cliniques ... 177
ROYAL MEDICAL AND CHIRURGICAL SOCIETY ... 177
Linnean Society of London ... 178
LEADERS—
The Metropolitan Sanitary Commission and the Union Surgeons ... 178
Sir Benjamin Brodie at St. Stephen's—Cramming and its Cure ... 179
The Science of Surgery at the Gloucester Infirmary ... 180
The Poor-law Guardians ... 180
Cholera and Influenza ... 180
The late Mr. Liston and the Stethoscope ... 181
Copy of a Letter to the Board of Guardians of the Walsall Union ... 182
Mr. Spooner on the Chesterfield Union ... 183
The Successful Cæsarean Section ... 183
Note on Chloroform ... 184
A County Inquest ... 184
Evidence taken before the Select Committee of the House of Commons ... 185
Mortality in the Metropolis ... 186
London University ... 187
GOSSIP OF THE WEEK ... 187
MORTALITY TABLE ... 188
TO CORRESPONDENTS ... 188

ORIGINAL LECTURES.

INAUGURAL ADDRESS

DELIVERED IN

ST. THOMAS'S HOSPITAL

By N. SIMON, Esq.,

ON ASSUMING THE CHAIR OF PATHOLOGY.

On Wednesday evening last N. Simon delivered an inaugural address on the occasion of assuming the duties of the chair of Pathology, now first established in St. Thomas's Hospital.

The lecturer, after referring to his personal feelings in his new relationship, thus proceeded to express his views on the subject of his future instructions and investigations:—Considering the circumstances under which I appear in this place, it appears to me that I shall best consult the interests of the science which I profess if I occupy your attention with a few remarks on the general philosophy and method of the science of pathology; those principles which unite it to all the other sciences of matter as a branch of one great common trunk. Firmly assured that no real, no effectual progress can be made in any one science otherwise than by a logic and method common to it with all the others, I propose testing the state of pathology by those principles of philosophy which have carried other physical sciences to their present high position. If chemistry possesses a numerical precision, if astronomy boasts of certitude, if a true science of physiology be dawning, surely these results are referable to no casual or arbitrary process of intellect, but are the due effects of an activity proceeding according to a fixed and definite law. For the profit of mankind Bacon lived not vainly; for two centuries his genius has been present in men's minds, like the clear horizon at daybreak, leading from the chaos of undisciplined observation to the sublime possibilities of inductive philosophy. If science has turned at any time to the idols of fancy, her empire has been then shaken till, forwarned and terrified, she has recollected that, like the figure which the King of Babylon saw, having a crown of gold and feet of clay, she must fall by the incongruity of her materials. It would be an instructive process to travel, on the present occasion, over pathological literature, and test its value at each epoch by the rules of strict inductive science, were such a review possible within the limits of our time. It will be sufficient for me to deal with the present condition of our science, and to inquire and elicit how far, by observations on the one hand, and inferences on the other, it may claim to be regarded as an inductive philosophy. It was Bacon's merit, that while throughout the whole extent, and in the universal spirit, of his writings he referred men to observation and experiments as the true source of cognitions, he never ceased to tell them that observations and experiments form but a process of putting questions to nature, that to suggest these questions is half the business of philosophy, and that to cultivate the faculty which imposes upon the understanding these tasks is the first business of the philosopher. To abstract, generalize, compare the known with the unknown, these, Bacon knew, are instinctive tendencies of the mind, but for which the impressions of the senses would never rise to the lowest level of ordinary experience. The true philosopher has learned to subject the perceptive faculties of the mind to the constructive. A vague curiosity is not the guide to the stores of philosophic truth, and those who are led by such an inducement are only groping in the dark. Glance, gentlemen, at the records of knowledge, and you will find that what is here enunciated as philosophic truth, is illustrated by historical facts. While eliminating what is casual from its entanglement with what is essential, while comparing phenomenon with phenomenon, while forming a theoretical connection between cause and effect, all the great augmentors of knowledge have toiled to obtain definite answers to definite questions, which derived their origin from the laws of the human intellect. I may state that I propose considering the condition of pathology in following its interpretation of phenomena, the doctrine of causes which it announces, and the principles of the classification of diseases; and it may be well first to remark, with respect to the subject-matter of science, that as physiology treats of the condition and phenomena of the living body in its ideal state of perfection, pathology professes to treat of whatever manifestations are observed of declension from that state, sometimes appearing as mere changes in the formation of a part; sometimes in the material productions which are taken cognizance of by chemistry and anatomy, such as in diabetes, cancer, and cataract; sometimes their manifestations take the form of abnormal motions; at other times in certain changes, as insensibility, pain, &c. All these are the materials of the pathologist; his first object is to interpret the facts of disease, and his interpretation bases itself upon the analogies of health: he has to render morbid phenomena intelligible to himself by terms denoting specifically their similitude or contact to healthy processes. When he speaks of hypertrophy of the heart, he designates the kind of diseased action that is going on; so, when he speaks of diabetes, he characterizes a normal secretion, plus sugar. In thus speaking of the several diseases he half expresses to the physiologist the direction in which their causes may be sought for. In other cases the formula is less easy of discovery, but, being found, is of more striking application. Look at the case of congenital malformations: not only do we find Martin Luther meeting in his way an ill-gotten calf, drawing inferences from that fact of the approach of the millennium, but even in our own day we hear of monsters; and now observe the process by which we have been led to the solution of the matter, and have been able to bring these variations from normal conditions within intelligible laws. The great conception which was present to the mind of Hunter has been established, that the embryo of each higher animal, in the progressive phases of its development, passes rapidly through the conditions of the creatures inferior to it. It is at once easy to account, by the light of this fact, for the abnormal form of such animals at birth; it is seen, that if the development of the embryo be stopped at any stage of its intra-uterine existence, one of its transient shapes will be fixed in the animal born as a permanent and specific deformity. To the discovery and determination of this law we owe it that all who are conversant with the history of the embryo of particular kinds of animals are able to refer any individual deformity to a definite period in the intra-uterine existence. It was under the apprehension of such a truth as this that Lord Bacon reported his followers to be patient and attentive observers, even of the apparent extravagancies of nature, in which his penetrative mind believed the influence of settled and determinate laws. Another instance I might mention, in the discovery and applications of the cell theory. Ten years ago, minute structural anatomy had no existence: scattered observations were all that occupied the place of what has since advanced very far towards the character of science. But here the great importance of a guarantee of the purity of the intellectual process in a sound logic and method is exhibited in a wrong application of the great discovery last named. The science of that discovery is, that all growth consists of cell development; that the cell is the universal form in which growth shows itself. Now, I have heard cell and cellular growth spoken of as if they were the *differentia*, instead of the *genera*, of growth. I have read in a work, otherwise talented, a suggestion of the similarity of the morbid action of cancer and typhus, on the ground of their products. No doubt in both we have similar growth, but to infer thence a relation of morbid action, is, it seems to me, as if one should expect similar results from the action of arsenic and sulphur on the system, because both are crystalline in their structure. To remain satisfied with the mere cell is, in my view, as unphilosophic as if the chemist were to accept the doctrine of crystalline formation as the ultimatum of his science. Next in order to the means of determining the nature of phenomena, as present in a given time and related to each other, is the method of discovering their causes. This is the function of the philosopher to which he attaches the highest importance, and it is also that by which the laity are most apt to measure his attainments, for the ignorance of natural causes has been in all ages regarded as the great hinderance to physical well-being. It is believed that this knowledge of the philosopher exempts him from the fears which harass the minds of other men; while the fears and apprehensions with which we ourselves approach disease are in proportion to our ignorance of its causes: as we miss them we are alarmed, as we see them we are encouraged. How far do we

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possess, in respect of disease, that privileged insight into causes which alone can give stability to our practice? It would be difficult in polite language to find phrases sufficiently powerful and expressive to stigmatize according to its merits the state of physiology as it existed at no very distant period. How could it exist, indeed, as a science, or exist at all, save as a dream of the fancy? The great improvement which has not only commenced, but is now in rapid progress, seems but a small part of the results of the wonderful and invaluable direction given to investigation by John Hunter. For our conviction of the sufficiency of the observed processes and phenomena of disease, as causes of particular morbid states, we have no longer *post hoc, propter hoc*. We want to know what are the intermediate connections and closest successions of the changes which we are able to detect. We know that causes of disease choose their peculiar organs of manifestation with as decided a preference as governs the combinations of chemical bodies. We know that, upon the introduction of noxious agents into the blood, all parts of the body, all its organs, are alike exposed to their influence; but how different are the effects which they produce! Opium acts on the brain, cantharides on the kidneys, arsenic on the stomach. In the abdominal flooding of cholera, in the snivelling of the present epidemic, we see the human body yielding uniformly under a common cause, similar phenomena in similar organs, with as much constancy as is observed in the changes of brute matter. Again, while we find an infinite variety in the influences from the anatomical world by which the human body is affected—while we find that the causes of disease are innumerable, chemical or mechanical violence, infection, variations from excitement of organs, morbid poisons, &c.—a remarkable contrast appears between the variety of causes on the one hand, and the singleness of effects in the same organs on the other. As excitability is the token of animal life, so also it is by this function that life becomes participant in diseases; and as excitement is the only language in which life answers the solicitations of the outer world, so, whatever may be the cause of disease, the organ can only manifest one kind of effect. If to this law there are some apparent exceptions, let it be borne in mind that they only exist in respect of diseases of which our ignorance is more manifest than our knowledge. The influence of these two laws in purifying our theories has been immense. Look at the imperfections of our knowledge, up to a late period, of *sympathies*. Every one can remember when sympathies were spoken of as ultimate facts, which no one thought of explaining. When two organs suffered together, they were said to sympathise, and the word got to be applied at last to the most accidental concurrence of disease, and men thought they were progressing to an explanation of a fact, while they were really only saying that two parts suffered at the same time. In the imagination of many who used it the phrase was the enunciation of a law—a remarkable instance of what Bacon calls *idolum fori*: for why should there be in hip disease, for example, any pain in the knee or elsewhere but in the hip? The course of improvement has been the following:—First of all were set out of the list of sympathies those cases where disease propagates itself by mere contact of tissues. These sympathies, if sympathies they have any right at all to be called, are only so by direct contact; and it was then seen that, as distinct parts of the body were united by the blood and nerves, so there are humoral sympathies and sympathies depending upon the nervous chords and centres for transmission and reflexion. When we see so many various organs suffer together in constitutional syphilis, when we see a thousand spots of uniform character upon the surface of the skin in smallpox, we are forced in each case to attribute these effects to one influence pervading the entire system, namely, the blood which supplies all its parts, and on which all have dependence. With respect to the classification of the facts and appearances of morbid conditions of the body I have first to observe, that though by no means the chief object of pathological studies, it furnishes to the inquirer a valuable standard by which to measure the success with which they are pursued. "When man is able," says Lord Bacon, "to call the creatures by their true names, then shall he again command them as he did in his first state." I understand, by a classification of disease, something more than a mere arrangement for convenience. There have been men in our profession who have believed all the mysteries of disease to be solved when they have cited their names in a dead language rather than in their own tongue. Now, gentlemen, the scientific classifier is to build his arrangement on the deepest analogies of nature; and no arrangement deserves to be dignified with the name of a system unless the principles on which it proceeds offer as unity the essence of the subject to be classified. A system presupposes a unity that shall pervade all the parts of the scientific structure, giving coherence to the whole. When this unity is absent, the metaphors and fancies of the human imagination become substituted for the true types of nature. It would be impossible to over-estimate the value to our subject of this consideration, or to state too strongly its necessity; but to realise it in our labours and studies we must be conversant with a more strict and rigid logic than the popular one. I rejoice in being able to refer to the published works and oral teaching of one whose authority I cannot too fully acknowledge. I mean one who, in the councils of our profession, is recognised by his wisdom, dignity, and eloquence; whose universal acquirements forbid our right to claim more than a part of his European fame; who still, in the lessons of his vast experience and consummate judgment, prolongs the memory of bright recollections, and enables us to boast in the senior surgeon of our hospital the nephew of Cline. According to the principle I have laid down, I do not hesitate to affirm that we have no true system of pathological classification. Lord Bacon deprecates the too early systemization of knowledge; he notes that a young man, when he knits and settles into shape, seldom grows to further stature; and knowledge, which, while existing in the form of aphorisms, is in growth, when moulded and shaped into a system, no more increases in bulk and substance. It may be, however, well to observe the course in which the generalizing faculty may be best employed. Suppose it were proposed by some one to classify all diseases, according to the respective colour of the skin which exists concurrently with each; the advocate would maintain his plan by plausible arguments, he would show how simple and natural his method was: for are not all colours fixed and determined by nature? He would point to his diagram, with its white, red, yellow, and green columns, into which would be distributed jaundice, scarlet fever, the measles, the green sickness, and so on, according to their chromatic analogies. Now, in the manifest absurdity of such an attempted arrangement, what is the flaw which strikes us? Nothing in the chromatic details: inflammation is red, bilious patients have yellow skins; but it professes to answer the requirements of reason, and to offer a unity; and to this demand its answer is irrelevant, for what has colour to do with life? With respect to the classification of the phenomena of the human body in health or disease, the only key lies in the thought that all life is a power, and that any system of arrangement will only be practicable when it can be exemplified as a scheme of possibilities included in the principle of life. As in the problem of pathology there are two elements, impressions from without and subjective excitability, so a twofold principle is to be sought for in accounting for the morbid conditions of the body. The investigation of this principle is often rendered very complicated by the remoteness of the primary exciting cause from the phenomena. It often happens that the symptoms under which a patient sinks are but the remote results of one exciting cause—but successive links in the chain of causes by which you are to ascend to the first processes of disease. I may instance the long series of causes and consequences in a case of dropsy or pleurisy. In some respects, subordinate to this subject, I may just mention the principles of the concurrence or non-concurrence of particular morbid phenomena, by which we may arrive at a knowledge of what diseases are, and what are not, compatible with each other. In respect of such as are incompatible, important distinctions may be drawn. First, there is John Hunter's dogma, that no two causes can be in operation in a part at the same time: a doctrine which seems, so far as it is true, to imply a preoccupation of the energies of life by the first disease. Some diseases seem to imply a polar antagonism to each other: such an opposition exists between tubercular disease and cancer. I need not tell you the importance of such opposition to throw light upon disease. Here, gentlemen, I pause, conscious of the infinite extent of the subject before me, feeling at every step how inadequately I can convey my sense of their immensity and interest. Suffice it if I have exemplified the character of that discipline and logic of observation by which only pathology can claim kindred with the universal philosophy. To my pupils I would suggest the motives which may urge them to exertion in this pursuit. First of all I have to refer you to its transcendent interest as an object of inquiry. The human mind can find no lasting satisfaction in a succession of unexplained phenomena. The most beautiful material objects of nature—the midnight sky with all its glories, which, from the time it was gazed on by the Chaldean, has riveted men's minds by its grandeur and sublimities, as is attested by the names of the planets and the fire-worship of various ages and countries—have their impression elevated as well as softened, as, through the discoveries of Kepler and Newton, it is known that they fulfil their courses with all the strictness of law. And, if such be the effect of increased knowledge of objects of natural beauty and loveliness, how much more so of that which is repulsive and awful while unexplained! How great a relief and satisfaction to find that disease and degeneration are no insoluble problems!—to find that the laws of life account for all; that nothing is abnormal; nothing, in part or member, foreign to the intention of the whole! But I do not rate highest this attraction of the science I profess. Your success in the art of prolonging human life and in lessening human agony will, *cæteris paribus*, be commensurate with your pathological knowledge. I am sure that an appeal to the experience of those whom I see present would lead to a corroboration of my assertion. The chief motives which should induce diligence in this department of art are included in those which tend to your advancement in study generally. I cannot, however, forget to remind you that the course which I invite you to take with me is no beaten track of a traditional school, but that the science we have to study is only in its first dawn; and the terms of my mission impose on me as a duty the institution of original researches to determine the processes by which disease comes on, or is removed. To co-operate with me in these researches, and to go before me in their vast results, I now strenuously exhort you. Industry, exerted in this direction, cannot possibly fail of its reward. If you have energies within you claiming a worthy occupation, if you have aspirations and a care for something more than mere sustenance, how can those energies be better bestowed than in alleviating the ills of human nature? I affirm the supreme dignity of the pursuit; to be a successful interpreter of Nature in this part of her dominions, is to confer a benefit on the world which will last as long as the human race itself. When, with the son of Sirach, you would "praise great men and your fathers who begat you in knowledge," where are the names at which the memory rejoices? Mark them, while their spirits seem to pass to and fro

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'twixt earth and heaven, as the angels in the patriarch's dream, laden with new burdens of blessing. Like Jenner, to stay the pestilence; like Watt, to remove the barriers of time and space; like Dante or Shakspere, to reveal the depths of the soul, or elevate and purify the affections; like Newton, Harvey, or Hunter, to be the minister and interpreter of Nature; like Plato, to legislate by reason is to achieve immortality. Doubt not, for a moment, that the great men whose names I have quoted had their reward in the clear foreknowledge of the veneration and love which should awaken at their name throughout all succeeding generations. This was their secret support in axious vigils; this gave them constancy, dignity, and calmness. In the midst of their anxious toils they have seen the continuity of human life flow down before them like a mighty river going to its outlet; they have read their destiny, and anticipated their reward. They have foreseen themselves incorporated into the organism of the human spirit, and in their silent chambers have consoled themselves with the thought, that they would be parts of humanity for ever.

The Hebrew legislator stood upon Mount Nebo; his feet were never to press the verdure of the promised land. He remembered the arid wastes, the burning sands, the bitter waters where he had striven with the huckstering race, careless of his inspiration, even when he struck for them the rock, and the waters flowed out, or when he stood between the quick and the dead, and the plague was stayed; but what were these things to him now? The plain of Canaan lay stretched beneath his gaze; yet it was not to his outer eye alone that the prospect was cheering: he penetrated into the futurity of the people for whom he had done and suffered so much, to prepare them for happiness; he saw the holy city, with its temple and its thronging crowds of joyful worshippers; loud on his mental ear swelled the prophetic minstrelsy; but "in the land of his people he had no inheritance: the Lord himself was his portion and his inheritance."

A COURSE

OF

LECTURES ON SURGERY.

BY

SAMUEL COOPER, Esq., F.R.S.,

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Lecture XXI.

Gentlemen,—Having considered, in the preceding lecture, the effects of heat on the tissues of the human body, we now come naturally to speak of the injurious results from exposure to cold. Cold has often been said to be a merely negative expression, implying the absence of heat; and this is, no doubt, philosophically correct, although we are accustomed to speak of cold as a positive and active energy. Strictly speaking, the term is comparative, and a body is called hot or cold only in relation to the temperature of some other body with which it is compared. Thus, if, while warming one hand at a fire, we cool the other by means of ice, and then plunge both of them into water at the common temperature of the same atmosphere, the water will feel cold to one and warm to the other. In relation to the average heat of the human body, a temperature below 98° may be said to be cold, since at that degree heat is commonly maintained in the system; but a temperature from 13 to 18 degrees lower than 98° is grateful to the feelings and invigorating to the health; and the mean of those temperatures—62°—seems best adapted to the power of the system, to generate more heat to supply the amount absorbed by such a temperature. Some constitutions possess the power of evolving heat in a much higher measure than others, a difference depending to a great extent upon the vigour of the heart and arterial system; and such persons are able to bear without any unpleasant sensations the same degree of cold which is to others a source of uneasiness. The circulation through the small cutaneous vessels, particularly of the extremities, the hands and feet, or in projecting parts, as the ears, nose, &c., is first affected by exposure to severe cold, the proportion of surface exposed to the atmosphere admitting, in those last mentioned, of a more considerable extraction of caloric. You have all remarked the rough appearance of the skin, sometimes likened to that of a plucked goose, which is caused by the contraction of the skin round the roots of the hair, together with the loss of colour which is present when the surface is in a state of natural warmth. You have also observed the livid colour of the nose, ears, fingers, &c.; this is caused by the weakness of the action of the heart and arterial system—the blood, being delayed in its course, does not undergo that change of colour which circulation through the lungs produces, and hence the colour of the parts in which it is stagnated. When this stoppage of circulation becomes total, heat can no longer be evolved, and mortification is the result. This is the process by which parts become frost-bitten. Whether parts can exhibit those characteristics, which we describe under the term frost-bitten, without being first brought from an extremely cold temperature into a warmer, is a matter of dispute. Cold is generally thought to be the predisposing cause, while the exciting cause is the change of temperature. Exposure to cold exerts its influence upon every part of the system; this was convincingly demonstrated in Russia during the last French war; it has also been repeatedly declared in narratives of voyages to the arctic regions. Its effects are seen in the reduced circulation, and consequent diminution of sensibility of parts. The hands become numb and unable to exercise the sense of touch, and a similar condition extends to the entire surface of the skin; the sense of taste and of smell are impaired, when not lost; the nervous system sinks under its influence; the mind loses its control, through the nerves and muscles, over the body; drowsiness and remarkable apathy come on; and, unless roused from this state by another, the person sleeps no more to awake. Many of you have been, no doubt, struck with the vivid illustration of these remarks, furnished in the narrative of Captain Cooke's voyages. Sir James Banks, Dr. Solander, and their companions found it almost impossible to resist the disposition to sleep, and they record that none who slept awoke afterwards.

In the campaigns of the French army in Russia the soldiers were exposed to an intense degree of cold; while marching together in close ranks they were able to maintain, in some measure, their animal heat, but when, from fatigue, they were obliged to leave their ranks, they fell by the wayside and perished on the road and in the ditches of snow, into which they fell. Baron Larrey relates that, from the action of the muscles growing weaker, the men reeled about as if drunk, and at last fell down; almost all who fell thus were found with their faces downwards: they were seized with numbness attended with pain, drowsiness followed, and death rapidly terminated their existence. Often before death hermorrhage from the nose, and involuntary discharge of urine, took place. The skin was not discoloured, nor was there any appearance of gangrene. He also states that before death the countenance became pale, a sort of idiotism prevailed, and sight and speech were impaired or lost. It must not be forgotten, in reading this account, that these men were not only starving with cold but also with hunger, and were exhausted by fatigue. Were I seriously to propose to consider the question, is it possible for a person frozen to death to recover? you would think I was trifling with your time. It has been, however, a matter of controversy with some, whether, in some instances of recovery from the effects of cold, the whole body was not completely frozen. In my opinion, the circulation of the whole body must be completely stopped, and death take place before the whole body can be frozen through. You may read of persons having lain in a frozen state for four or six days, and afterwards being restored to life, but I think in all such cases there have been only suspension of sensation and voluntary motion, &c., and that not even the greater part of the body had been frozen.

But if a person completely frozen cannot be restored, there are many cases of suspended animation arising from cold. The first thing which I would impress on your minds is, that in all these cases you must particularly guard against suddenly bringing the patient into a warmer temperature. Caloric must be communicated to the body in the most gradual manner. It was through a neglect of this important precaution that a most valuable medical officer of Napoleon's army in Russia lost his life. Suffering from severe cold and fasting, they removed him into a warmer atmosphere in the bivouac, and placed him by the fire. The prominent parts and those removed from the centre of circulation were seized with gangrene, which could be seen to spread over his body, his limbs became moist and swelled, and he died almost as suddenly as if from asphyxia.

Many soldiers, Larrey tells us, came to the bivouac, and after remaining a little while, fell down stiff dead into the fires by which they had been standing.

The person should be removed into a cold room and well rubbed with snow, or cloths dipped in cold water. Care must be taken to maintain this treatment a sufficiently long time, for patients recover after long suspension of the functions. On the return of sense and motion, the temperature of the room may be raised, aromatic spirituous applications substituted for the snow, and cordials administered. Warm wine may be thrown into the large intestines. When signs of animation increase, the body is to be placed in a warmer situation and rubbed with brandy. A diaphoretic drink should be given, and the patient well dried and put to bed, to remain there until he begins to sweat.

As I stated that the whole of the body could not be frozen before death, I may as well say that that statement does not extend to insects and fishes. Some of these, after being frozen so hard that you might chop them up with a hatchet, recover. With reference to the injury of a small part of the body by cold, as the nose or scrotum, I may say that, by the gradual communication of caloric, such parts may be recovered.

If you should not use the greatest caution in communicating heat, you will have a very rapid gangrene, which, to use Baron Larrey's expression, will take place before your eyes. In the campaign of the French army in Russia there was a period of intense cold, lasting for five days and five nights, during which Réaumur's thermometer sank 15° below zero; this was before the battle of Eylau, and the men were exposed in the snow to an intense frost; but it was not until the second day after the battle that any soldier complained of an accident; the two armies were opposite to each other, and the men on the *qui vive*. On the second day, however, after the battle, when the temperature had risen to 5° above zero, and a thaw commenced, the men began to complain of acute pain in the feet, numbness, heaviness, and prickings in their limbs, the ambulances were surrounded, and the surgeons were incessantly occupied with applications for assistance. The men, without exception, declared that while the cold lasted they had felt no pain, and that their complaint began with the thaw. In Russia and Germany, it is the practice to rub the parts affected with ice, cold water, and snow, so as to bring them from their actual temperature to that degree next above it, thus introducing the patient to a warmer state as gradually as possible; this treatment is pursued until sensibility and motion return. Such, also, is the course adopted in this country. Owing to the brittleness incident to the frozen state, care will be necessary in rub-

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bing a projecting part, as the nose, to avoid breaking it. When the faculties of sense and motion are restored, brandy or camphorated spirit of wine may be used instead of snow to rub the body with. The patient should have some mulled wine or a little tea, and be placed in a room where there is a fire. A part which has been improperly exposed to a too sudden heat, and has thereby been brought into the state of gangrene, may sometimes be, nevertheless, recovered by immersing it in water of a temperature near the freezing point; it must be kept in water till the swelling diminish, and then friction may be made.

ON THE PHYSICAL PHENOMENA OF LIVING BODIES.

By Professor MATTEUCCI, of Pisa.

PART XVII.

HEARING.

(Continued from page 132.)

The structure of the ear varies exceedingly in the different classes of animals. We shall confine ourselves here to a brief description of the ear of man.

The external part of this organ, termed *pinna* or *lobe of the ear*, consists of a supple and elastic fibro-cartilaginous plate, unattached in the greater part of its surface, and which may, in some measure, be looked upon as an expansion of the auditory tube or meatus. The movements of which the lobe of the ear in man is capable are exceedingly limited. The *auditory meatus* is scooped out of the temporal bone, but extends only to a very inconsiderable depth into the latter; it is intersected at its termination, obliquely to its axis, and closed by a fine and highly-elastic membrane, called *membrana tympani*. The *tympanum* is a cavity scooped out of the temporal bone, and has four openings: one of these is formed by the termination of the external meatus, and closed by the membrana tympani; opposite this there are two foramina, termed respectively *fenestra ovalis* and *fenestra rotunda*, each of them closed by a membrane expanded across. Finally, in the lower part of the tympanum there is a fourth aperture, which may be looked upon simply as the entrance to the Eustachian tube, which latter leads to the upper part of the pharynx. The interior of the tympanum is traversed by a chain of ossicles, termed respectively the hammerbone or *malleus*, the anvil or *incus*, the *orbicular* bone, and the stirrup or *stapes*. The hammerbone is attached parallelly to the membrana tympani in the manner of a solid radius, proceeding from the circumference to the centre of that membrane. The hammerbone is at one end articulated with the anvil, which, again, is articulated with the *orbicular*, and the latter with the stirrup, which finally abuts on the fenestra ovalis. Several muscles seem to impart to this chain of ossicles certain slight movements which effect contraction or elongation of the chain, and vary thus the degree of tension of the membranes on which it presses. Beyond the tympanum, and in the solid part of the bone, is the *internal ear*, formed of several cavities communicating with each other, and which are respectively called the *vestibulum*, the *semi-circular canals*, and the *cochlea*. The vestibulum occupies the central part, and communicates with the tympanum (through the fenestra ovalis) and with the three semi-circular canals. The cochlea, termed thus from its spiral form, terminates in the interior of the vestibule, and is divided from the tympanum by the fenestra rotunda. The vestibule and cochlea contain a liquid (called Cotugno's) in which the filaments of the acoustic nerve float.

Having thus briefly enumerated the principal parts of the ear of man, and of the higher animals, we will now proceed to study the propagation of the sonorous waves through these several parts, and subsequently endeavour to deduce from the results of our investigations the physical theory of audition.

The organ of hearing in man and the higher animals consists, then, of several membranes, osseous parts, air, and a liquid; the vibrations are propagated through these several substances, which are all capable of transmitting sound. This much is certain, therefore, that every component part of the ear may perform a share in the function assigned to that organ, but the science of acoustics gives us no perfectly satisfactory information as to the precise part assigned respectively to every one of the several componenta. We must have recourse here to comparative anatomy, experimental physiology, and pathology. The information gathered from these sciences enables us to determine the degree of importance that attaches respectively to every individual part of the ear in the performance of the function of audition, and to estimate the degree in which every individual part respectively contributes to the perfection and delicacy of the organ of hearing.

We find that the external and middle ear are wanting in a great many classes of animals, which, notwithstanding, we consider endowed with a sufficiently keen ear. Thus, for instance, in birds we find not a vestige of the pinna; reptiles have no *meatus externus;* and in fishes the organ consists simply of the internal ear. There is, however, one part which we find invariably present, viz., the vestibule, which is a membranous bag filled with a liquid in which the extremities or ramifications of the auditory nerve float. The mode in which that nerve terminates seems certainly the most judiciously adapted for the purpose which it is intended to subserve; the nerve, being reduced and attenuated to exceedingly minute filaments floating in a liquid, the points of contact are multiplied to the greatest possible extent.

We know that vibrations are propagated in liquids, as they are in membranes and all elastic bodies, dividing into vibratory portions separated by nodal lines; in liquids numerous vibratory movements may equally be propagated, and may coexist simultaneously without interfering with each other. It seems, also, proved by certain experiments of Cagnard-Latour, that vibrations are propagated more readily from the solid walls of a cavity to the liquid contained in it, if minute solid particles are dispersed through the latter, or even if they are fixed to the sides of the enclosing cavity. This is owing simply to the circumstance that the points of contact between the solid and the liquid are more numerous, and there is accordingly a multiplication of directions in which the vibrations may propagate themselves in a straight line from one to the other of these media, according to the inequalities presented by their surfaces. Such small solid particles are found in the liquid filling the labyrinth of the ear in certain fishes. We may accordingly conclude that the vestibule, or rather the mode of termination of the acoustic nerve, such as we find it in all animals, occupies a most important share in the function of hearing.

The undulations of the air, produced by a sonorous body, may arrive at the acoustic nerve, either through the osseous parts of the cranium in which the ear is enclosed, or through the column of air of the auricular canal. The ticking of a watch held between the teeth, or applied to any part of the head, is still heard with sufficient distinctness, although the auditory passages be strictly closed. Some persons, affected with difficulty of hearing, are enabled to hear distinctly by placing over the auricular canal, or pressing between the teeth, a small stick fixed in the centre of a reservoir of air behind which the sound is produced. The stethoscope of the physician serves principally as a solid cylinder, by means of which numerous points of contact are established between the sonorous body and the ear.

The column of air in the auditory meatus vibrates equally with the sonorous undulations excited in the surrounding air. Experience proves that a sound produced in a solid body is, *cæteris paribus*, much more distinctly heard when transmitted through a solid medium in immediate contact with the ear. On the other hand, sounds produced in the air, as in the case of all wind instruments, are the more distinct, the more considerable (within certain limits, of course) the quantity of vibrating air in communication with the auditory meatus. Now, when we find these two modes of propagation combined in a single organ, we cannot doubt but that they contribute powerfully to the perfection of the function of that organ. These principles may be applied to explain in a great measure the use of the pinna and the auditory meatus. These parts may, in fact, be looked upon as constituting an instrument analogous to the ear-trumpet, and which, from its peculiar form, collects and reflects towards the axis of the auricular canal a larger number of sonorous waves, and serves at the same time as a reservoir of air, to strengthen the sound; there can be no doubt but that the presence of this reservoir increases the intensity of the sounds yielded by musical instruments, both stringed and wind. Savart's bell held vibrating before a receptacle of air, and Marloye's monster diapason mounted on a large air-chest, demonstrate to evidence the effects produced by the resounding of masses of air surrounding the sonorous body. An analogous experiment to those with Savart's bell and Marloye's diapason may be made by approaching a diapason to the ear, or introducing it into the mouth: in the latter case the sound will acquire great intensity. In all these instances the sound is strengthened by the sonorous waves, which are reflected from the sides of the receptacles; and, at the same time, by the vibrations imparted to the mass of air and to the sides of these receptacles.

In animals with moveable pinna, the analogy of the latter with an ear-trumpet is strikingly evident. Thus we see animals, when pursued, throw the aperture of the pinna backwards, whereas, when pursuing their prey, the opening of the pinna is turned forwards. The external ear of man does not possess this faculty of motion, and differs, moreover, greatly in form from that of other animals. It seems exceedingly difficult to conceive the use of the pinna, and several instances might be adduced in which the absence of this appendage did not seem to interfere greatly with the auditory faculty. The least improbable explanation that we could offer would be this: considering the habitual position of man, the mobility of his head, and also the elegance of the latter, it would be impossible to endow the pinna with motory power without giving to it the shape of an ear-trumpet, in the manner of the monsters of mythology. The pinna is formed of an elastic cartilage, of which the plane is (at all events, as far as the greater portion is concerned) parallel to that of the membrana tympani, and consequently perpendicular to the axis of the auditory meatus; and this is, according to the laws of the propagation of vibrating movements, the best position that the pinna could possibly have been placed in, for the sonorous waves striking this membrane perpendicularly are more readily propagated in the internal ear, either by the solid walls of the auditory meatus, or by the column of air in the latter. When we wish to hear distinctly, we place the head in a position to make the pinna receive perpendicularly the sonorous waves.

It might be asked, why interpose the tympanum between the auditory meatus and the vestibule? We may reply to this, without hesitation, that the tympanum is not indispensable to audition, as is sufficiently demonstrated by its absence in several animals, and, in some instances, even in man (there are some cases on record of individuals endowed with the faculty of hearing, although deprived of the middle ear, either from original malformation or from the ravages of disease). Let us, however, hasten to add, that the middle ear, and the peculiar arrangements of its parts, tend to render the organ of hearing in man much more perfect and less liable to alterations than would be the case were this part omitted.

We will now proceed, in the first instance, to examine the way in which membranes vibrate. Savart has shown that membranes, when properly stretched, and placed near a sounding

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organ-tube or stringed instrument, vibrate in the same manner as if they were in contact with sounding bodies; and, upon covering them with sand, they are observed to divide into vibrating parts separated by the ordinary nodal lines. At each variation of the sound, new arrangements appear on the membranes, and these divisions are more readily and promptly produced on them than on plates of glass or metal. Savart has equally demonstrated that membranes alone present the peculiarity of dividing under the influence of one and the same sound in different fashions, although they be left unvaried in form, dimensions, and tension. Lastly, we may add that variations of the degree of tension of a membrane are attended with variations in its manner of dividing and vibrating under the influence of one and the same sound. From these facts collectively, we may deduce, that to propagate sounds in the interior of the ear, and to modify at will the intensity of the vibratory movements, it was desirable to close the auditory meatus with a stretched membrane, and to add in the interior of the organ an apparatus adapted to propagate the vibrations to the parts in contact with the acoustic nerve, and capable, moreover, under the direction of the will, to vary the tension of the membrane expanded across the meatus.

Take an ordinary ear-trumpet, and close the opening with a membrane to which you have previously affixed a small wooden stick, to enable you to vary the tension of the membrane. Upon applying this trumpet to your ear you will speedily perceive a considerable difference in the intensity of the sounds transmitted through the trumpet, according as the membrane is more or less tightly stretched; when the membrane is very tight, the sound will appear considerably less intense than when the membrane is relaxed. Perhaps, in the former case, the membrane divides more readily in yielding sounds which, although in unison with the original note, are less intense. In the human ear the tension of the membrana tympani might be varied in two different ways, viz., the chain of ossicles might be made to perform the part of the wooden stick of the preceding experiment, or the desired effect might be produced by modifying the density and elasticity of the air contained in the cavity of the tympanum. The second course of proceeding is not natural, and its application would require a certain degree of skill and a somewhat violent effort.

Another important part of the ear is the Eustachian tube, which leads from the cavity of the tympanum to the upper part of the pharynx, and serves to maintain a free and constant communication between the middle ear and the external air; by this means the air in the cavity of the tympanum is maintained at a uniform degree of moisture, and its elasticity on a par with that of the atmospheric air.

A species of temporary deafness may be contracted simply by shutting the mouth, stopping the nose, and then dilating the thoracic cavity to the greatest possible extent. The same effect may be produced by a deep and protracted expiration. This deafness continues a few instants, and a movement of deglutition is the most efficient means to remove it. In these two cases the air in the cavity of the tympanum is rendered either more or less dense than the external air, and the membrana tympani experiences a different tension, directed sometimes towards the external, at another towards the internal, part of the ear. Wollaston, who was the first to observee these facts, remarked that the temporary deafness contracted seems to relate more exclusively to grave sounds. Thus, he states that he could no longer distinctly hear the strong noise of a carriage rolling at a certain distance, whilst he readily perceived the slight sound produced by striking the table with the tip of his nail. A similar experiment may also be made with the ear-trumpet of one of the preceding experiments. If the membrane across the opening of the ear-trumpet be tightened, strong noises will be heard but indistinctly, whereas the ticking of a watch will be heard with greater distinctness than usual.

There are cases on record of individuals unable to hear an ordinary voice, and who could not carry on a conversation except in the midst of considerable noise, It must be assumed, in such cases, that the susceptibility of the organ of hearing, though greatly enfeebled, persists still for grave and deep sounds, and this may be accounted for in some measure upon the supposition that the membrana tympani has, in cases of this kind, lost the faculty of varying its tension under different circumstances.

The internal muscle of the malleus and that of the stapes may serve to modify the state of tension of the membrana tympani, under the direction of the will. Müller assumes that these muscles contract in consequence of a reflex movement, in the manner of the muscular fibres of the iris, under the influence of a vivid light. Under the impression of a violent and protracted noise, the stapes and malleus, by the contraction of their muscles, stretch the membranes to which they are respectively fixed, and give rise to a temporary deafness which, under such circumstances, cannot but prove salutary.

What is the function of the entire chain of ossicles? Why should there be a combination of four ossicles, instead of a single one? Why not suppress the fenestra rotunda, or the fenestra ovalis, or even the two? Our present knowledge of acoustics is too limited to enable us to reply satisfactorily to these questions.

The chain of ossicles serves, as already stated, to vary the degree of tension of the membranes to which its extremities are respectively affixed, and there can be no doubt but that it answers, moreover, in the ear the same purpose as the bridge does in a stringed instrument, and the chest in a drum. If we cover with sand one of the membranes of a drum, and strike the other, we see the sand vibrate and form into divisions, which vary according to the manner in which the chest is arranged and disposed. The chain of ossicles is a species of bridge suspended in the cavity of the tympanum, which not only propagates vibrations from one of its sides to the other, but receives, moreover, the shocks of the air. The membrane of the fenestra ovalis, which communicates with the vestibule, finds its elasticity and tension unquestionably better protected by being placed in a reservoir of air enclosed in the interior of the ear, than would be the case were this membrane in immediate contact with the atmosphere. More satisfactory replies than these may, perhaps, at no distant period be given to the above-proposed questions; but as the organ can exist and perform its functions, without either chain of ossicles, membrane, or cavity of the tympanum, this much must be admitted—that these components do not constitute the essential part of the organ of hearing, but contribute simply to its perfection and preservation.

With regard to the semicircular canals and cochlea, we have very little to say; it is generally supposed that the vibrations excited and transmitted through the solid walls in which the ear is encased, are transmitted through the semicircular canals and the cochlea to the acoustic nerve.

In conclusion, we have to offer a few remarks on the physical characteristics of sound, the comparison of the different sounds, and the limits to which sounds continue perceptible. Any excitation of whatsoever nature, communicated to the acoustic nerve, produces a sonorous sensation. The term "*sound*," in a more restricted sense, signifies a sonorous sensation continuing uniform for a certain time, and susceptible of comparison and measurement. *Sound*, properly speaking, differs accordingly from *noise* in this much, that the latter is the effect of a single shock, or of a series of irregular shocks; whereas, sound is the sonorous sensation experienced when the acoustic nerve receives a certain number of vibrations succeeding one another at uniform intervals. The acuteness or graveness of a sound depends upon the greater or less rapidity with which the vibrations succeed each other. The intensity of a sound depends upon the extent of the excursive movement of the vibrating parts.

Wollaston and Savart have endeavoured to determine the limits within which sounds continue perceptible to our ear. Savart has demonstrated that their limits extend much further than was formerly supposed, and that, to enable us to perceive very acute or very grave sounds, it suffices to increase their intensity. It results from his experiments that the limits within which sounds continue perceptible to our ear extend between 14 and 48,000 vibrations per second.

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.

In my last report (a) I commenced a series of cases connected with sterility, and, for the purpose of bringing them under some sort of arrangement, I proposed to divide them into the two classes of *organic* and *functional*. The present case which I offer to your notice is one depending on organic defect, and, therefore, belonging to the first class. I have condensed it from a very carefully drawn up report by my friend Mr. T. Safford Lee, under whose care the patient was, and who consulted me from time to time about her.

Miss H. S., aged twenty-six, residing at the distance of about sixty miles from town; small in stature, blonde, and healthy looking, but of very juvenile appearance.

Aug. 6, 1846. Has never menstruated, although at occasional but irregular intervals she has pain in the back and loins, with sense of fulness in the lower portion of the abdomen. The breasts are well formed; the nipples small, with all the appearance of virgin organs well developed; they are firm, and the glands distinct.

At about the age of fourteen both breasts became very large, with much tension amounting to pain; after a short time they gradually diminished, and are now of the ordinary size; attacks of pain occur now and then, but observe no regularity of period. Acknowledges to having a full amount of natural feelings connected with the genital organs, and that when the above-mentioned periods of abdominal fulness occur they are even strong; during the last two years these feelings of venereal excitement have increased. She has enjoyed excellent health, with the exception of frequent hysterical attacks when about eighteen or nineteen years of age.

Exam. per Vaginam.—The external parts are perfectly natural; on separating the nymphæ a cavity is observed corresponding to the orifice of the vagina, but it is only a depression, being merely a *cul de sac* of very trifling depth; no tumour or fulness is to be felt above it. I advised Mr. Lee to adapt a globular tent to this cavity, and to fix a compress in front by means of a firmly-applied T bandage: a plan which quite coincided with his own view of the case. He continued the application of tents for a week or ten days, producing gradual enlargement of the cavity.

Sept. 8. We were surprised to find that the finger now passed into a canal of about three inches in length, into which a tent was introduced.

9. On examination, Mr. Lee found that the orifice of this canal was capable of contracting upon the finger at the will of the patient, beyond which, for about half an inch, it had a rough, irregular surface, which was very tender, and as if it were raw to the touch, like recently-divided structure; beyond this there appeared a small but distinct canal, with a smooth surface like that of a mucous membrane; it was too small to admit the finger so as to ascertain its length.

(a) *Medical Times*, Aug. 7, 1847.

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12. A sponge tent has been applied daily; a larger one was now introduced.

17. The canal will now admit the finger with ease, and even two could be introduced. The length of the canal is three inches and a half. At its upper part Mr. Lee detected a small opening into which the uterine sound passed to the extent of fully half an inch; it produced no pain, and Mr. Lee thought he could perceive a slight weight at its extremity, which was moveable.

Exam. per Rectum.—While the uterine sound was in this position, Mr. Lee examined per rectum, and could trace it for about two inches and a half in the vagina; it then appeared to pass upwards, and he could not feel its point. When the sound was passed into the bladder, he could not feel any substance between it and the finger in the rectum beyond the parietes of both organs. A large bougie was introduced every night for a few weeks, and she returned to the country with instructions to continue its use.

Oct. 22. "Miss H. S. came again my charge," says Mr. Lee. "I found that she had been unable to retain the bougie, so that the canal had contracted considerably, especially at its upper part; the lower portion, near the os externum, having remained dilated; the upper part produced considerable resistance to the passage of the finger. She states that after she had been about a month in the country she was seised with considerable bearing-down pain, and a sense of forcing downwards; the abdomen at the time was swollen, and she experienced a good deal of uterine excitement. Both breasts felt distended, and the left one was painful. I again applied a sponge tent daily, and only discontinued it when the external parts became tender."

"Nov. 11. The canal is now much larger, but I cannot find a uterus."

13. The sponge tent has been retained two days, producing a good deal of pain in the back; on removing it, the canal is found much dilated, so as to admit three fingers. It is now more like the vagina, and at its upper part there is a small opening very much like the orifice of the os uteri.

21. Nothing has been introduced into the vagina for two days; it remains well dilated, although not quite so much as before. The great point now was to ascertain the existence of a uterus. Mr. Lee examined carefully per rectum whilst a small male catheter was in the bladder, but nothing of a uterus could be felt. The patient, who is in good health and spirits, states that considerable uterine excitement attended the removal of the tent yesterday, and this was followed by a discharge.

Dec. 12. Sponge tents have been daily applied, and the vagina is well dilated. At the upper and back portion a small fissure is felt, which is pervious, and the uterine sound passes through it to the extent of nearly an inch; it passes easily, without pain, and is apparently stopped by a solid body, which seems heavy. During the last week the feelings of uterine excitement have been more considerable, and she states that she had a red discharge preceded by pain in the back and headache. This occurred when she was not wearing a tent. The breasts at the same time were large and painful.

She returned home on January 1, 1847.

The history of this interesting case leaves off to a certain extent incomplete, owing to circumstances over which Mr. Lee had no control.

I made an examination when the vagina was well dilated, and felt convinced that I could detect an os uteri at its extremity, although at that time it was not pervious; whether or not the uterus was normally formed must remain for the present undecided; but there can be little doubt that the ovaries are natural and capable of performing their proper functions, not only from the red discharge which occurred without the presence of any distending body in the vagina, but also from its being preceded and accompanied with the usual symptoms of a menstrual period. There can also be no doubt but that the canal which was reached by the action of the tents was the upper portion of the vagina in its natural state, although much contracted, as is seen by dilatation of this part being only temporary, while in the portion which had been artificially opened it was permanent.

A somewhat similar case has been recorded by M. Amussat, of Paris, in the 'Gazette Médicale," Dec. 12, 1835, and quoted by Dr. Churchill of Dublin. A uterus distended with menstrual fluid could be detected per rectum at the upper part of the pelvis, but there was no trace of vagina, the parietes of the bladder and rectum being in close contact. M. Amussat commenced by depressing the mucous membrane of the vulva with the points of his fingers in the situation where the orifice of the vagina ought to have been, and, the membrane giving way, he gradually advanced in the cellular interspace between the urethra and rectum, guided by a sound in the former, and his finger in the latter, and retaining the ground he gained each day by a sponge tent, until at length he reached the tumour in the pelvis, which he first punctured with a trochar, and afterwards more largely opened with a bistoury, giving exit to a large quantity of dark jelly-like fluid. An additional quantity was discharged by a spontaneous opening into the rectum. The artificial os uteri was kept open for some time by a canula. The operation of course caused severe pain and excessive constitutional suffering; but, ultimately, owing to the care and skill of M. Amussat, the patient perfectly recovered, and at the time of writing the paper was menstruating regularly, enjoying good health, and about to call into play other uterine functions.

ASPHYXIA AND CONVULSIONS PRODUCED BY CHLOROFORM.

Communicated by JOHN BEALES, Esq., Halesworth, Suffolk.

Case 1.—A young lady, aged 27, who has for the last two or three years been the subject of severe neuralgic affection of the left side of the head and face, applied to me on the 11th inst. to extract one of her molar teeth of the upper jaw, of the same side, under the influence of chloroform. I accordingly moistened a sponge with one drachm of "Hooper's preparation," covering it over with a fold of lint, and at first held it for a short time at a little distance from the mouth and nostrils, and then applied it closely over them both for rather more than two minutes, without producing the desired effect. During this period the pupils of the eyes were alternately dilating and contracting, but the pulse was only slightly accelerated, and she expressed two or three times a desire that more chloroform should be used. I, therefore, finding there was no tendency to the soporific state, added from twenty to thirty drops more upon the sponge, which in two or three seconds produced a rigid state of the arms and legs, with slight convulsions of the abdominal muscles. The pupils of the eyes soon became dilated to their utmost extent, and one of the most alarming states of asphyxia followed, which continued for one minute at least; the eyelids were fixed widely apart, the mouth open, and the countenance was as pale as ashes, with a dark livid hue around the lips, indicating, altogether, the most deathlike appearance I ever witnessed. My partner, Mr. Garrard, who was present, immediately opened the window of the room, and then brought a bottle of the strong liq. ammon., which was the nearest restorative at hand, and held it to the nostrils, when, in a second or two, one deep inspiration took place, which was followed shortly by another. At this moment the face was instantaneously suffused with the brightest crimson, attended with the most rapid reaction of the pulse, and the patient apparently fell into a calm sleep. I now proceeded to extract her tooth, but before I could remove the instrument with the tooth from her mouth, the jaws became so firmly fixed upon it that it was impossible to remove it for two or three minutes, during which state the arms, legs, and the whole body were in one continued state of the most distorted convulsion. With the greatest difficulty we depressed the lower jaw, and removed the instrument and tooth. The convulsions (though not so violent) continuing for five or six minutes longer, when she became half conscious, and muttered—"More, more, or I cannot have my tooth out." She remained in this state, more or less, for another half hour, when she was attacked with the most excruciating pain at the top of the head, where there was much heat, and to which I applied linen rags dipped in ether, for about twenty minutes, which removed the heat and considerably abated the pain; she then reclined upon a couch for an hour and a half, and arose quite comfortable, and went home into the country. I called upon this patient the following day, and she only complained of great lassitude, as well as much soreness of her whole frame; she had had a pretty good night, and was in excellent spirits, and declared she would undergo the inhalation again if she required it. She described the feelings in her head in the first instance (under the effects of the inhalation) to the noise of a steam-packet just starting from her moorings, and afterwards, her sensations to have been most heavenly.

Case 2.—I also tried the chloroform on the 4th inst. upon a strong agricultural lad for onychia. I put one drachm of the same preparation upon a sponge, and applied it precisely with the same caution as in the preceding case, and in one minute the lad was in a deep sleep. I then divided the nail with a strong pair of scissors, and, during the time I was extracting the separated portion with the forceps, both legs were drawn up to the body by one violent convulsive action. Consciousness returned in another minute; he had felt no pain, nor was he aware that the nail was removed, but he complained of headache and sickness, and very soon vomited freely.

Case 3.—On the 10th inst., I witnessed an operation for stone upon an old man of seventy-seven, performed in the presence of several professional gentlemen, where the chloroform (in the quantity of one drachm and a half at least) was used upon a sponge, covered with a silk pocket handkerchief, and applied in a similar manner as in my own two cases. In two minutes the poor fellow was under its influence, but for five or six minutes, or even longer (although bound hands and feet), the convulsive action of his arms and legs was so violent, that it was with the utmost difficulty that two or three gentlemen, with myself, who were holding them, could keep him steady upon the table until the operation was finished. In this case, upon the return of consciousness, the patient was surprised to find the stone was extracted, and he declared he had not felt that he had been cut.

These are the only three cases in which I have witnessed the effects of the chloroform, and I must candidly confess that I have not been struck with its superiority over ether, under the influence of which, I have performed many of the principal operations in surgery, as well as having seen a great many capital operations in town, and in the country, by other surgeons, all of which have been unattended by any of the convulsive effects and alarming symptoms produced by the chloroform.

PUERPERAL CONVULSIONS AFTER DELIVERY.

Communicated by J. B. STEDMAN, Esq., Surgeon, Whittlesea, Isle of Ely.

Mrs. B., a healthy woman, of middle stature, aged thirty-two, mother of three children, was confined in the afternoon of the 24th of October of the present year; the labour being easy and of short duration: a midwife was in attendance. Had complained of headache and dizziness a day or two before her confinement, but obtained relief after that event. A recurrence took place twenty hours after delivery, accompanied with a wild

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MEDICAL TIMES

expression of countenance and hasty manner, which induced her friends to seek medical aid. Twenty-four hours after delivery I arrived at the patient's house; upon entering her bedroom I distinctly heard a peculiar hissing noise proceeding from the patient. She was in bed, being detained there by the efforts of four women. There were violent convulsive actions of both extremities, and the muscles of the face were under the same influence. The tongue was protruded from the mouth, and foam was abundant. The face and neck were swollen, with increased carotid action. The eyes were starting forwards, rolling about, and having a peculiar wildness in expression; the pupils dilated and uninfluenced by light; the head very hot; the state of the pulse could not be ascertained, owing to the violent action of the arms. In the absence of any hysterical symptoms, I diagnosed the case as one of puerperal convulsions after delivery. Twenty ounces of blood were immediately drawn in a full stream, an ipecacuanha emetic given, the hair was cut short, and cold assiduously kept to the head; sinapisms to both calves. In about an hour she became more quiet, the convulsions occurring only at intervals; the pulse was ascertained to be 110, of largish calibre; the pupils became contracted; the breathing was stertorous. Her state resembled the apoplectic. A large blister was applied to the nape; ten grains of calomel, six grains of camphor, and two drops of croton oil were given, which had the effect of producing some copious evacuations. After twelve hours' elapse, coma being still present, eighteen ounces more blood were withdrawn, and the frigid mixture substituted for cold water to the head. The inability to swallow prevented the administration of other medicines.

She continued in a comatose state until seven o'clock of the twenty-sixth day, sixty-three hours after delivery and thirty-eight after seizure, when death took place.

Puerperal convulsions after delivery are of very rare occurrence, their supervention taking place either before or during labour. The cause of the attack is various; but in this instance I attribute it to the peculiar type of disease then prevalent in the neighbourhood, which was clearly under a miasmatic influence, as both erysipelas and puerperal fever, those scourges of midwifery practice, had to a certain extent manifested themselves.

Since writing the above I have perused Dr. Churchill's valuable little work on "Midwifery Practice," and find a description of the above case under the head of Apoplectic Convulsions.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Dec. 7; M. Begin in the Chair.

Chloroform.—M. Charrière presented to the academy an instrument for the inhalation of chloroform: it consisted in a silk tube, supported by a spring wire, and terminated at one extremity by a receptacle for chloroform, at the other by a silver ring which could be readily adapted to the mouth. When closed, the instrument occupied a very small space, and could be conveniently carried in a snuff-box.

ACADEMY OF SCIENCES.

Meeting of Dec. 6; M. Brongniart in the Chair.

Hematology.—A paper on the composition of the blood in the general paralysis of the insane was read by M. Michéa. From the analysis of the blood of many patients, M. Michéa concluded that in general the globules were increased, and the fibrin diminished, in quantity: these changes in the composition of the circulating fluid would account for the frequency of cerebral congestion and its consequences, and were to be counteracted by a very moderate diet and occasional venesection.

CHLOROFORM.

Dislocation of the Shoulder.—A man, aged sixty-four, was admitted into hospital on Dec. 1 for a dislocation of the shoulder, which had taken place seven days before. M. Charrière's inhaler was used, and 3 ij. of chloroform were employed; after four minutes, insensibility was obtained, and, without any assistance, M. Velpeau reduced the arm, the muscles not offering any resistance. No sensation whatever was experienced by the patient, who stated that he had no dreams.

Onyxis.—The same surgeon, in two cases of onyxis, removed the nail without pain. In neither instance was the inhalation followed by headache or nausea.

Strangulated Hernia.—On Dec. 5, a woman, aged sixty-five years, insane, was admitted into M. Velpeau's wards, bearing in the right groin an inguinal hernia, strangulated since three days; reduction had been vainly attempted. 3 ij. of chloroform having been inhaled, complete insensibility was produced in one minute, and the operation was performed, and lasted seventeen minutes, during which the patient appeared to be in a state of repose; during the day vomiting returned, and several motions also took place: peritonitis, however, occurred, and the next morning, Dec. 6, the patient died. On dissection, effusion of stercoral matter was found to have produced violent peritonitis, and a minute perforation was detected in the part of the intestine which had been exposed to pressure.

In three other cases, two of removal of tumours, and one amputation of the leg, Prof. Velpeau again used the chloroform with the same success, and seemed to prefer the simple inhalation of the anæsthetic agent on a handkerchief, to any other mode of exhibition.

FACULTY OF MEDICINE.

LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

Second Part. Chapter I. (*continued*).

DYSPEPSIA.—GASTRALGIA.—VOMITING.

The manner in which the stomach performs its functions also furnishes diagnostic signs of disease. Dyspepsia, or disturbance of the digestive functions, results in general from some irregularity in the secretion of the gastric juice, and we must here make some physiological remarks which are closely connected with our subject. The history of dyspepsia is, besides, considerably enlightened by recent experimental researches upon the secretions of the stomach. Spallanzani, it is true, instituted inquiries into this matter, but the more recent researches of Beaumont, Bernard, and Bareswill have been still more fruitful, and have thrown a greater light upon the symptoms and nature of dyspepsia. Thus we know that, when the stomach is empty, its inner surface is covered with more or less of greyish mucus, which is never acid, but may be occasionally slightly alkaline when any substance is introduced into the cavity of the stomach. Experiments have further taught us that the mucous membrane becomes congested, and that a transparent and acid fluid is poured upon its surface. This is the gastric juice, the secretion of which may be modified by various circumstances. Thus, when a stimulus is introduced into the stomach, if it be gentle, the secretion of gastric juice is increased; but if the stimulus be powerful, the gastric juice altogether ceases to be excreted: it is replaced by mucus; digestion is suddenly arrested, and bile may even flow back through the pylorus. Great pain, or fear, or any sudden and violent emotion, produces the same effect, and stops the secretion. All these physiological facts, which experiments have positively demonstrated, are, in our opinion, most important to the subject now before us.

Dyspepsia shows itself in the first place in those maladies in which the stomach is primarily concerned: thus, inflammation of that viscus causes dyspepsia and pain; in bilious synocha, it is attended with nausea, and sometimes vomiting; and the introduction of light food and mucilaginous fluids into the stomach aggravates the symptoms, but they are often removed by a more stimulating diet and [illegible] form of dyspepsia is frequently due to the abuse of fat substances, or of vegetable diet, and to want of exercise; it is more commonly observed in damp than in dry seasons. We believe it to be produced by the arrest of the secretion of gastric juice and the increase of the mucous fluids of the stomach. Dyspepsia may be noticed with cancer of the stomach, but not always, and, when present, contrasts with the perfectly natural state of the tongue. In chronic gastritis, the functions of the stomach are also disturbed; but the disturbance, unlike that of bilious synocha, is increased by stimulating nutriment, relieved, on the contrary, by light food. In gastralgia, dyspepsia is also observed, and is often removed by the ingestion of food. Subjects of a nervous constitution, young women at the period of their first menstruation, are subject to a nervous form of dyspepsia, which is aggravated by every strong mental emotion, and which is very commonly observed in large cities: it is often accompanied by obstinate vomiting and intense epigastric pain, and the diagnosis is powerfully assisted by the preservation of appetite, the absence of thirst, and the natural appearance of the tongue. Local or general debility is also a very common cause of dyspepsia. Therefore, after repeated venesection, abundant hemorrhage, frequent seminal emissions, voluntary or not, in convalescence, &c., it may be expected to appear.

But it is not only when the stomach is affected in a primary manner that its functions are disturbed. That organ participates readily in any general neurosis: in hypochondriasis, for instance, it is so constant a symptom that many authors, taking the effect for the cause, have classed hypochondriasis amongst affections of the stomach. In hypochondriasis no real pain is experienced, but after meals a sense of fulness of the stomach, flatulency, and the continual eructation of inodorous gas are very habitually observed. In hysteria it is not so much dyspepsia as violent epigastric pain which is complained of. Certain alterations of the blood also interfere with the gastric functions: they are often disturbed in chlorosis, when the use of the cinchona bark proves a valuable adjunct to ferruginous preparations. Digestion is arrested by febrile excitement, and when hectic fever becomes continuous the same is also observed. In chronic diseases, in consequence of feverishness, debility, or some gastric complication, we generally, at one period or the other, meet with dyspepsia, the cause of which should be very carefully ascertained.

During health the operations of digestion are performed without causing any painful sensations. The various forms of dyspepsia all produce more or less uneasiness; but the sensibility of the stomach may be excited to such a degree as to occasion absolute pain, which may vary according to the circumstances attending its production, according to its nature, its intensity, or its seat. Thus, in acute gastritis the pain is generally insignificant, but its chief characters are to increase by pressure and by the ingestion of food. In bilious synocha no pain is experienced, but a sense of fulness and weight in the epigastric region. In cancer of the stomach, as in other internal cancers generally, we do not usually meet with the lancinating pains considered as pathognomonic of the disease, and which really exist in a marked manner in mammary cancers only. In some cases, however long before the full development of the disorganization, a sudden and excruciating pain occurs, which may be attributed to the propagation of the incipient disorder to some nervous filaments. In gastralgia a similar pain is sometimes observed; its intensity varies, but it may be sufficiently great to produce faintness, syncope, and even death. This extreme pain may coincide with preservation of the appetite and regular digestion; it is observed in many nervous subjects, is more common in the female than in the male sex, often accompanies abundant uterine discharges; it may result from general

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debility, gout, or erratic rheumatism, and sometimes yields to tonic medicines and invigorating diet.

The rejection of the contents of the stomach constitutes vomiting. Various substances may thus be expelled: food, drinks, medicines, foreign bodies, or blood, which may be furnished by the stomach itself; mucus, pus, or blood; the latter fluid acquires a dark colour if it be preserved in the stomach any length of time before expulsion, and in such cases the microscope shows that its globules have totally disappeared. The rejected matter may come from the intestines; hence fæcal matter, entozoa, or bile, having either spontaneously returned into the stomach or solicited by tartar-emetic, biliary calculi, or the contents of neighbouring tumours containing pus, cancerous matter, hydatids, &c., may also be voided into the stomach and rejected by the act of vomiting.

In diseases of the stomach, vomiting is a very frequent symptom; it is the characteristic of indigestion resulting from improper or too abundant food; acute gastritis cannot exist without producing vomiting of mucus, or of greenish bile occasionally streaked with blood. In bilious synocha, vomiting is not usual, but happens sometimes, and is arrested readily by the exhibition of tartar-emetic—a fact concisely expressed by Hippocrates in the aphorism, "Vomitus vomitu curatur." Some persons reject in the morning, with very slight effort, a more or less considerable quantity of a viscid, transparent fluid of extreme acidity; this symptom may last for a long time without disturbance of the digestive functions, but it may also be the premonitory sign of gastric cancer. In the latter disease, particularly when the orifices of the viscus are obstructed, vomiting is very frequent, recurring either a few hours after a meal, or at several days' interval, when the viscus has been gradually dilated to the extreme limits of its extensibility. Food is often found in the rejected matter, but, in proportion as the disease advances, vomiting of blood becomes a more frequent and a more important symptom. The hemorrhage from the stomach may be extremely abundant; its colour is generally dark, and has been compared to soot, coffee, chocolate, &c. Hematemesis is not, however, exclusively special to cancer: we find it in some forms of pyrexiæ, in yellow fever, for instance; in purpuræ and scurvy it may also be met with. In gastralgia, vomiting may also be the only symptom of disease.

In maladies not affecting the stomach in a primary manner, the same symptom is also noticed. Thus, during the fever of incubation of variola, which often presents so much analogy with the incipient stage of typhoid fever, it constitutes a most valuable diagnostic sign. We again meet with it in all cases of mechanical, or even dynamic, obstruction to the progress of the matter contained in the intestines: where the obstacle is situated in the small intestines, bile or mucus is usually rejected; but when the large intestine is occupied, fæcal matter is often vomited; in colica pictonum, when enteralgia alone is present, obstinate vomiting is not unusual, and we have seen it due to very small herniæ of the omentum or stomach, through an aperture of the linea alba, above the umbilicus. Acute hepatitis, unless complicated with gastritis, seldom is attended with vomiting; hydatids of the liver are often rejected in this manner through an ulceration of the stomach; and in obstructions of the ductus choledochus by calculi, besides the pain special to that form of colic, vomiting is also observed. Nephritis, and more particularly calculous nephritis, occasions the same symptom. As to the womb, its affections are frequently productive of vomiting; it is excessively common during the first months of pregnancy; and metritis, particularly when complicated by any degree of inflammation of the peritoneum, is attended with the same sign. It is also met with in an advanced stage of uterine cancer; and it is sometimes observed after simple cauterization of the os tincæ. With regard to diseases of the respiratory organs, we find vomiting in hooping-cough, after violent paroxysms of cough in consumption, and sometimes a part of the blood extravasated in pulmonary hemorrhage passes into the stomach, and is rejected by the contractions of that viscus. Maladies of the nervous centres are sometimes accompanied by vomiting; it is an early and characteristic symptom of meningitis, and M. Chomel has recorded a case of tubercles of the brain in which the convulsive action of the stomach had been incessant for a long time previously to the fatal termination of the malady. Vomiting is a common sign of the incipient stage of many acute disorders, doubtless because their invasion coincides frequently with the interruption of digestion; it is the special result of the exhibition of large doses of narcotic preparations and of digitalis, and it is observed in many nervous disturbances: thus, in facial neuralgia, in hemicrania, vertigo, syncope, sea and coach sickness, vomiting betrays the close connection which is established by the nervous system between the stomach and brain.

D. M'Carthy, D.M.P.

HOPITAL DE LA CHARITÉ.

CASE OF TETANUS, BY M. VELPEAU.—CHLOROFORM.

A man, aged 30, a mechanician, was, on Nov. 19, wounded by an engine, the last phalanx of the index of the right hand having been crushed. A simple dressing of lint and goulard water was used every day for a week, but on Nov. 24, stiffness of the neck and rigidity of the muscles of the jaw having occurred, the patient was admitted into hospital.

The extremity of the finger had mortified, and the red circle of elimination had already formed. The muscles of the posterior region of the neck were rigid, and preserved the head in a state of extension on the body. The masseter muscles were also contracted, and no efforts could permit of the separation of the jaws. The patient complained of no pain, and could speak, although with some difficulty; no convulsions were noticed. The pulse 90, heat natural, respiration slightly impeded by the rigidity of the respiratory muscles. Ether was inhaled, and, although after four minutes the patient began to feel drowsy, still this sensation disappeared, and he continued to inhale for half an hour without loss of consciousness. A very small quantity of chloroform was then used, without effect; and 3j. of laudanum were prescribed, in six lavemens, to be given, one every second hour. The next morning no amendment had been obtained, 3jss. of laudanum were again prescribed, to be employed in the same manner; and in the afternoon, at four o'clock, far from improving, the condition of the patient had, on the contrary, grown more alarming; the abdominal and femoral muscles had become rigid, and violent convulsions made their appearance; the pulse had risen to 104, the bowels were confined, the thirst considerable, and perspiration abundant. 3jss. of chloroform were then placed on a sponge, and applied to the patient's nose; after two minutes and a half his eyes closed, and a few more inspirations produced complete insensibility of the skin; during five minutes more the inhalation was continued, and all the muscles were instantly relaxed, the head returning to its natural position, and the jaws being now separated without the slightest effort. The pulse was not modified, and the pupils remained contracted, as they were previously to inhalation. They lasted twenty minutes, during which the patient had no dreams, but experienced a sense of happiness, which he could not account for. Shortly after waking, the contraction of the muscles of the jaws and neck returned; ten minutes afterwards, inhalation was resumed, and, an apparatus having been employed, insensibility and calm repose, with muscular relaxation, were again obtained; the muscles did not, however, lose their rigidity so completely as during the first experiment. Soon after waking, tetanic convulsions again made their appearance. One hour later, a third inhalation was resorted to, but with less complete results than previously. A fourth inhalation took place in the evening, and produced during three quarters of an hour sound repose. The next morning, Nov. 26, all the symptoms were aggrvated; the episthotonos was complete; the convulsions extremely violent, frequent, and occasioned by the most trifling causes; and finally, the patient expired at eleven o'clock A.M. On dissection, the brain and spinal chord were found in a perfectly natural condition; the kidneys, spleen, liver, and lungs, on the contrary, were gorged with blood, and several apoplectic nuclei were noticed in the posterior regions of the lungs.

D. M'Carthy, D.M.P.

Seat of Tubercle.—Dr. William Leeper, in "The Dublin Quarterly," remarks, the cellular tissue has generally been considered the peculiar site of this morbid product, but since, it has been shown that it has been deposited by way of secretion; the mucous tissue, if entering into the composition of the organ affected, is, in general, either the exclusive seat of this morbid product, or is far more strongly affected with it than any of the tissues of the same organ. The matter has been found in the air-vesicles and minute bronchial tubes by Lebert Nicolucci and Mr. Rainey; and, in more than one instance, in the pulmonary cells, when there could not be discovered any trace of the deposit in the cellular tissue of the lungs. Tubercular matter has been found secreted from the mucous lining of the large bronchial tubes, from that of the intestines, Fallopian tubes, and from that of the ureter, by Professor Henderson. In Cruveilhier's experiments, the globules of mercury injected into the lungs were found surrounded by tuberculous matter. This view of the anatomical site of this product, in the instance of the lungs, holds out the possibility, if not a well-grounded hope, of our being able to adopt such measures as may succeed in dislodging the matter from the air-cells, and so effect a cure in some cases; indeed, Sir James Clarke, impressed with this hope, recommends a peculiar treatment in the early stages to procure this end; but how far it may be found successful remains for future experience to disclose.

Case of Irregularity of the Femoral Artery; Fracture of the Femur from Necrosis; Hemorrhage; Death.—Mr. Henry Thomson, surgeon to the Tyrone Infirmary, relates the following case in "The Dublin Quarterly," as affording an example of an irregularity in the course of the femoral artery—rather a rare anatomical occurrence, and one which proved fatal to the patient. A youth, nine years of age, was admitted into the infirmary with a fracture of the right thigh immediately above the condyles. The lower third of the bone had been in a state of necrosis for six months previously, and several pieces of sequestra had been discharged from two openings. Through both of these openings the broken end of the diseased bone could now be very plainly felt: the lower fragment was drawn up behind the upper one, and projected in the form of a large tumour in the popliteal space: in front there was a hollow corresponding to the prominence behind. There was no great amount of hemorrhage; the appearance and temperature of the limb were natural, and the pulsation of the tibial arteries proved that the popliteal, which seemed endangered by the position of the lower fragment, was uninjured. Amputation was objected to by the friends of the patient, and the limb was placed on the double inclined plane, the bones having been placed in apposition as well as possible. He appeared to be going on favourably for about a month, when hemorrhage suddenly took place one evening to a very great extent. Faintness supervening, the bleeding ceased before assistance arrived. The blood was fluid, and had issued from the outer and posterior orifice, which, with the quantity lost, led to the suspicion that the popliteal, or some large artery, had been either perforated by some large spicula of bone, or opened by ulceration. Amputation was again proposed, but not allowed, and the treatment was, therefore, continued as before; and in a fortnight another bleeding took place, which was

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nearly fatal. And now there was observed a distinct diastolic pulsation, occupying the site of the fracture, commanded by pressure on the femoral artery in the groin, and unattended by any increase of swelling; a large artery, continuous with the femoral, could also be traced by its pulsation into the site of the fracture. From the debilitated state of the patient, nothing further was done: a third attack of hemorrhage occurred, from which he with difficulty recovered; and soon after a fourth, in which he died. On examining the limb, the vessel which had been traced along the inside of the thigh to the site of the fracture was found to be the trunk of the femoral artery, which ran in a direct line from the upper part of the thigh to the inner condyle, merely covered by the integuments and fascia, except in the middle third, where it was crossed by the sartorius. It sent a branch to the popliteal space, through the usual opening at the tendon of the adductor magnus; and, having arrived at the inner condyle, it took a sharp turn backward, and passed under the gracilis and inner hamstring tendons to the ham, where it divided as usual. The whole vessel appeared to be increased in size, and particularly where it passed over the site of the fracture: its coats here were remarkably soft and brittle, easily breaking down under the forceps. It was found adherant to the subjacent parts, when it passed over the broken bone; and, on slitting it open on the opposite side, a large opening, with a smooth, funnel-shaped margin, capable of admitting the extremity of the little finger, presented itself, leading into the cavity, which contained the broken ends of the bone, together with several pieces of sharp-pointed sequestra. This cavity communicated with the external openings. There was no attempt at union in the broken extremities of the bone. The fracture had taken place at the junction between the shaft and the epiphysis.

Pedunculated Tumours on the Mucous Membrane of the Bladder of a Cow.—In "The Veterinary Record" a case is related of a cow which had been ill for some days with symptoms of the prevailing epizootic in a marked degree. The head was protruded; the respirations laboured, and accompanied with a grunting noise; and the pulse varied from 85 to 90 in the minute. On ascultating the chest there was an absence of sound in the left lung, it having become consolidated. In the right lung the respiratory murmur was very loud, and resembled the distant rolling of carriage wheels; there was also, occasionally, a rushing sound, with crepitus. The diagnosis being unfavourable, the animal was ordered to be slaughtered. Just as she was being led away she was observed to strain violently, and to make many painful efforts to urinate, and which she ultimately effected with great difficulty; but the quantity of urine voided was inconsiderable, and of a dirty-brown colour. At the *post-mortem* examination, on laying open the bladder, a number of pedunculated tumours were found attached to its lining membrane. There was one, however, which had become detached, and this was floating in about a quart of brown urinous fluid, similar to that which had been passed previously to her death. When cut into, this detached tumour was found to be soft and fungoidal, and from this it was presumed to be a fungoid polypus.

Rheumatism of the Diaphragm.—This, says Dr. Mehliss, when occurring during the course of acute muscular rheumatism, is often extremely painful. It is, however, more frequent as a mild, independent affection in males of a nervous, but more particularly in females of a hysterical, habit. It is most common in wet seasons, especially towards the latter end of autumn, when its occurrence is sometimes epidemic. It infests ill-ventilated, underground tenements, and especially the low, damp dwellings of the poor. It consists in a dull pain, extending from the ensiform cartilage and the inferior extremity of the sternum to the spine. A somewhat deep inspiration sensibly increases the pain, which, though never very acute, occasions much distress, as denoted principally by dejected spirits and a marked expression of anxiety depicted in the countenance. The tongue is generally clean, but of a bluish cast; the appetite is not deficient, but even a moderate meal invariably occasions several hours of increased suffering. The bowels are sometimes obstinately costive; at other times tolerably regular in their action, which latter is, however, attended with great augmentation of the pain. The complaint, if not interfered with, will persist for weeks, if not months, and then gradually subsides; in which case, however, there remains a great liability to its frequent recurrence. The heart's action is, for the most part, turbulent, insomuch that cases have been repeatedly seen which have been mistaken for organic disease of the heart. In the majority of these cases it is requisite to confine the patient for some days to bed, and to cause a succession of mustard poultices to be applied at intervals to the epigastrium and back alternately. Warm diluent drinks, with occasional doses of Dover's powder and enemata of warm water—purgatives being here decidedly injurious—have generally sufficed to effect a tolerably speedy cure. It is necessary to restrain the patient both as regards the quantity and quality of the food. Sometimes the urine is quite clear, often it deposits lithate of ammonia.

HOPITAL DES CLINIQUES.

CASE OF DIFFICULT PARTURITION DEPENDENT ON AN ORGANIC ALTERATION OF THE NECK OF THE UTERUS. TREATMENT BY DIVISION OF THE NECK.

A young woman, twenty-one years of age, was admitted into this hospital on the 31st of October last, at eight o'clock in the morning. She made the following statement in reference to herself:—Her health had always been very good. She first menstruated at the age of fifteen, since which time she has been regular, the period lasting four or five days, and the flux being moderate in quantity. She says that she never experienced, during menstruation, neither pains in her back nor groins, till the last five years, when each epoch was marked by violent pains in the loins, and spasms in the abdomen resembling colic. These affections, however, continued the first day only, afterwards ceasing entirely. Her mother died in childbed.

During her pregnancy there was suppression of the catamenia. She saw these for the last time from the 1st to the 4th of February. Nothing particular occurred worthy of notice during gestation; never had any dislike to particular kinds of food, but her health remained perfect. The conformation of the patient is good.

On the 28th of October, at seven o'clock in the morning, the pains of labour first commenced, and half an hour afterwards the membranes broke. A midwife had charge of the patient for the first forty-eight hours, but, finding little progress was made, she determined to send her to La Clinique, where she was admitted, as before stated, at eight a.m.

At this time the uterine orifice was dilated somewhat larger than a centimètre; the neck was of an abnormal hardness, remained voluminous, and gave to the finger the sensation of a scirrhous tumour, existing entirely around the circumference. M. Cazeaux prescribed a bath, and an application of belladonna to the indurated part.

The patient had already taken two baths before she entered the hospital. The last bath and the frictions produced no effect, notwithstanding the frequency and violence of the pains. In the evening at half-past eight the dilatation had only increased to the size of two centimêtres. The exhaustion was extreme, and it became important to terminate the labour. M. Cazeaux then resolved to practise division of the neck; five incisions were made, for the most part very extensive. Scarcely was the operation finished when the head was engaged in the orifice. An hour afterwards it had passed, and from this time the labour proceeded without exhibiting anything more than what usually occurs in primiparous females. At ten o'clock the patient was delivered, the labour having lasted sixty-three hours. The infant, which was of the male sex, presented by the vertex; it was dead, and, according to its appearance, must have been so for some time; it weighed 2680 grammes.

As regards the mother, the secundines were quite normal. On the 5th of November, when visited, she had no fever; the mammæ were scarcely swollen, the lochia were moderate, and the patient had eaten two meals. Finally, there was no tenderness, neither over the abdomen nor uterus. The patient was afterwards examined with the toucher, when the uterine neck was found to be of the size of a small hen's egg, and seemed as if strangled at the base. It had a remarkable hardness, but was perfectly free from pain, and the incisions made by the surgeon could be easily distinguished. These had divided deeply, and one on the right had penetrated even to the base. The patient eventually quitted the hospital in a very satisfactory condition.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

CASE OF EXTENSIVE LACERATION OF THE LIVER, WITH RUPTURE OF THE GALL-BLADDER AND OTHER LESIONS, CAUSED BY EXTERNAL VIOLENCE; WITH REMARKS.

By Walter Fergus, M.D., House-surgeon to the Staffordshire General Infirmary.

W. F., aged seventeen, was brought to the Staffordshire General Infirmary on March 28, 1846, the wheel of a water-cart having passed over his abdomen four hours previously. The amount of shock sustained was trifling; he seemed to suffer very little, and there were no marks of external violence. The abdomen was only slightly tender on pressure; pulse 80. When seen early on the following morning, there were great pain and tenderness over the belly, and the pulse had become small and rapid. He was bled to fourteen ounces, and some calomel, with opium, was ordered to be taken at short intervals. He then vomited some bilious matter, and expressed himself as relieved. A turpentine enema, administered shortly afterwards, procured a free and healthy evacuation of the bowels. On the 30th, leeches were applied to the abdomen, after which the tenderness subsided, and the patient became in every respect convalescent, so that he got up and thought of returning home. On April 3, he was suddenly seized with extreme pain and tenderness over the whole belly, and all the symptoms of acute peritonitis rapidly supervened. On the 4th the abdomen became tumid from the presence, evidently, of fluid; and he died, without any remission of the symptoms, fifty hours after the acute attack commenced, and on the ninth day after the receipt of the injury. On examination of the body, a large quantity of bilious-looking fluid was found in the peritoneal cavity, in which were suspended some shreds of lymph; and the intestines were roughened. A laceration of the liver was discovered, extending in the direction taken by the broad ligament, quite through the substance of the organ, and to a depth of two inches and a half from the thin edge. Another laceration extended about two-thirds of the length of the convex surface in a transverse direction; but this was not deep, and was in a state advancing towards separation. The omentum was rolled up, and brittle. The gall-bladder was ruptured near its neck, and quite empty and contracted. The structure of the liver, in the neighbourhood of the laceration, presented, on section, a very red and dense appearance. Blood was extravasated around the right kidney, The other organs were healthy.

The author considered this case interesting from the absence of symptoms at an early period, evidencing the existence of such severe mischief as the *post mortem* appearances revealed. The first attack of inflammation was checked by the abstraction of blood and exhibition of calomel. The subsequent fatal attack of peritonitis he

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attributed to the bursting of the gall-bladder, and consequent extravasation of bile.

CASE OF MALIGNANT TUMOUR OF THE OS UTERI, EXCISED DURING LABOUR.

By J. M. Arnott, Surgeon to the Middlesex Hospital, and President of the Society.

The author first referred to cases of scirrhus, cancer, and other malignant growths of the uterus, in a state of pregnancy, proving the frequent fatality of this complication. He also adverted to the opinion maintained by some authors regarding the impropriety of excising the diseased parts under such circumstances, and considered the case he was about to narrate as illustrative of both the advisability and safety of the step in question. The subject of the disease (a lady aged thirty-eight) applied to the author in 1844, for an indurated enlargement of the anterior lip of the os uteri, which was rugged and granular near to the os itself: this was not tender, but bled under the examination. A consultation with Drs. Ferguson and Locock being held, it was agreed that the disease admitted of removal, as the neighbouring portion of the os uteri was healthy; but that, as the patient was at the time in the fifth month of pregnancy, it was desirable to defer operating until after the patient's confinement. Four months afterwards, the author was summoned to meet Dr. Locock, in consequence of labour being protracted by the presence of the morbid growth. This was still limited to the anterior lip and right side of the uterus, and had attained the size of a large green walnut: the tissue beyond and around appeared healthy. The diseased mass and contracted os uteri were forced down almost into view when a pain came on: hooks were fixed to the former, which was excised by a succession of strokes with curved scissors, and scarcely any blood was lost. Immediately afterwards, the os uteri expanded uniformly, and in a quarter of an hour a healthy child was born. The patient had a good recovery. On section the tumour presented a yellow colour and fibrous appearance. After an interval of some months, this patient was again the subject of frequent hemorrhage; and it was then discovered that the posterior lip and cervex uteri were the seat of a similar disease, which extended this time beyond reach. She lived until June, 1846, sixteen months after her confinement, when she died with all the symptoms of malignant disease of the womb. The author remarked that, in this instance, the lives of both mother and child were saved by the timely surgical interference; but he did not regard the case as illustrative of the usual condition met with in similar cases, which are rarely of a nature to admit of an operation under such favourable circumstances. He then narrated a case which occurred under his notice in the Middlesex Hospital, and in which the cancerous disease was much more extensive. After protracted labour, the os uteri was rent during a violent pain, and before the author arrived to relieve the tension by incisions. Two fœtuses were born at the sixth month, and the patient subsequently rallied. The author concludes by remarking, that, in cases similar to the last alluded to, incisions offer the first and best means of relief; but that, when the malignant growth is confined to a limited portion of the os uteri, the alternative of excision, as in the case first related, should be entertained.

LINNEAN SOCIETY OF LONDON.—Dec. 7, 1847.

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

Edward Forster, Esq., Vice-President, in the chair.

Mr. Newport read a paper "On the Formation and Use of the Air-sacs in Insects." After taking a general view of the kinds of insects in which this structure of the respiratory organs exists, and showing that whenever it occurs it is always characteristic of the perfect state of an insect, he stated that it is never found in the young or larva condition, and never, even in the perfect state, in truly wingless or apterous insects. It is almost always present in winged insects, and to the greatest extent in the most active. The manner in which the wings are begun to be formed in the caterpillar, before its last change of skin, was shown to be by the rapid growth of some little branches of trachea, and folds of the new skin that is formed beneath the old one at the sides of the segments, and by the extension of these along the sides of the insect at the next change. It is during powerful respiratory efforts made by the insect in effecting this change that the trachea of the body begin to be dilated into the future air-sacs. The use of these air-sacs was supposed by Hunter to be to enable the insect to alter the specific gravity of its body at pleasure, and thus to diminish the amount of muscular exertion during flight: a view which Mr. Newport also adopted long ago, although the proofs of this, he remarked, have been only inferential from the anatomy of the structures. He then showed that a vesicular form of the organs of respiration exists in the whole of the air-breathing vertebrata, as well as in insects; consequently that the anatomy of the parts, although always a safe guide, does not in this instance afford sufficient proof of the function without the corroboration of experimental observation. When examined anatomically, the respiratory organs of winged insects seem to approach nearest to those of birds, both in being distributed throughout the body as well as in their function, as in both the air-vessels penetrate into every part of the skeleton as well as into the wings. The comparison with birds holds good equally between winged insects and birds of flight, and apterous insects and birds which are not accustomed to flight; in both of which the respiratory organs are less perfect and less extensively distributed. These comparative anatomical views, in regard to the function of the air-sacs, were confirmed by some experiments which were detailed, and which had been made on a living dung-beetle, that was found to increase its respiration very rapidly, and to have its body much enlarged, immediately before it expanded its wings for flight; thus increasing its bulk, but diminishing its specific gravity, and, consequently, lessening the amount of power required to sustain itself on the wing.

On the conclusion of this paper (for which thanks were voted to Mr. Newport) a communication was read from M. P. Edgeworth, Esq., F.L.S., detailing some of the results of his researches into the Botany of India: a communication which Dr. Hugh Falconer further dilated upon, mentioning in the course of his observations the extraordinary fact that Mr. Edgeworth, having chewed some of the leaves of one of the family Asclepiadeæ in order to test the existence of the acrid property said to reside in them, immediately lost the faculty of taste as regards the saccharine flavour, being sensible only of the acidity of jam, and appreciating sugar itself but as so much sand: a state of things which was not entirely removed for four-and-twenty hours, and a recurrence of which a repetition of the experiment, both by himself and Mr. Edgeworth, brought about. Dr. Falconer remarked that, under similar circumstances, a deprivation of the power to appreciate a particular colour had ensued, but he was unaware before of anything so affecting the organ of taste. The natives, however, it appeared, were cognizant of the existence of this property in the plant.

It will be gratifying to the profession to learn that his Majesty the King of Prussia has settled upon the widow of Dieffenbach an annuity of 3000 dollars. It is fair to the King to suppose that personal gratitude has in this instance had some share in leading to the exercise of the royal munificence, the celebrated surgeon having performed a very successful operation upon the Queen under circumstances of great peril.

Royal College of Surgeons.—Gentlemen admitted members on Friday, Dec. 10, viz.:—Messrs. T. L. Gray, H. Tisard, J. Levey, J. Adolphus, H. Lord, and E. F. Fussell.

THE MEDICAL TIMES.

SATURDAY, DECEMBER 18, 1847.

THE METROPOLITAN SANITARY COMMISSION AND THE UNION SURGEONS.

The union surgeons are considered fair game for persecution and injustice, by every public authority that can possibly find an excuse for coming into collision with their peculiar duties. Whenever facts must be gathered, and scientific opinions on important doubts ascertained, the union surgeons are generally appealed to, as the men who, by position and acquirements, are best fitted to afford the required information.

Although their functions do not connect them with the Government, the Government, nevertheless, seems to think it has some claim upon their services; hence every commission or committee that it appoints, demands, as a matter of course, that the hard-worked, badly paid, and soul-sickened union surgeon should give his time, his talents, his strength, and his knowledge, for the benefit of that rapacious vulture the "public good," under which specious pretence more wrong is inflicted upon union surgeons than upon any other class of society.

We have recently been astounded at the fact, that the Metropolitan Sanitary Commission has forwarded to the union medical officers in the metropolis a series of forms desiderating specific information extracted from records running through a long series of years, relating to cholera, typhus fever, &c., in the different localities in which their duties lie. It is true that the union officers need not answer these queries if they do not like; but it is an unjust thing on the part of part of the Government to place a medical officer in the invidious position of declining to give that information which his coadjutor may be prepared to afford, or, on the other hand, to perform very important services, without which the valuable labours of a great Government commission will be arrested, and to receive no remuneration for the time and mental application which the duties thus imposed upon him may require.

The system is a bad one: it is in every respect oppressive to the medical man, and inefficient for great public uses. There is not a man who has given the slightest attention to the subject that does not see that it must terminate. Differences of opinion upon particular points there may be, as there will always be; but the wrongs and the indignities, direct and indirect, which the union surgeons suffer, call aloud for an early amendment of the present iniquitous and degrading system.

We think that the circulars recently issued by the sanitary commissioners, and which form only a portion of a heap of unremunerated labour that has in various ways been cast upon union surgeons, demand the consideration of those gentlemen, with a view to a deliberate protest against such manifest injustice. A stand must be made somewhere against the growing tendency to throw onerous and important duties of various descriptions upon medical men without the acknowledgment of such services by a suitable remuneration. We believe the present to be an excellent opportunity for acquainting the proper authorities with the feelings of medical men upon this subject, and endeavouring to obtain some restitution of that justice which has year by year

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been gradually filched from them, until, as applied to the duties of union surgeons, the word has changed its meaning, and wrong and degradation, under the words market price, open competition, professional advantages, form a dishonouring substitute.

As long as we have the power we will contend against the oppressions which public authorities place upon the medical man, and we shall exert ourselves to direct the energies of the profession to the attainment of those rights and that justice of which, through a long series of years, they have been deprived, and have yet made but feeble efforts to recover.

SIR BENJAMIN BRODIE AT ST. STEPHEN'S—CRAMMING AND ITS CURE.

"Euryale, audendum dextrâ: mane ipsa vocat res.
Hâc iter est: tu, ne qua manus se attolere nobis
A tergo possit, custodi, et consule longè."
VIRG. *Æneid.*

In another part of our columns we have published a portion of the evidence of Sir Benjamin Brodie, Bart., sergeant-surgeon to her Majesty, ex-councillor and examiner of the Royal College of Surgeons of England. It affords another proof, if aught were wanting, of the necessity of general practitioners looking well to themselves, and of permitting no opportunity to pass unimproved which may conduce to the safety and progression of their order. It is evident that, with certain parties, they are not in good savour, and, if we may judge from the evidence given before the Parliamentary Registration Committee, they are a class of medical practitioners, the majority of whom are only fit to attend the unpolished inhabitants of rural districts. The surgical Ajax and Ulysses of Lincoln's-inn-fields have both pleaded before the supreme council of the empire, not as those renowned Greeks, in ancient days, contending in fierce opposition to each other for the armour of Achilles, but in friendly combination to enrich themselves at the expense of a certain order in the profession. The soft words of the one, and the hard expressions of the other, are intended to teach the selfsame things—that they and their college are within a hair's breadth of perfection, while the institutions of other parts of the empire, and practitioners of another order, are as far removed from them as any two opposite points of the compass.

In illustration of our statement we take the evidence of Sir B. Brodie to witness. At the very outset of his examination, he makes a marked distinction between the science of surgery and a surgical practitioner in ordinary, declaring that while the one has, within the last forty years, made great advances, the other has remained almost stationary, or, like the tortoise in the race, has waddled awkwardly and slowly onwards. The emphatic manner in which his opinion was stated will better appear by giving the question and answer as it stands in the evidence published by authority. After he had said that he had taken part, some way or other, in the medical education of young and "older" men, the inquiry was made, "Have you observed a progressive improvement, or otherwise, in the attainments of young men studying surgery?" This he does not, in the first instance, answer directly, but says, "I think *the science* much improved;" then adds, "and that the best-educated young men are better educated than they were then; I am not aware that there is much improvement in the great mass of the students." Here there is more meaning than may at first sight be discovered, and it will be, therefore, proper to endeavour to get at it: in doing this, we shall take his own evidence as the key, so that we may not be charged, with any shadow of justice, of picking a lock to obtain possession of the treasures.

When Sir Benjamin says that the science of surgery has advanced, he intends a compliment to the magnificent attainments of himself and brethren of the order of "pures." When he speaks of the better-educated young men, he refers to those who are candidates for the fellowship. While "the mass" of students are young men who fit themselves for the possession of that renowned document vended at Surgeon's Hall for the sum of twenty guineas, and which, according to his own showing, is not worth twenty pence as a testimony of professional attainments. Hector's piper has tuned his reed upon this note for some time past, and has brought about him a shoal of Tritons which in the end may prove more than a match for him. His professional lifeboat they swamped in 1845, and compelled him to perpetrate an act of *felo-de-se* on his own corporate existence. All that now remains to him is the prestige of rank which he may think inviolably secured by the patent for a baronetcy, and the appointment of sergeant-surgeon to the Queen.

In order to depreciate as much as possible the qualification of "the mass," he tells the gentlemen of the select committee that, while the medical authorities require of students more knowledge than formerly, they subject themselves to a process technically called "cramming," by which, to pursue the metaphor, they get their crops well filled with the knowledge requisite for passing an examination at Apothecaries' Hall. The craft of trade is here but poorly disguised by the worthy baronet of an opposition establishment. The profession of late years has pronounced a very unfavourable opinion upon it, while the Company has been lauded for having effected great improvements in the education and character of the practitioners of the healing art. This, Sir Benjamin, without doubt, did not forget, as he stood before gentlemen who were intimately connected with the aristocracy of the country, and he would, therefore, desire to obliterate the stigma which was branded on his college. Cramming, therefore, he would wish it to be understood, was principally confined to those who went up for the certificate; while the majority of candidates for the diploma were entirely guiltless of submitting to this reprehensible process. With all his attempts, however, to make the diploma as clean a piece of paper as ever issued from a liscensing body, he failed in accomplishing the desire of his heart; hence, he says, "to a certain extent it has extended to the examinations of the College of Surgeons. I suppose there can be no examination of any kind instituted any where, for which a certain number of young men will not be crammed; but it is so general as to the preparation for examination at Apothecaries' Hall, that a well-informed young man scarcely ventures to go up there to get a licence without being first crammed." This latter part of the answer rather puts us to a *non plus*, as we were led to suppose that none but those deficiently educated submitted to the process; but here we learn that "well-formed young men" dare not go up till they receive additional stuffing to that of the lecture-room.

We know not how it was in the days of Sir Benjamin's pupilage, but in our own, those who patronized "crammers" or "grinders" were those who had shallow pates and deep pockets—young men who sported away much of their time at the theatres, the tavern, or the ballroom, and who afterwards endeavoured to make up for the want of sound knowledge by the possession of superficial acquirements. That many students who go up to the Hall are crammed we admit, but the principal source of income to the crammers arises from those who are about to become candidates for membership of the College; and the unrecognised teachers can tell to a dead certainty who will be successful, and who rejected, of those under their superintendence. Had the surgical baronet belonged to the school of the ancient Greek philosopher, who rendered himself renowned for the magnificent funeral with which he honoured a favourite goose, but who taught his pupils to suspend their judgment and never speak decisively, we should not, at the present time, have been compelled to call in question the correctness or propriety of the statement referred to above. It is evident that some one must have "crammed" Sir Benjamin, prior to his examination, for it is a fact universally known in the profession, that many who, in early life, followed some less honourable calling than that of surgery, have gone up to Lincoln's Inn-fields with certificates procured in the proper places, and with knowledge forced in their heads at a high pressure, which latter commodity escaped there *ad libitum*, to the entire satisfaction of the court of examiners. The Taunton pastrycook is a striking example of this kind, for in the short space of thirteen months he completed his education; then "crammed" the College, and, as a reward for his abilities, finally received its diploma. This was purely a surgical speculation, as the illustrious candidate could not so far demean himself as to do penance in the Apothecaries' funking-room, or to submit the stores of his knowledge to be ransacked by the Black-friars inquisitors. Gentlemen of his class spurn a certificate, and bid defiance to all penal laws which are intended for the protection of apothecaries.

It is time that the mere teaching of words should give place to practical information; the remedy is obvious and easily employed—that of having the dead body before the candidates, upon which they may be examined. The baronet acknowledges that this would be a sure remedy for a crying evil. Then why not at once adopt it? "I approve very much," he says, "of actual dissection as a real test of knowledge and of sounder acquirements; but I am afraid it would be difficult under existing circumstances to make it general for the members, on account of the difficulty of procuring subjects." Indeed, Sir Benjamin, and is this the principal difficulty? Certainly not: it is the price which must be paid in order to procure them. Ulysses, in order to avoid the dangers of the Trojan war, feigning himself mad, ploughed the seashore; and the sergeant-surgeon, in order to secure a good income for the college examiners, pretends that there would be a difficulty in procuring subjects when only candidates for membership are examined, but none whatever when the fellowship is sought. The difficulty lies in the purse and not in the market. Pay a good price and the worshipful company of body-snatchess would be found humble and devoted servants of the College; or surely there are subjects in the different dissecting-rooms of those who are anatomical or surgical teachers connected with the College, which could be furnished for an exa-

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mination on some particular part, and then returned. The fact is, the College has no wish to raise the standard of medical education for *the mass* of students, and, while it pretends to condemn crammers, it is the principal patron of them. The Company may laugh to scorn the attempts of its neighbouring corporation to place the whole burden of defective medical education upon its back, for the profession has already passed a righteous verdict. The sentence has not yet been pronounced, but we trust that corporate superciliousness and double dealing will be punished by the establishment of a new college, in which the general practitioners shall exercise a legitimate influence in all matters concerning the welfare of the profession.

THE SCIENCE OF SURGERY AT THE GLOUCESTER INFIRMARY.

Sir Benjamin Brodie, in his evidence before the Medical Registration Committee, said that the science of surgery had made great progress within the last few years; and we have concluded that he wishes it to be understood through the instrumentality of members of the profession practising in connection with the public hospitals. At the Gloucester Infirmary, however, it appears that the science, instead of moving onward, is advancing backwards.

Our attention has been directed to the case of a patient admitted into that institution last August, in consequence of having received a compound dislocation of the ankle-joint by the overturning of an omnibus, in which he was proceeding to his own home. He was immediately conveyed to the infirmary, where he remained *ten weeks* with the tibia exposed, and the dislocation unreduced. His friends, beginning to feel dissatisfied, had him removed home, and in three days afterwards amputation was performed by Mr. Batten, of Coleford, and the patient has since recovered.

The facts of the case having become public by appearing in one of the local papers, an advertisement followed in the *Gloucester Journal*, signed by Mr. Charles Weaver, clerk to the weekly board, announcing that the said board had met in order to institute a searching examination into the circumstances attending the treatment of such a case. It arrived at the conclusion that the newspaper statement was extremely incorrect, the dislocation having been reduced immediately after the patient's admission into the hospital, and that every possible care and attention had been paid to him during the whole time that he remained there.

That the board should arrive at this opinion we are not at all surprised: official persons in charitable institutions being always afflicted with such a defective state of vision as generally to see nothing in the shape of imperfection in places under their inspection till the public has forcibly opened their eyes. To the Norwich hospital board the effluvium of dirty towels and sheets was as sweet-smelling incense, and the members blindly thrust their noses amongst the foul linen, declaring it clean, sweet, and fit for the use of any sick persons. The Messrs. Dalrymple, however, had keener scents and sharper eyes than the officials, and it has been only by active treatment that they have recovered the use of their organs and set about remedying the grievances which exist in the hospital.

The official declaration of the Gloucester board called forth a rejoinder from Mr. Batten, the surgeon, who says that he first visited the patient in the infirmary at the request of Mr. Henry Ridler, and with the sanction of the surgeon who attended the case. The patient then presented the following appearances:—

"Body extremely emaciated; countenance pale and anxious; left thigh drawn very much upwards and outwards, and the leg contracted upon the thigh, so as to approximate the heel to within about fifteen inches of the buttock. The leg was lying upon its outer aspect, with no other support than a pillow; and at the inner ankle was a large wound, through which a considerable portion of the end of the tibia was protruding. The bone was surrounded by a pool of matter, and a portion of it, about two or two inches and a half in length, and an inch or an inch and a half in breadth, appearing above the surface quite dry, without periosteum, and blackened by contact with the dressings. By slightly depressing the foot, nearly the whole of the articulating surface of the tibia was brought into view, entirely denuded of cartilage, and the projecting process overlapping (if I may use the term) the integuments of the inferior edge of the wound, which looked soddened by the matter, and as if it had been in that position for some length of time.

"The joint itself had all the appearances of being completely disorganized, which proved to be the case upon an examination after the removal of the limb. To say that 'the dislocation was reduced immediately after the patient's admission' is only aggravating the charge of bad management, for, if such had been the case, proper steps should have been taken to keep the bones in apposition, whereas, as far as I can learn, no mechanical appliance whatever had been used for that purpose for some weeks prior to my visit."

In corroboration of his statements he refers to Mr. Tuckwell, of Sidney, and Mr. J. Teague, of Blakeney, surgeons, who met in consultation upon the case, and assisted at the operation. Mr. Batten has also in his possession the offending extremity of the tibia, together with the other bones which enter into the formation of the ankle-joints, and he says that he shall be glad to submit them to the inspection of any surgeon.

It is but right, we should add, that in consequence of the charge being reiterated against the infirmary, the board again met, and again stated that nothing could be discovered to induce an alteration of the opinions before expressed, and a statement has been published by the surgical officers of the institution in which they say—

"The injury sustained by the soft parts over the inner ankle occasioned them to slough, and the bone became consequently exposed. Abscesses formed up the leg, nearly as high as the knee, and appropriate openings were made for the exit of the matter. For some time the constitutional powers indicated the probability of saving the limb, but at length, when that expectation could no longer be entertained, and the patient's general condition rendered it justifiable, amputation was strongly recommended, to which the patient did not consent, but subsequently left the infirmary without the concurrence or knowledge of the surgeon under whose care he was.

"With regard to mechanical means, such were employed as were applicable to the circumstances of the case; but towards its conclusion, the tender and ulcerated state of the soft parts about the ankle rendered the pressure of splints inadmissible; they were also unnecessary, as the dislocated bone was never displaced after its first reduction during the whole of the time the patient remained in the infirmary."

For the sake of the hospital, we would suggest a further and searching examination into the whole matter. It is due to the public and to the surgeons. The friends of the patient justly complain that neither they nor the three surgeons present at the amputation were called before the board. Mr. James Ridler, therefore, calls it a one-sided investigation, and says that, till a full investigation has taken place, he shall consider that his brother was improperly treated.

THE POOR-LAW GUARDIANS.

We hear, with considerable regret, that several boards of guardians are exhibiting a painful hostility to the objects and doings of the Poor-Law Convention.

To remonstrate against this ill feeling would, in these pages, be of little service; but we may yet avail ourselves of the occasion for registering the fact, that never was hostility more undeserved or ill timed. Union surgeons are at this moment doing no more than this—bringing before a competent tribunal the actual state of a system under which, as they contend, boards of guardians, no less than themselves, suffer. Investigation at this moment is the utmost limit of our aims. We want the truth, the whole truth, and nothing but the truth; and to stand between us and this great aim (in which, by the way, such large responsibilities are involved) is surely not so much to damage us as to place themselves in a false, a shameful, and an odious position.

It is some consolation that, in this unfortunate course of policy, there are no more respectable leaders or exponents than the very singular gentlemen composing the board of guardians of Chesterfield. There is about their conduct, as Mr. Spooner well shows, so prominent an amount of heartlessness and absurdity, that the more they display their literary illuminations, the better warned are others of the perilous coast on which, as unconscious beacons, they stand.

To the medical officers themselves not much either of encouragement or of caution is required. Events have already shown them that they have a conquering and successful cause; and that to be faithful to it, through temporary discouragement and difficulty, is the only condition necessary to a great, an early, and a full triumph—a triumph of importance to the profession, but of infinitely greater significance to the large body of our destitute sick.

We urge, then, by word, as we might by example (that of Holborn not forgotten), a warm and generous co-operation with the Convention of every union surgeon, and, indeed, of every member of the profession. The public voice is incontestably with us: we have the advocacy of every section of the popular press; a good cause sustains us and disarms real hostility; let us, then, individually be true to the favourable circumstances that have been made to surround us, and by no act of ours, least of all by timidity, forfeit the boon they so obviously offer us.

CHOLERA AND INFLUENZA.

From the accounts which we receive, there appears little doubt that the cholera will not be long before it visits our shores. Already it has reached Venice and Warsaw; and, though it has been occasionally said that the mortality produced by it is not so great as in 1832, yet in some parts of the Russian Government one in two of those attacked has actually perished.

It behoves the inhabitants of this country to make all possible preparation for the reception of so fearful a disease. While the scourge cannot be kept off from our island, its virulence may be

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much lessened. In order to accomplish this, it is imperative on individuals to pay especial attention to hygienic rules; and those who have been favoured by Providence with worldly possessions should come forward to the assistance of the poorer classes of society. The safety of the rich is closely connected with the welfare of the poor, for when a fatal epidemic breaks out amongst the latter, it is sure to extend its ravages to the former.

We are glad to find that the Government is beginning to use such means as are at its disposal to meet the impending calamity; and the Health of Towns Association is actively engaged in drawing public attention to those fearful sources of disease—the drains, sewers, stagnant ponds, overcharged burying-grounds, ill-ventilated and badly-lighted dwellings. The set time to favour the society is at hand, for the fear of the cholera will do more for the passing of a good measure of sanitary reform than the speeches of the most eloquent philanthropists.

But, while sanitary measures and attention to hygiene may do much to mitigate the virulence of the disease, they cannot now prevent its arrival. The peculiar state of the atmosphere, and its influence upon the constitution, tell but too plainly that it has much to do with the advance of the cholera. The influenza has spread over Europe, and has been felt with peculiar severity in this metropolis. High and low, rich and poor, young and old, have been attacked. It has almost emptied places of worship, has seriously interrupted the business of public offices, has closed many schools, and temporarily marred the happiness of the domestic circle.

The bills of mortality tell how fatal it has been. The autumnal weekly average of deaths in the metropolitan districts is 1046. In the week ending Saturday, Nov. 27, the total deaths were 1677, being 90 a day above the average. In the week ending Saturday, Dec. 4, the total number of deaths was 2454, or 200 a day above the average. During the last week, ending Dec. 11, the average increase was 1370. In the twenty-one days, therefore, ending Saturday last, there were 3408 more than usual. Such a mortality has not been known for many years, for the cholera, amongst us in 1832, did not prove so fatal, only 5275 extra deaths occurring during a period of about thirteen weeks; while, in the short space of three weeks, we have, from influenza principally, an excess of deaths above the average of 3408.

We are not of the number of those who would unduly excite the fears of the public, and we condemn all efforts of this kind made by others. We think that there may be attempts to get up cases before the cholera actually arrives, and already there have been flying reports that some persons have certainly died from this disease. This is not true, however, and we do hope that the public and the profession will act prudently before the scourge reaches our shores, and vigorously afterwards.

APOLOGIES.

We have pleasure in publishing the following very full apology, enunciated by T. Wakley, Esq., M.P., in the House of Commons, on Wednesday. We are assured by those who know the character of Mr. Jones Loyd, and the nature of the attack made on his probity, that the reparation did not come before it was necessary:—

"*Mr. Wakley moved as an amendment, that the name of Mr. Hume be left out, in order that the name of Mr. Muntz might be substituted. The hon. member added, I wish to take this opportunity, on the first occasion of again addressing the House, to express my great regret that I made a reference to a gentleman who is not a member of this House, which reference I sincerely feel that I was not justified in making:* (*Hear, hear.*) *I acknowledge that in making it I was guilty of an offence towards the House as well as towards the individual*—(*hear, hear*)—*I am sorry for it, and will not commit the same offence again.*"

To Dr. Dawson, who had been placed much in the same position, the following reparation was made by the same gentleman:—

"Apology.—We regret to find that an article appeared in our number of the 22nd ult., reflecting upon the character and professional reputation of Dr. Dawson, which, upon inquiry, we find to be unfounded. We, therefore, as an act of justice, repudiate the animadversions alluded to, and take an early opportunity of stating our belief that they were undeserved, and of expressing our regret that they were inserted in our pages.

"*Lancet*, Dec. 7."

Dr. Culverwell, the well-known author of "What to Eat, Drink, and Avoid," likewise had the honour, from the same source, of a similar *amende* not less plenary.

We notice these graceful symptoms of reparatory contrition with considerable satisfaction; and suggest that the hon. member cannot do better than dedicate the rest of his life to similar acts of atonement and penance. In that field of tardy piety there remains for him Herculean work, which would well reward—well justify—years of anxious toil.

THE LATE MR. LISTON AND THE STETHOSCOPE.

[FROM A CORRESPONDENT.]

In medicine, as in many other practical sciences, there is a *fashion* which cannot be combated, far less overcome, by reason; and nothing but the experience of society—an experience more or less prolonged—can possibly correct prejudices and effect a salutary change. He who would attempt to convince or to shake the faith of a disciple of Mesmer, of Hahnemann, or of Priessnitz, in the absurdities of their respective systems, would be grievously disappointed if he expected to change their opinions; and it is a fact which cannot be denied, that the most intellectual and the most distinguished members of the community are those very individuals who are the most frequent victims of the charlatan. It was not until Baron Dupotet, aided in his wicked purposes by some of our countrymen, was publicly exposed by the *confessions* of the very person whom he had reared and educated for his crafty and nefarious purposes—it was not until the notorious St. John Long had brought to an untimely grave some of his ill-fated patients, that the eyes of the public were opened to the fallacy of his pretensions; and we need never expect to hear of the death of mesmerism, of homœopathy, or of the "cold-water cure," until some flagrant examples of their pernicious effects happen to be brought to light in a court of law, or before some other public tribunal, and thus leave no doubt on the minds of the most incredulous that the whole of such systems is based on falsehood and deceit, and that the persons who practise them are impelled to do so purely for the base purpose of worldly gain.

These remarks are called forth at this time from the more than ordinary excitement which has been produced by certain circumstances attending the death of an eminent medical man, an error in opinion of no ordinary magnitude having been repeatedly given during the progress of the disease by no less than four *eminent* physicians, all professing to have the most perfect confidence, and more than common discriminating powers, in the use of the stethoscope, disregarding at the same time all those diagnostic means which are resorted to by those men who do not repose such unbounded confidence in, or trust alone to the physical signs which are afforded by auscultation. Perhaps there could not have happened a case to bring into contemptuous notoriety, and point out the fallacy of stethoscopic examination so strongly, as the lamentable result of that practice on the unfortunate Mr. Liston; for it cannot be denied that, had he been under the care of those who were acquainted with the real nature of his disease—had Sir Benjamin Brodie, who never hesitated to pronounce its aneurismal character, been consulted *months*, instead of *hours*, before the death of the unfortunate sufferer—a valuable and useful life, if not saved might have undoubtedly been prolonged, and his sufferings greatly mitigated.

The lamentable result of Mr. Liston's case, and the almost incredible mistake of his advisers, will, however, have the good effect of exposing to public criticism and animadversion the degrading system which has prevailed of late years in this country, of having recourse to frequent and unnecessary stethoscopic examinations: degrading we have designated that system, because *we know* that it is employed for no other purpose than to enable an opinion to be given, with a colouring of scientific accuracy, of the precise nature of the disease which cannot be easily contradicted, however erroneous, and of creating a most cruel and unjustifiable impression on the minds of patients.

The stethoscope is likewise made use of by another class of medical men, for whom some apology is justly due, as they hesitate not to declare that, whenever they do employ it, they do so absolutely in *self-defence*, and not from any diagnostic advantage they derive from it: for so important has the parade of a stethoscopic examination been considered in public estimation, that, in order to prevent the imputation of negligence when consulted about diseases of the chest, they are induced to make their patients submit to all the trickery of auscultation. It surely, therefore, is not unreasonable to entertain a confident hope that numerous members of the profession will now come forward and expose the many and serious errors which have arisen from the improper use of the stethoscope, and from the neglect of other and more important diagnostic means; and that they will no longer hesitate in declaring their opinions of the fallacies and unworthy motives for which a useful instrument has been too much employed. And with confidence we can assert, that there are many honourable and distinguished members of our profession who are perfectly aware of the serious evils that have arisen from the use of the stethoscope; but who, from the overwhelming tide of public opinion, or rather of *fashion*, and the well-known influence of quackery on the human mind, have not possessed the moral courage to expose and reprobate the injurious and disgraceful conduct of which we have so earnestly and gravely complained, and of which we will lose no future opportunity of bringing before the more enlightened and honourable portion of our profession.

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POST-MORTEM EXAMINATION OF THE BODY OF THE LATE ROBERT LISTON, ESQ., F.R.S.

In our last number we announced the death of this distinguished surgeon, which took place on Tuesday week. The cause of his death, which, previously to the autopsy, was involved in some obscurity, proved to be an aneurism close behind the left carotid artery, at the origin of the innominata. His last illness, which commenced in October, was marked by a cough, which ultimately became frequent and distressing, attended with expectoration, which was not only difficult but was attended with occasional dyspnœa. On the 4th of December, three days before his decease, the breathing became more difficult, deglutition was only accomplished by considerable effort, and the cough also was very troublesome. After the loss of about twenty ounces of blood by venesection, all the symptoms were relieved, and on taking a dose of muriate of morphia he rested calmly during the night. Up to the period of his death very little change occurred; his weakness, however, gradually increased, and, after a severe attack of dyspnœa, he died at half-past ten o'clock on the evening of the 7th.

Mr. Liston's disease may be really traced to a severe shock which he received upwards of two years ago on board his yacht, being knocked down by a part of the rigging which had fallen, throwing him violently on the deck; and so severe was the concussion that it was necessary to give him cordials to restore animation. From the date of this accident, those who knew him best declare that he never was the same man again in all respects, for, notwithstanding that he continued to take a great deal of walking exercise, yet it was observed that he avoided hilly ground. It was not, however, until last summer, when the elements of the serious disease of the chest, of which he has died, became too evident by his spitting up, as we last week mentioned, a large quantity of blood, estimated between thirty and forty ounces. From that time, besides the local symptoms caused by the aortic aneurism, he had frequent paroxysms of dyspnœa; but so mistaken were his eminent medical attendants on the true nature of his disease, that, up to the period of his death, the treatment which was adopted had solely for its object the relief of a spasmodic asthma; and so unhesitating were they in this opinion, that not only was he strongly advised by them to go to the Mediterranean to spend the winter, but he was allowed to pursue his usual habits of taking all kinds of strong exercise. It is humiliating to reflect that so valuable a life should not have been prolonged, from the most extraordinary error of gentlemen so generally confided in, for during the many months' illness of the unfortunate patient, it appears that he had repeatedly submitted to what, in this case at least, was the solemn pedantry of stethoscopic examinations by Drs. Forbes, Williams, Watson, and Latham; and it was only on the day previous to his death that he saw Sir Benjamin Brodie, who at once pronounced the disease to be aneurism: too late, alas! for Mr. Liston to derive any benefit from the services of this eminent professional brother.

Post-mortem Examination.—The lungs were found but slightly collapsed, congested throughout, but otherwise perfectly healthy; the pericardium contained about an ounce of transparent yellowish serum; the heart presented a slight atheromatous deposit in the mitral and aortic semilunar valves. On removing the subclavian vein and cellular tissue from the arch of the aorta, an aneurism as large as an orange, flattened from before backwards, was found pressing back the trachea; it arose from the upper part of the arch, close behind the left carotid artery, at the origin of the innominata, which seemed almost to commence from the aneurismal pouch; the communication with the aorta was by a circular opening, as large as a half-crown. On opening the trachea from behind, the mucous membrane was seen to be very dark and congested, and in its front part, where it was firmly connected to the tumour, there were three or four whitish prominences, as large as split peas, situated between the rings; on slitting up the pouch and removing the fibrinous laminæ, they were drawn from between the ring, leaving the latter quite bare, and the trachea perforated in three or four points; they were found to be portions of the clot, which half filled the sac of the aneurism.

COPY OF A LETTER TO THE BOARD OF GUARDIANS OF THE WALSALL UNION.

TO THE CHAIRMAN AND BOARD OF GUARDIANS OF WALSALL UNION.

GENTLEMEN,—You have known me as a public servant of the union for eight years past, and I am proud now to refer to many expressions of yours commendatory of my professional conduct during that time.

You also know that I am one of the medical officers of unions at present co-operating with others of our profession in an attempt to place the union salaries of medical officers upon a more equitable footing in regard to the services required by law from said officers, than they are or have been generally since 1837.

On these accounts you must see that I am one of those assailed in a slanderous and self-contradictory paper, put forth by the board of guardians of Chesterfield union, and circulated to other boards of guardians in England.

Were it not that the issuers of this paper might flatter themselves, in consequence of its being unnoticed, that either its statements, or what they call its reasons, were correct, I certainly should not have paid so poor a compliment to your self-esteem, intelligence, or honesty, as to think it requisite to trouble you with any observations upon this document.

But as it does contain charges which are unfounded, statements which are untrue, and reasoning as absurd and erroneous as the premises from which it is adduced, I feel it a duty to myself and professional brethren engaged in the movement alluded to, to point out its demerits.

"First," there is not any "combination of certain medical officers of unions" for any "compulsory" purpose whatever; but the "Convention of the Union of Medical Officers" have, on the contrary, entirely repudiated, and denied "*in limine*," and now repudiate any such unfair or illiberal construction. They have avowed their object, again and again, to be the showing from the records of the several unions of England, for some years past, that the system of affording medical relief to the poor was in many respects vicious, wasteful, and requiring speedy and prompt amendment; and that the amount of salary and method of remunerating the medical officers was disproportioned to the labour performed, and onerous responsibility incurred, by the medical contractor; and unsatisfactory alike to the medical officers themselves, and very generally to those guardians and rate-payers who have conscientiously taken the trouble to reflect maturely on the subject. And be it remembered that this course, on the part of the medical officers, involves, in fact, the taking the evidence of the boards of guardians themselves on the subject; and we did and do hope, that when we have made out our case, by such respectable testimony as is now collecting from the union abstract-books of England, we will have no great difficulty in convincing the Government and the poor-law commissioners that the plan of fixing the amount of medical salaries in England, upon a five years' average of the work done in each district or workhouse, is more economical, more honest, and likely to ensure a more efficient medical relief to the sick pauper, and place the medical officer in a more reputable situation as regards those boards, who (like these Chesterfield "gents") see nothing more to be desired than to "lot off" and "farm out" the bodily welfare of "their" poor to the most needy or least scrupulous doctor, if he will bid for them at the "lowest market price."

The reasons given by these worthies for having thus imputed evil motives to the Medical Convention, and for not wishing any change "at present," when divested of the meaningless farago of words in which they are dressed, are simply, "first":—"The medical men have no just grounds of complaint" (they must be 'just' if grounded at all), because they make contracts to perform a "specified work" for a stated sum, and then Hurst and Company feign astonishment that any one should trouble himself about so "ordinary a matter of business."

Now, I will not condescend to bandy assertions with these men—it would not be respectful to you or myself—but you shall judge of the nature of the "specified work" as well as of the impossibility of "specifying" the "work" (even for one week, let alone a quarter or a whole year) to be done by your medical contractor. The fact is taken from your own abstract-book, and, I doubt not, had these indignant and astonished guardians consulted the archived records of their union, they could have come nearer in their guess.

I hope it will not turn out that they have consulted their abstracts, and that they do know better, because, although I am sorry enough that thus broadly they should show their ignorance of the nature of their own business as guardians, and exhibit thus clearly their indifference to the arithmetical statistics of their own union books, yet I should be quite grieved were it to turn out that they have published errors, knowing them to be such.

Take the fact opposed to the Chesterfield "talk," and judge for yourselves how far the said "palaver" is to be depended upon. In the Walsall union the number of sick paupers of all ages and sexes was, for the year ending Lady-day,

1838	1463
1840	829!!
1843	3269!!!
1846	1800

Is not this "specifying" work with a vengeance? How would the contractor in 1840 calculate the probabilities of 1843? or, how could the guardians of 1843 judge of the proper amount of medical salary for 1846? It is impossible!!

The bare truth is, as averred by the Medical Convention, that neither medical man, guardian, commissioner, nor any one else, has, "at present," any data upon which a calculation to approximate the "specification of work" to be done can be based (Fie! for shame, Chesterfied, you should take care when you elect guardians); and, therefore, we "combine," if Chesterfield likes the term, not to levy a "compulsory salary" from the "boards of guardians," but to force upon their attention the simple conviction of their utter inadequacy to know what ought to be the fitting remuneration, and the amount of the labour done, unless some average over a series of years be taken as a sort of standard.

And we are to be bought at the "market price," forsooth!! (Oh, ye hucksters of Chesterfield! Are your intellects after the pattern of your steeple?) Well, we will admit the "market price" as the standard of our services, but no thanks to you for trying to "rig" the market for all that. Give us the market price, if you can settle that, but give us the "market privileges" also, viz., the "counterfeit pretensions"—the "unblushing garnish of lies"—the total disregard of any confidence, and the determination to take every advantage and overreach all, guardians, rate-payers, and paupers, to any extent short of *banco reginæ*, or a Chancery injunction, and then we shall stand on something like an equality of footing with they of Chesterfield, and a "bonny spat of wark" there will be. Under such a reign of terror, I would rather trust to the mercy of "hemp and faggot" than be a sick pauper in Chesterfield union.

They really think "it would be more reasonable for the medical practitioners to right themselves." Ah, the funny "buffers," they're joking surely, for what does their circular say? why, in effect, that they view with astonishment the present moderate movement of the "medical practitioners," not "to right themselves" (as they cunningly insinuate), but to show the true state of facts, and trust to the constituted authorities of the land for "righting" them, with the fullest confidence in their love of justice.

And again, "2ndly," as they say, "We are prepared to admit that the 'money (Oh, deity of the Chesterfielders!) payment' is clearly insufficient as a remuneration for their services"!!! Why, gentlemen, may I ask, do these good folks suppose that the Walsall and other guardians are manufactured of cast iron, or that, being of "mortal mould," Pro-

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vidence has denied them mortal intellect?—that they dare venture to send you a copy of a document, every object of which seems utterly prostrated by this admission, and think that such an absurd attack upon your intellects could pass undetected. No, truly! they dared not do that, it seems, for they try to cloak the insult to your understandings by another of their "reasons," and here it is. Because, forsooth, it is "proved" to these guardians "that there are some indirect advantages annexed to the office, which, in the estimation of the medical men" (not the estimation of the Chesterfield board of guardians. Oh no! the innocent dears, no secondary advantage suits them), "are of no inconsiderable amount." Pretty fools, therefore, their medical officers would be to complain.

Gentlemen, the "annexed advantages" are "indirect," indeed, so much so as never to have reached the "parish doctor" in England. But, perhaps, we may differ in opinion as to what is an advantage, and these "mare's-nest" finders may calculate that a preparation for a better state in the next world is one "indirect" advantage: seeing that mortification of the flesh, charity, and a constantly going about doing good (we are told) serve to that end, especially when combined with lowlyness of mind, humility, and a disposition to turn the other cheek to the smiter. Yes; it must be so! And some day or other we shall have the triumphant announcement from the Chesterfield guardians that some "poor doctor" has gone to heaven, "proved," by their admission that they had never paid him anything here for his good deeds, but had humbled him enough to make a saint of him at least. Or, perhaps, at Chesterfield, the indirect advantage annexed to the union doctor's "money payment" may be that, by submitting to have his services taken unrequited, he is keeping in favour with the "little great" of his district, who may have (as has been elsewhere done) given him a hint that, if he grumbled, they would "introduce another man"! Well-chosen phrase! I hope another gentleman could not have been got for such a purpose.

Reason 3rd denies the allegations of the Medical Convention as to the inefficiency of medical relief, because of the insufficient remuneration to the medical officers; and they call for proof. They have it! —by looking into their own hearts, if they are human beings. They have it again!—by reading their Bibles, where the ox who treadeth out the corn is forbid to be muzzled. Again!—in the practice of all the paid institutions of this land. Again!—in the admission on all hands that withholding a fair day's wage, is the surest way to lose a fair day's labour. And again!—in their own conviction that in the nature of things it must be so as long as doctors are men, and not angels. And, finally, I sincerely trust they will be amply furnished with proof of the truth of our allegations in the better order of things which will dawn out of the self-sacrificing endeavours making by certain medical men (sorry I am that I cannot say all) to procure for the poor and sick man that full, free, and proper medical assistance in his need which the law of just England gives him as unalienably as any acknowledged right of mortal man; and also for the labourer in the medical field that fair remuneration for his services which all honest men delight to give their labourers. "Lastly" is a compound of a truism and an error separated and put right in the preceding remarks.

And now, gentlemen, I should have taken leave of this subject by observing that, whilst repudiating the efforts of the medical officers, these good folks do not forget to pay themselves a left-handed compliment when they say, "We are of opinion," in "every case of neglect"!! or "wrong treatment"!!! which has come under our notice," &c. Why, they must be very "admirable Crichtons" to be able to criticise the practice of their surgeons. But it does not stop here. These guardians of the sick poor hereby admit that there has been "neglect"! and "wrong treatment"!! by the medical officers of Chesterfield union!!! because it has come under the notice of the Chesterfield board of guardians—at all events, of Mr. Hurst and Mr. Haslehurst. Now, I should like to know how were such cases (they say "every case;" then, many which came "under their notice") dealt with? Was the coroner asleep? Are his fees so low at Chesterfield that he, too, "to live," must be guilty of "neglect" and wrong "treatment" of the sick paupers? Were the poor bodies "quietly inearthed" with all their sins about them—sent unannealed to their long account? or were the poor-law commissioners duly appealed to, that the protective power of the law might be invoked? Were the neglectful or wrong-treating sent to the right-about with a proper admonition? or was the "market price" made to rule a little lower in consequence? These, perhaps, are the "Mysteries of Chesterfield" (Oh! spirit of Eugène Sue, what are you about?). But is it too late to have a proper inquiry made? Is this "neglect" and "wrong treatment" of the Chesterfield sick paupers, thus frankly admitted by their guardians, of "ancient account"? or are the cases which have come under their notice "modern instances"? Surely the poor-law commissioners might feel it to be their duty to inquire. At all events these are important questions, and Mr. Hurst and the Chesterfield guardians would do well to endeavour to rid themselves of the horrible imputations attaching to them, in consequence of their own admission that there have been cases of "neglect" and "wrong treatment" of the sick poor "which have come under their notice," and this they can, perhaps, do by giving the facts to the world.

Gentlemen, with every sentiment of respect for you, individually and collectively, I remain, your faithful servant, JNO. BURTON.

King-street, Walsall, Dec. 13.

MR. SPOONER ON THE CHESTERFIELD UNION.

[To the Editor of the Medical Times.]

SIR,—When I read the document addressed to the poor-law commissioners by the Chesterfield board of guardians, I at once divined the *animus* and the motives of the whole proceeding. You call it in your leading article "one of the most incomprehensible of psychological phenomena developed since the days of Don Quixote." Allow me to enlighten your editorial simplicity, and to afford you a clue to the whole enigma. In the thirteenth annual report of the poor-law commissioners (1847) you will find a tabular list of unions, their area, population, expense of medical relief, &c. &c. I have extracted from two of the tables thus published the following facts:—

	Area in Statute Acres.	Population, 1841.	Cost of Medical Relief.		
			£	s.	d.
Chesterfield	85,732	39,379	330	10	0
Dorchester.....	70,810	16,121	330	0	0
Blandford	66,590	13,508	321	5	0

It will here be seen that the Chesterfield board is one of the most parsimonious in the kingdom; its meanness is only equalled by its unblushing impudence. It pays its medical men about twopence a head on its gross population for paupers scattered over a circle whose diameter must be fifteen miles! I have appended my own union and its nearest neighbour merely by way of comparison. There is an old adage, that "the worst spoke in the wheel generally squeaks the first." The alarm of the Chesterfield board at the formation of the Poor-law Convention is exceedingly natural: it is very much of the same character as that of the swell mob when they anticipate the approach of the detective police. They endeavour to throw dust into the eyes of their pursuers by a few scraps of political economy. Mr. Buller will no doubt appreciate their valuable advice. "We cannot forbear noticing that, whenever a vacancy occurs, there is seldom any lack of duly-qualified candidates for the office, and often much pains taken to obtain it," the office "being simply of the nature of an agreement betwixt two parties, whereby the one undertakes to perform a specified work for a stated sum to be paid by the other." "The competition which exists reduces the standard of prices." These little aphorisms of political economy are well worthy the commissioners' consideration, coming as they do from that enlightened place, Chesterfield—"Et mutato nomine de re fabula narratur." Alas! Mr. Buller, the next thing I expect from the wonderful sagacity of the Adam Smiths of Chesterfield will be a proposition to Lord John Russell to advertise for the lowest tender for the office of chief commissioner. Perhaps some such sage plan with regard to the new bishoprics might save him the annoyance of any future Hampden controversy! I know nothing at all of Chesterfield: the only thing I have heard of the place is that the spire there is very crooked and out of the perpendicular; the board of guardians there appear to have a moral obliquity, and are quite as far from being upright in their dealings with their medical officers as they are shameless in their justification of their misconduct.

I am, Sir, your most obedient servant,

Blandford, Dec. 16. E. O. SPOONER.

COPY OF A LETTER ADDRESSED TO THE HONORARY SECRETARY OF THE POOR-LAW MEDICAL COMMITTEE, T. PIERS HEALEY, ESQ.

SIR,—I return the schedule, with the inserted facts; I trust they may promote your arduous but most meritorious undertaking.

Any suggestions as to rate or mode of poor-law medical payment I beg to defer, because, though of extreme moment, I view them subordinate to the still grander desideratum, diminution of poor-law medical duties and responsibilities. The latter object is effectible only by, to a large extent, divesting the poor-law surgeon of the formidable burden, victualling the poor! At present the parish doctor's hygienic fully equal, if not exceed, his remedial avocations. Reference is not intended to acute cases where the ordering food is subservient to, and purely a part of, the medical treatment, but to those legion cases which in their alpha and omega arise from and depend upon under-feeding or innutrition,

This proposition contains two divisions of cases:—

1. Cases of chronic "symptomatic" substarvation dating their commencement from palpable, protracted violation of hygiological conditions—of the laws which regulate what Müller terms the "vital stimulants."

Scrofula in all its appalling guises, imbecility, idiocy, phthisis, cancer, and other structural diseases, range under this group; and, wholly irrespecting their cause, doubtless the practitioner's legitimate province is here to see that proper food be supplied.

But class 2 remains. Its diseases may be aptly termed diseases of acute "idiopathic" substarvation; and these are the cases in which the medical practitioner's valuable time is most vexatiously, unjustifiably engrossed.

Emaciations, dyspepsies, multiform in complexion and symptom, unknown beyond the limits of pauperism; stomach-qualms, colic-pangs, wasting diarrhœas, spasms of the abdominal muscles, vitiation of the digestant secretions, form some items of the long list of ills ranging under this class, and whereby the luckless underfed pauper is made "by inchmeal a disease."

Folios might be penned on this crying defect of the poor-law, and tax upon its medical officers; details, however, were here misplaced; suffice it humbly to venture the hint that, until a "Government sanatorial scheme" shall secure periodical inspection of the immense pauper population as to the laws which regulate healthy life, as food, cleanliness, drainage, number of persons or families per dwelling, &c., the poor-law medical officer, whatever his salary, can scarcely hope satisfactorily to fulfil his duties.

The toiling peasantry, the labouring poor, form the basis of the civil pyramid; without the base, where were the apicial elements? *Verbum sap.*

I must conclude by stating that, being poor-law surgeon to an agricultural district, to such these observations more directly refer.

Believe me, Sir, your very obedient servant,

JOHN COVENTRY, F.R.C.S.,
District Surgeon Dunmow Union.

To Hon. Sec. of Poor-law Med. Committee.
Hatfield Broad Oak, Essex, Nov. 30.

THE SUCCESSFUL CÆSARIAN SECTION.—SUBSEQUENT PREGNANCY AND DEATH.

[To the Editor of the Medical Times.]

DEAR SIR,—In the *Medical Times*, vol. ii., p. 45, 46, there appears a report of a successful Cæsarian operation, performed by my friend, and now my partner, Mr. Goodman—successful for the mother, who completely recovered, and for the child, which lived to the age of seven months, and then died of pneumonia. The case, in the annals of obstetric surgery in this country, is almost unique, another only, which occurred in Birmingham, being to be found.

Reading, a short time ago, the remarks of Dr. Adam Clarke, a celebrated biblical commentator, upon the introduction of evil into this world, I observed with interest, as a notion quite new to myself, that he has it that the word translated "serpent," in the history of the transaction in the garden, might be more properly rendered "ourang-outang." Moreover, he hypothesizes that the woman had intercourse with the animal "de functio maritii." Be that as it may, we are sure the philoprogenitive propensity reigns powerful in erring humanity. Under its influence Mr. Goodman's patient became again pregnant, and on Thursday last aborted a fœtus, apparently of two months'

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gestation. She died on Saturday, the 12th instant. Yesterday we had a *post-mortem*, in the presence of Mr. Goodman, myself, and our pupils, Day, Eckroyd, and Turton, the particulars of which shall be given to you shortly, as an appendix to the former record of the case. Meanwhile I am anxious to see the report of the meeting of the Provincial Medical Association, at which, I am given to understand, a learned obstetric physician of some polemic notoriety made some observations which, if made, amount to nothing less than an arrogant assumption to himself of that which in every sense belongs to another.

I am, yours truly,

A. W. Closs.

Grosvenor-street, Manchester, Dec. 14.

NOTE ON CHLOROFORM.

[To the Editor of the Medical Times.]

Sir,—I cannot omit to guard those who may be induced to employ chloroform in midwifery, owing to Dr. Rigby's recital of the twofold advantages he attributes to it, against a hasty supposition that it will be found to accelerate labour.

I have caused ether to be inhaled (which is in effect the same) in natural as well as in instrumental delivery, and I am fully persuaded that it retards rather than promotes the expulsion of the fœtus; and when it is considered how greatly the uterine power is assisted by the voluntary muscles, and that they are rendered inert by the use of chloroform or ether, it is impossible to draw any other conclusion.

There is no doubt that much resistance is offered by the soft parts to the expulsion of the fœtal head; but in first deliveries much more impediment is found in the pelvic bones and rigidity of joints, as evidenced in the labours of those advanced in years; and, as pressure alone is able to cause these parts to yield, I do not see that much advantage can be gained by any little relaxation that may be imparted to the soft parts; at all events, the loss of voluntary expulsive power will delay, much more than this alleged removal of resistance will expedite, delivery.

In the case reported by Dr. Rigby, there is some difficulty in understanding how the opinions of those persons present with himself could support him in believing that the labour would have been prolonged until the evening, instead of being terminated at noon, if chloroform had not been employed, unless they were all medical men, and all had examined the patient: for Dr. Rigby's experience in the fallacy of the prognostications of women and nurses regarding the duration of labour would not allow him to put faith in them, and the presence of more medical men than himself at the labour of a private patient seems improbable.

It is to be feared that the unguarded commendation of ether and chloroform in midwifery will be productive of some fatal results. All the advantages and none of the disadvantages are mentioned by writers upon them; but those who employ them without previous experience of their effects will not, let them be assured, find their exhibition so successful as they have been led to suppose.

In thus prognosticating untoward results I am certain they will happen only to those easily overcome by persuasion. Amongst the higher classes a general disgust for the uses of either of these agents is manifesting itself, and, although occasionally one from among them may be fascinated with their promised effects, yet great numbers have already expressed, not only their abhorrence of the system, but feelings towards those who recklessly adopt it, far from complimentary.

I am, Sir, yours very faithfully,

G. T Gream.

42, Nutford-street, Mayfair, Dec. 14.

A COUNTRY INQUEST.

[To the Editor of the Medical Times.]

Sir,—Should the enclosed summary of a coroner's inquest, holden on Monday last at Exford, a remote parish in the county of Somerset, be suited to your pages, I beg you will make whatever use you please of the facts therein contained, relying upon your unwearied exertions in behalf of our profession.

The inquisition was instituted in consequence of the registrar of the district not being satisfied, from the facts he was enabled to elicit, as to the cause of death of Jane Balmond, of whose registry a certificate was applied for. The deceased was an interesting-looking girl, nearly seventeen years of age, and was living as domestic servant in the house of the Rev. Thomas Bealy, where she died at two a.m. on Tuesday, the 7th inst., under circumstances which the following evidence (noted at the time by myself) will show:—

Mrs. Beadon, a daughter of the Rev. T. Bealy, was first called, and deposed that deceased enjoyed good health, with the exception of a slight cold, up to the night before she died; that she had performed her work as usual on that day (Monday). On entering the servants'-hall about six p.m., she observed deceased looked very ill, and told her she had better go to bed. She sent for Mr. Veysey, a druggist of the place. Deceased had spoken to Mr. Veysey the day before, and he had given her a little medicine for her cold; he called about five p.m. on Monday, and left other medicine, which was not taken. Witness's attention was aroused by the extreme pallor of deceased, and not by any complaint on her part, for she appeared totally unconscious at that time of her being ill. Mr. Veysey came that night in compliance with the summons, and gave deceased brandy and water, with a few drops in it.

Mrs. Williams, a friend of the family, who had called to see Miss Bealy, who was seriously ill at the time, stated that she was called by the last witness to the hall to look at the deceased; she asked her if she was suffering any pain, ; deceased said she was poorly in her head, and all in a shiver; she took some tea, after which Mrs. Beadon told her to go to bed, saying she had better not take her powder directly upon the tea, and, as it was to throw her into a perspiration, she need not get up very early in the morning. Deceased went to bed, and said nothing about having any discharge. Mrs. Beadon told witness, soon after, that deceased had brought away blood: she went to see her; deceased said her head was easier, and that she wanted to sleep; she complained of pain in her back and legs; witness asked her where the blood came from, and she said from the bowels; considers the quantity of blood lost must have been several quarts before she left the house, between eleven and twelve o'clock.

Jane Browning, a nurse in attendance upon Miss Bealy, said that Mr. Veysey had not been consulted by the deceased before Sunday, the 6th, when he gave her two powders. Her mistress had advised her to speak to Mr. Abraham, a surgeon, of Dunster, who was in attendance upon her sister, but deceased declined, saying she would rather have something from Mr. Veysey. Witness gave her one of the powders on Sunday night, and the other at four a.m. on Monday morning, according to Mr. Veysey's direction; the bowels were relaxed before daylight. A powder and draught were left by Mr. Veysey on Monday evening, but were not taken. I helped deceased into bed on Monday evening; she wanted to come out soon after to go to the pot; she said she was having the use of her bowels; after she had got into bed again I discovered the pot was half full of blood, about two quarts. Mr. Veysey came about ten o'clock, felt deceased's pulse, &c., but gave her nothing in my presence. I saw deceased repeatedly at short intervals; she continued to bring away blood both in and out of bed; several quarts must have been lost; the blood was very dark and had a very bad odour; I think there was a large clot in the first potful; there was no vomiting.

Jane Court, an occasional nurse, who had come to sit up on the Monday night with Miss Bealy, corroborated the last evidence, and added that she was present when deceased died, at two a.m. on Tuesday; she was perfectly sensible to the last; she complained of pains in her head, back, and bowels; cannot tell from which passage the blood came; deceased said it was from the bowels.

A juror suggested that Mr. Veysey should be sworn, in order to ascertain what he had given the deceased, when Mr. C. C. Collyns, surgeon, of Dulverton, stated that he should take measures for the prosecution of Mr. Veysey for having assumed the duties of a medical man in this case without any licence, and requested the coroner would preserve the foregoing depositions to be used as evidence against him. The coroner addressed Mr. Veysey, and gave him the option of being sworn or not; he complied, however, with the wishes of the jurors, and deposed as follows:—

Humphrey Veysey: I live at Exford, and am a druggist; I called on Sunday evening, the 5th inst., to inquire for my niece (Mr. Bealy and Mr. Veysey are brothers-in-law). Deceased said she was still very ill, and added, "I am very poorly myself, could you please to give me something?" I asked how long she had been ill, and what she complained of? She said, "Several days; I have pain in my head, and feel very sleepy; I also suffer from pain and numbness in my legs; the bowels have not moved since Friday morning." I said I had an opening powder in my pocket. I left two powders for her one to be taken that night in anything thick, and the other in tea or warm water early next morning. The night powder consisted of calomel gr. iij., and the morning of jalap. ℈j. I called about five p.m. on Monday to inquire for deceased and my niece; I left a powder to be taken that night consisting of pulv. ipecac. co. gr. xx (am aware that twenty grains of Dover's powder contain two grains of opium), and a draught for the following morning consisting of liq. ammon. acet. ℥ss., vin. ipecac. mⁱⁿ. xx., sy. papav. alb. ℥j, aquæ ad ℥jss.; the strength of syrup of poppies varies. I was sent for to see deceased about eight p.m., and received a second message about ten, when I went and found her in bed in a bad state from loss of blood; the nurse told me what had happened, and showed me the blood which had come away; the pot was nearly half full, and nurse said she had emptied one previously nearly full. Deceased answered, on my inquiry, that her head was easier, and she wanted to sleep. I gave her a tablespoonful of brandy in water, with twenty drops of laudanum; nineteen drops contain about one grain of opium. I was informed that the blood came from the bowels, but think and, in fact, feel sure that it came from both passages; did not make any examination in order to ascertain. I supposed a bloodvessel had given way; gave the opium to calm her to sleep, in hopes that by sleep the bleeding vessels would become closed, and the hemorrhage stopped. The brandy and water was merely a vehicle. An hour after, the bleeding still continuing, I gave her ten drops more laudanum in port wine and water; I remained with deceased until she died, and did nothing else for her. I did not suggest that a medical man should be sent for, as I did not think so badly of the case; I wished, however, in my own mind, that a doctor had been present.

Mr. Collyns, surgeon, of Dulverton, and registrar for the district, was now sworn, and stated his reasons for not giving the certificate for the burial of deceased; he said that he had been censured by the Registrar-General for having returned in his register-book no less than four entries within a short period in this parish, with the word "unknown" under the heading "Cause of death;" these cases had been attended by no medical man, and the cause of death could not be ascertained. He thought it his duty to send the particulars of this case, as far as he could learn, to the coroner, and leave it to him to decide whether an inquiry should be instituted or not; his letter was read to the jury. Witness had examined the corpse, and found it to present that deadly pallor characteristic of persons who had sunk from hermorrhage; he had no doubt that the deceased died from hermorrhage, but whence that hermorrhage had proceeded, or how it was induced, it was impossible for him to say, without making a *post-mortem* examination.

The coroner read parts of the evidence, and asked the jury whether, from it, they thought that the deceased came to her end by fair means. He considered a *post-mortem* unnecessary, as the exact seat of the hermorrhage was of no consequence, provided they were satisfied that hermorrhage was the cause of death. At his suggestion they found the following verdict, "Died by the visitation of God, probably from hermorrhage from the bowels."

There are important points for comment in this inquiry, but, as I have no time to dilate upon them, I shall leave them for your perspicuous pen. I should think the Apothecaries' Company must prosecute Mr. Veysey.

I am, Sir, yours, &c.,

Bampton, Dec. 15. John B. Collyns.

The Cholera Act.—In answer to a question whether the Government had any intention of adopting measures similar to those adopted in 1832, under what was commonly called "the Cholera Act," Lord Morpeth stated that the act of 1832, for the prevention, as far as might be possible, of the cholera in England, was still in force; and that act would enable the Government, on the least alarm of the cholera being imminent in this country, to issue proclamations and constitute boards of health. It was now under special consideration whether the proclamations issued on the former occasion could be advantageously altered or modified in any respect, in case that calamity should again visit us.

The cholera is on the decline at Constantinople.

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EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Sir Benjamin Collins Brodie, Bart., F.R.S., Examined.)

PROFESSIONAL TITLES.—I am a member of the council of the College of Surgeons. I have been a member of the college about forty years, and once president. I have been a member of the council about fifteen. I have taken an active part in instructing young men about to enter the surgical profession. In some way or another, from the time when I first became a member of the college, I have taken a part in the medical education of young men, and older men too.

IMPROVEMENT IN EDUCATION.—I think the science of surgery is much improved, and that the best-educated young men are better educated than they were then; I am not aware that there is much improvement in the education of the great mass of the students. The most accomplished of the year now are more accomplished than those who had made the greatest proficiency when I first began instructing. Perhaps I had better explain what I mean rather more at length. With respect to the qualifications of the great mass of the young men in the medical profession, the constituted authorities require of them more knowledge than formerly; but they are in the habit, before the examination, at the Apothecaries' Hall especially, to resort to persons to cram them, with a view to enable them to pass their examinations; in this manner a great deal of time is wasted, and, therefore, I very much doubt whether the great mass of the medical students are, in consequence, really better educated than they were when I was young myself.

CRAMMING FOR EXAMINATIONS.—The system of cramming for examinations is not confined to the Apothecaries' Hall, but to a certain extent it has extended to the examinations of the College of Surgeons. I suppose there can be no examination of any kind instituted anywhere, for which a certain number of young men will not be crammed; but it is so general as to the preparation for examination at Apothecaries' Hall, that a well-informed young man scarcely ventures to go up there to get a licence without having been first crammed. Cramming merely teaches words, a sort of *memoria technica* being used for that purpose. But if actual dissection upon the dead body be the test, cramming is not available for such instruction.

EXAMINATIONS AT THE COLLEGE.—The examination before the College of Surgeons, since I first became a member, has been improved, and has been rendered more really a test of attainment. I think, when I ceased to be examiner two years or a year and a half ago, the examination was very much better than it was at the time I first became an examiner in the year 1834. I was first an examiner in the year 1834; and I continued to be an examiner till about a year and a half ago. I was an examiner in virtue of my office as sergeant-surgeon, and by the Queen's permission I resigned the office about a year and a half ago.

THE NEW CHARTER OF THE COLLEGE.—The new charter was granted to the College of Surgeons I believe in 1843 or in 1844. I think that the new charter is a very great improvement on the old charter; that it is more liberal in its spirit, and tends to the establishment of a superior order of practitioners. At the same time, I think that the new charter has not yet produced all the good that it is calculated to produce, because the system of election of the council by the fellows hitherto exists only in a very partial degree, in consequence of the original members of the council who existed at the time of the charter being allowed to retain their office for life. The governing body of the council under the old charter were self-elected; prospectively it will no longer be so.

COLLEGE EXAMINERS.—The examiners were for life under the old charter, and I doubt very much whether the council had the power of getting rid of them; at any rate the power was never exercised. When they became old, and their skill had diminished, or from any other cause, it became desirable to remove them; but I do not believe that there was any power of removal; if there was, the council never ventured to exercise it. An examiner appointed under the new charter is appointed by the whole body of fellows; none, however, have yet been elected to the council except the members of the council. There is a power to appoint examiners from the whole body of fellows, consisting of 600; and the tenure of the office of examiner is, under the new charter, during the pleasure of the council.

EXAMINATION FOR THE FELLOWSHIP.—Under the new charter there is a higher and more difficult examination; but the still more important matter is this, that they are required to produce testimonials of previous general education, and they are required to spend five or six years in professional study in hospitals and schools. There is a limit in point of age: it is twenty-five instead of twenty-one. No young man can stand for a fellowship till he is twenty-five years of age. Actual dissection in the presence of the examiners forms part of the examination for the fellowship. In the examination of members we used to refer to preparations, the skeleton especially. Actual dissection did not form part of the examination of a member when I was examiner, and I believe it does not now. I approve very much of actual dissection as a real test of knowledge and of sounder acquirements; but I am afraid it would be difficult under existing circumstances to make it general for the members, on account of the difficulty of procuring subjects; but for fellowships it is the invariable test; there is no difficulty there, and I would wish it to remain a portion of the examination for the fellowship.

EXAMINATION FOR MEMBERS.—The examination for membership, as contradistinguished from that for the fellowship, has been more strict and more searching of late years than it was when I was first examiner. I think very much more so. Taking the two examinations as they now exist together, the examination for fellowship and the examination for membership, I would say that the standard of surgical knowledge and acquirements, as fixed by the College of Surgeons, has been elevated — elevated considerably. I think the examination is as good as examinations can be, all such human institutions being liable to imperfections: at the same time I am of opinion that no examination is a perfect test either of knowledge or talent. I do not think the examinations of the college can admit of much improvement, unless we could introduce an examination by dissection for the members, which would indeed be a great improvement; but which, as I said before, I fear is impracticable, from the difficulty of obtaining subjects.

BENEFITS OF THE NEW CHARTER.—The experience, though short, of the operation of the new charter, as exciting emulation among young surgeons for the fellowship, proves that it does great good among the higher class of young men. In many cases I have seen emulation among the young men to acquire fame by undergoing superior examination for the fellowship. I have attended several of the examinations for fellowships. There were four or five examinations before I resigned the examinership. I think the examinations have been very strict, and the requirements very considerable, but, notwithstanding that, many young men have passed them with the greatest credit. I have reason to know that a great many young men are now training and studying with a view of standing out for the fellowship, and even young men who are already engaged in practice; for the charter allows any member, though he has not had an extended term of education in the first instance, to present himself, after so many years of practice, for examination for the fellowship. Indeed I think the College of Surgeons is so constituted as to do great good to the public, and to advance the science of surgery.

MEDICAL BILLS.—My attention from time to time has been directed to the several legislative measures which have been introduced, though not passed, for the purpose of improving the law with respect to the practice of medicine and surgery in England. My attention has been called to a bill which is now under the consideration of the House of Commons; I have read it. The College of Surgeons has petitioned against that bill. I know the substance of that petition generally; I do not recollect that I have actually seen it; I was not present when it was read to the council. The are many objections in that petition set forth against that bill, and it is alleged that the tendency of that bill indirectly, if not directly, is to introduce a single faculty. It appeared to me to be so when I read that bill; the meaning is rather obscure in some places; but it certainly appeared to me that the tendency was to confound all grades of the profession together.

OBJECTS OF MEDICAL LEGISLATION.—An amalgamation of the whole profession into one mass, in my opinion, is not at all desirable. It appears to me that there are two objects to be kept in view in medical legislation: first, to supply the public with a sufficient number of well-informed practitioners for ordinary purposes; and secondly, to induce a certain number of persons of a superior education to enter the profession who are not compelled to look for a livelihood in very early life, and who will have time to study the profession as a science, and to promote the advancement of it as a science; and I do not think that the single-faculty system would operate well in the latter way. The first object it is possible that a single faculty might attain, or even promote. In my opinion, if that object were attained, and even if the standard generally of medical practitioners throughout the kingdom should be in some slight degree elevated by the introduction of a single faculty, I think the evil would more than counterbalance the good. But, in fact, the two things are quite compatible; you may very well attain at the same time the two objects of supplying the public with good practitioners for ordinary purposes, and those who will pursue the profession as a science.

A SINGLE FACULTY.—If my view be correct that since 1834 the examinations, both for membership and for fellowship at the College of Surgeons, have been progressively higher under the existing institution, that conjoint object, which I think so desirable, is secured to the public if you leave the college undisturbed. Allow me to say, in explanation, if you had a single faculty of very high attainments, as far as science is concerned, that single faculty might do very well, but that would not do for the public, and the result would be that it would force uneducated persons into practice. This was the mischief that occurred in former times, when the physicians assumed to be the only medical practitioners, and required of their body very high qualifications; persons who were to practise among the poor could not go to the expense of obtaining those qualifications, and that forced the apothecaries, who were then chemists, into practice; and if you were to bring up the whole of the profession to the highest standard, the inevitable result would be the forcing of chemists and druggists into practice, just in the same way as the chemists, who were then called apothecaries, were forced into practice formerly, and I apprehend that no legislation could prevent it. The effect of raising the general standard beyond a certain point would be to encourage empiricism and ignorance. Throughout England generally, and more especially in the rural districts, the poverty of the body of the people prevents the payment of more than a very small modicum of reward for medical skill. I think that for the mass of the profession the requirements as to education have been carried already to the highest standard—quite as high as the rewards of even successful practice can compensate in consideration of the time occupied and expense incurred in acquiring knowledge and skill. Therefore, in my opinion, even if the

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introduction of a single faculty had the effect of raising the profession generally above that which is at present the lowest point, you would sacrifice the advantage of attaining that higher class of practitioners which at present exists.

Apothecary Apprenticeship.—And I think that there would be a danger of forcing upon the people more ignorant practitioners than now generally practise in medicine throughout the country. There is one matter, however, in which the whole body of practitioners might be very safely improved without any additional labour, or without any additional expense in their education, and I see that that is provided for in the bill you alluded to just now; namely, by getting rid of the apothecaries' apprenticeship. The apothecaries' apprenticeship is a very great evil, preventing the greater part of the young men educated as general practitioners having anything like a literary education. That part of the act of 1815, commonly called the Apothecaries' Act, I would desire to see repealed; and if a good deal more were repealed, it would be a good thing.

Age for Commencing Practice.—To postpone the commencement of practice on the part of surgeons to as late an age as is consistent with the natural wish of young men to realize some profit from their studies, would be unsafe I think for the great mass of practitioners; it would make the education more expensive, and in that way prevent the public being sufficiently supplied; but I think, that for those who aspire to be hospital physicians and hospital surgeons, it is very desirable that the period of examination and of beginning practice should be postponed; and that is the effect of the new charter of the College of Surgeons. I approve of the period fixed for the fellowship, the age of twenty-five, and in fact, I imagine that very few young men who wish to be in the higher walks of surgery in London ever begin practice sooner than that. Not many surgeons have been members of English universities. Considering the peculiar duties of surgeons with reference to the feelings of young practitioners, it is desirable that they should begin hospital practice at rather an early age, but not at such a period as to prevent a good general education. It would be more difficult to combine such early attendance upon the hospitals with a university education, than in the case of physicians.

Education.—There is a little difference in the case of surgeons and physicians, with respect to education: the surgeon requires more anatomical study, and I find that young men who do not begin to study anatomy till they are three or four and twenty, for the most part, hardly study it at all; and I think in operative surgery there is something to be overcome which is better overcome at twenty than at twenty-three. Though there are difficulties, even among those who aspire to honours in the profession of surgery, in encouraging university education, we have, by the examination, as now fixed by the College of Surgeons, secured some test of literary attainment as well as professional attainment. When the new by-laws were made as to the examination of fellows, we required, for the first five years, that they should bring testimonials of a good general education; and we allow those who have a degree at an English university to come up upon five years' professional study, instead of six, which we require of others, that being correspondent with the rule which is observed at the inns of court with respect to barristers; but after the pear 1850, that is after the first five years, they will be required to bring up some more actual proof of a good general education than they are required to bring at present: I forget exactly what the terms are. I think that after the year 1850 the college contemplates having a board for the purpose of general examination in mathematics as well as literature, and a certain knowledge of the dead languages. I understand that this is the regulation as stated by Mr. Lawrence: that the candidaces are to produce a degree of master of arts from the university, or evidence of education equivalent to that which would be required for that degree.

(To be continued.)

Mortality in Edinburgh.—The bill of mortality of the Royal Infirmary for some time past exhibits a melancholy detail of the dreadful havoc which the calamity at present prevailing is making amongst its inmates. In the month of July the number of deaths was 138; in August, 104; in September, 105; in October, 129; and in November just expired, 170. In October last year there were only 54 deaths, and in November, 55. During the few days that had elapsed in December on Friday last, they had increased to the unprecedented number of 75, being about 11 daily.—*Caledonian Mercury.*

The Senate of Heidelberg has recently conferred the honorary degree of LL.D. upon our correspondent, Dr. Wright, of Birmingham, "in consideration of his contributions to the science of medicine, and more especially for his treatise 'On the Physiology and Pathology of Saliva, and on the Pathology of Expectoration, as applied to the Diagnosis and Treatment of Diseases of the Lungs.'"

MORTALITY IN THE METROPOLIS.

From the Registrar-General's return for the metropolitan districts it appears that the excessive rate of mortality which was announced in the previous report continued to prevail in the week ending Saturday last. The number of deaths is 2,416, showing an increase above the average of the season equal to 1,370, or 130 per cent.; whilst, compared with the greater number of the preceding week, it gives a difference of only 38. The following are the principal causes of mortality in three weeks:—

	Weeks ending			Weekly Average.
	Nov. 27.	Dec. 4.	Dec. 11.	
Zymotic diseases..	415	638	783	211
Diseases of respiratory organs ..	634	994	913	333
Typhus, &c.	91	136	140	38
Influenza.....	36	198	374	3
Pneumonia and Bronchitis	366	649	593	148
All causes	1,677	2,454	2,416	1,046

The decrease of mortality in the previous week, though numerically insignificant, encourages a belief that the force of the epidemic has attained its maximum, and, being checked by some improvement in the state of the atmosphere, is already on the decline. Probably influenza has done its worst for the present; certainly it has done more than enough to renew in the minds of the existing population the "acquaintance" which it established with our ancestors some centuries ago. From the above statement it will be observed that, while the total mortality is less, the deaths specially ascribed to influenza show a considerable increase on the former week. This circumstance it is difficult to explain, except on the supposition that, at first, medical men perceived in a multitude of cases only the aggravation of a chronic complaint, or the inflammatory symptoms of a common cold, till wide-spread disaster compelled them to recognise the presence of a new agent, and to assign the appropriate name.

Subjoined to the return are the following exceedingly important meteorological observations:

The most remarkable meteorological phenomenon of this year is the low reading of the barometer on the morning of Tuesday, December 7, which, as stated in the general remarks, was 28.381 in.; this reading is lower than any since that in the memorable storm of January 13, 1843, which was 28.096 in.; the lowest reading in the year 1844 was 28.525 in.; in 1845 was 28.669 in.; and in 1846 was 28.536 in. In 1847, December 1, the reading was high; and at midnight it was 30.237 in.; immediately after this time the reading began to decrease, and continued decreasing till the morning of the 5th day, at which time it was 29.205 in.; it having been at 30.074 in. at midnight on the 2d; at 29.885 in. at midnight on the 3d; and at 29.276 in. at midnight on the 4th. During the 5th day the reading increased a little till the evening, when it again began to decrease, and at 4h. 20m. A.M. on the morning of the 6th it decreased below 29 in., and continued to decrease throughout the day, and at midnight it was 28.291. On December 7th, at 2h. 35m. A.M., the minimum reading 28.381 in. took place, and it remained at this reading till 2h. 50m. A.M.; after this time the reading began to increase. This reading is 1.855 in. less than it was 5 days 1 hour previously. This change of reading is great; but in January, 1843, between the 13th, at 0h. 53m. P.M., and the 19th, at 9h. 20m. P.M., the reading increased from 28.096 in. to 30.437 in., or 2.341 in. in 5 days and 21 hours. (See the Greenwich Observations for 1843, page 266.)

In 1847, December 7, at 9h. P.M., the reading had increased to 29 in., and it continued to increase till the 8th, at 7h. P.M., at which time it was 29.634 in. It then began to decrease, and to the end of the week it has alternately increased and decreased about the mean reading as shown in the table.

On December 1st there were unusual changes of temperature of the air; the temperature during the preceding night was high, and generally above 50°; towards sunrise, on the sky becoming free from cloud, it began to decline, and continued doing so till very nearly noon, at which time it was 40°; at 1h. P.M. it had increased to 50°, and continued at nearly this point till after 4h. P.M.; it then began to decline, and at midnight it was as low as 38°, and after midnight it declined to 31°. On Tuesday the sky became cloudy, and the temperature increased from 40° at 7h. A.M. to 56° at midnight; it did not decline below 55° during the night. On the 3d the sky was clouded throughout the day, the temperature was high and nearly uniform, till after 8h. P.M., between which time and midnight it declined from 53° to 41°. On the 4th the temperature of the air increased till 1h. P.M., at which time it was 50°, and it continued very nearly at this point throughout the remainder of the day; after midnight it declined to 24°5. The highest point reached on the 5th was 47°, and this decreased to 37° by 11h. P.M.; after this time the temperature increased rapidly at night, and at 7h. A.M. on the 6th was 33°; and from this time it slowly declined during the day, and at midnight was 41°. The 7th day was cold, and there was but little change of temperature during the day. On the morning of the 8th the temperature was 32°, which increased to 41°5 by 1h. P.M., and decreased to 31°3 by 7h. P.M.; at 8h. P.M. it had increased a little; at 9h. P.M. it was 36°, and from this time it increased all the night, and at 1h. P.M. on the 9th it was 56°5, being 25°2 higher than it was 18h. previously. The period of time between the 9th, at 2h. P.M., and the 11th, at 2h. P.M., was remarkable both for the high temperature and its uniformity, the extremes between those times being 50° and 54°. After 1h. P.M. on the 11th the temperature declined from 51° to 38° by midnight.

From the preceding remarks it will be seen that the usual uniform rise and fall of temperature during the day has frequently been reversed. The reading of the barometer was high on the 1st and 2d, during the 3d it decreased about a quarter of an inch, and on the 4th it further decreased half an inch; on the 5th it was low all day, and on the 6th it was remarkably low, and it has continued rather low till the end of the 11th day.

The following shows the comparative meteorology for the first eleven days in December, since the year 1841:—

Period from Dec. 1 to Dec. 11, both days inclusive.	Years.					
	1842	1843	1844	1845	1846	1847
	deg.	deg.	deg.	deg.	deg.	deg.
Mean temperature of the air	42.3	44.7	30.7	42.1	31.8	47.3
Mean temperature of the dew point	41.2	42.7	26.6	37.8	31.6	43.7
	gr.	gr.	gr.	gr.	gr.	gr.
Mean amount of water in a cubic foot of air	3.3	3.4	2.0	2.9	2.8	3.5

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Period from Dec. 1 to Dec. 11, both days inclusive.	Excess in the year 1847 above that in the years					Mean excess.
	1842	1843	1844	1845	1846	
	deg.	deg.	deg.	deg.	deg.	deg.
Mean temperature of the air.....	5.0	2.6	16.6	5.2	12.5	8.4
Mean temperature of the dew point	2.5	1.0	17.1	5.9	12.1	7.5
Mean amount of water in a cubic foot of air	gr. 0.3	gr. 0.1	gr. 1.5	gr. 0.6	gr. 1.9	gr. 0.7

UNIVERSITY OF LONDON.

M.B. SECOND EXAMINATION.—1847. PASS EXAMINATION.

PHYSIOLOGY.

Examiner, Dr. Carpenter.

1. What are the principal components of the blood in vertebrated animals, their respective characters, properties, and uses in the economy, their chief diversities in the several classes of this sub-kingdom, and their proportions in the healthy human system?

2. State the essential nature of the respiratory process; the purpose which it answers in the economy; the causes which ordinarily render its continuance essential to life; the circumstances under which it may be temporarily suspended without injury to the system; and the changes which it normally produces in the blood and in the air respectively.

3. Describe the apparatus provided for the aëration of the blood in the following classes of animals:—echinodermata, bivalve mollusca, insects, fishes, reptiles, birds, and mammalia; and give an account of its operation in each case.

4. Describe the structure and actions of a gland, according to modern views; trace the gradual development of the liver through the principal series of invertebrated animals; describe the chief varieties presented by the structure of the kidney in the different classes of vertebrata; and give an account of the chief components of the urinary secretion, and of their respective sources.

5. Give an account of the structure of the nervous system in the centipede; compare its parts with those of vertebrata; describe its actions; and point out the bearing of the whole on the doctrines of reflex action.

6. Describe the general structure of the encephalon in each of the four classes of vertebrata; and state the physiological inferences which may be deduced from the comparison of these different types.

7. Upon what chemical process is the maintenance of animal heat chiefly dependent; how is this maintained in the bodies of man and of carnivorous and herbivorous animals respectively; and what are its relations to the presence of fat in the animal body?

8. Describe the apparatus by which the embryo obtains its nourishment from the contents of the ovum in the oviparous vertebrata; the provisions for the aëration of its blood; and the manner in which these are combined in the placenta of mammalia.

GENERAL PATHOLOGY, GENERAL THERAPEUTICS, AND HYGIENE.

CELSUS DE RE MEDICA.

Examiners, Dr. Billing and Dr. Tweedie.

1. Explain what is meant by transformation of tissues, and under what circumstances it may take place. Give a few examples in illustration.

2. Describe the physiological effects of cold on the living body. State the various purposes for which it is used as a therapeutic agent. Mention the forms in which it is employed in the treatment of diseases, with the special rules for its administration.

3. Describe the injurious effects that result from neglect of proper exercise. Sketch the different kinds of exercise—1, as a hygienic, and 2, as a curative, agent, with the special rules of application.

4. Translate the following passage into English:—

Faucibus subest stomachus; in quo plura longa vitia incidere consuerunt. Nam modò ingens calor, modò inflatio hunc, modò inflammatio, modò exulceratio afficit: interdùm pituita, interdùm bilis oritur; frequentissimumque ejus malum est, quo resolvitur: neque ullâ re magis aut afficitur, aut corpus afficit. Diversa autem ut vitia ejus, sic etiam remedia sunt. Ubi exæstuat, aceto cum rosâ extrinsecùs subindè fovendus est, imponendusque pulvis cum oleo, ete a cataplasmata quæ simul et reprimunt et emolliunt. Potui, nisi quid obstat, gelida aqua præstanda. Si inflatio est, prosunt admotæ cucurbitulæ; neque incidere cutem necesse est: prosunt sicca et calida fomenta, sed non vehementissima. Interponenda abstinentia est: utilis in jejuno potio est absinthii aut hyssopi aut rutæ. Exercitatio primò lènis, deindè major adhibenda est; maximèque quæ superiores partes moveat: quod genus in omnibus stomachi vitiis aptissimum est. Post exercitationem opus est unctione, frictione; balneo quoque nonnunquàm, sed rariùs; interdùm alvi ductione; cibis deindè calidis, neque inflantibus; eodemque modo calidis potionibus, primò aquæ pòst, ubi resedit inflatio, vini austeri.

SURGERY.

Examiners, Sir Stephen Hammick and Mr. Cæsar Hawkins.

1. What is Delirium Tremens Traumaticum? Under what circumstances is it most likely to occur? Describe the symptoms, and how they are to be distinguished from those of inflammation of the brain; and mention the proper treatment, under the mildest and most aggravated forms.

2. Describe the various dislocations of the femur at the hip-joint; and the signs of the injury, according to the several positions of the displaced bone; distinguishing between each form of dislocation and other accidents for which it may be mistaken; give the method of reduction in each case respectively, mentioning the general as well as the local measures necessary.

3. Describe the symptoms, causes, and treatment, both local and general, of different cases of senile gangrene of the toes or leg, according to the depth and extent, and to the acute or chronic nature of each case; or the age, habits, and state of the constitution of each individual.

MEDICINE.

Examiners, Dr. Billing and Dr. Tweedie.

1. Describe the anatomical characters of inflammation of the digestive mucous membrane.

2. Enumerate the causes under the influence of which hæmatemesis may arise. Explain the sources of the hemorrhage, and the principles of treatment.

3. Describe the intra-cranial lesions which give rise to paralysis.

4. Explain how serous effusion takes place in cardiac dropsy. What lesion of the heart most frequently induces it?

5. Give a definition of purpura. Describe its varieties, and the treatment applicable to each.

6. Sketch the diseases to which the windpipe (including the larynx) is liable, with an outline of their treatment.

MIDWIFERY.

Examiner, Dr. Rigby.

1. Describe the various sympathetic affections produced by pregnancy, their nature, and treatment.

2. Describe the causes of faulty uterine action, and the treatment.

3. Describe the symptoms, causes, and treatment of after-pains.

FORENSIC MEDICINE.

Examiners, Professor Brande, Dr. Pereira, and Dr. Rigby.

1. Bisulphuret of ammonium has been proposed as a test for hydrocyanic acid. Describe the mode of using it, its effects, and the nature of the chemical changes which ensue.

2. The earth of a grave in which a body has been interred is stated to contain arsenious acid, either free or in some combination. How would you proceed to determine these points?

3. In the case of a person poisoned by belladonna, how would you proceed to ascertain the presence of the active principle of this poison in the urine?

4. Describe the symptoms and treatment of poisoning by white lead.

5. Where a knot upon the cord is assigned as the cause of the child's death, how would you determine whether it had been formed before birth or wilfully tied afterwards?

6. State what you know of uterine auscultation in pregnancy.

GOSSIP OF THE WEEK.

A legacy of £25,000 has been left to the medical department of University College, London, by the late Dr. Holme, of Manchester. The *Manchester Guardian* of this week, speaking of the will of the deceased physician, says:—"The personalty is stated to be under £35,000. If to this amount we add the value of the realty—viz., the property in King-street, Manchester, which is probably worth £12,000; that at and near Kendal, £250 a year, at twenty years' purchase, gives £5000; his library will be worth little short of £6000; and an examination amongst his papers shows that he, too, like the late Rev. S. Smith, was a holder of Pennsylvanian bonds, to the extent, probably, of £1000; also of Columbian bonds, to the amount of 25,000 dols. (nearly £5000), and of other American bonds; but taking the whole of these bonds to be worth only £2000, that would give an aggregate amount of property, real and personal at the time of his decease, of about, in round numbers, £60,000. The aggregate amount of the legacies and bequests in money is £15,800; and deducting this from £35,000, and adding £6000 for the library, it would appear to leave a residue of about £25,000 for the medical department of University College.

Ten thousand persons are said to be laid up with the influenza at Lille, but no case has terminated fatally. At Toulouse there are, it is said, fifteen thousand persons in a population of fifty-five thousand suffering from that malady.

THE INFLUENZA.—For some weeks past this epidemy has prevailed more extensively than on any former occasion. The provincial newspapers report its presence in many localities, especially in the north. Letters from Edinburgh state that it is ravaging the east coast of Scotland, from Aberdeen to Arbroath and Dundee, and has also commenced in Edinburgh. In London and its neighbourhood it extensively prevails. Several hundred boys in St. Paul's and Christchurch Schools are on the sick list, and the Merchant Tailors' School has been prematurely closed for the Christmas holidays, in consequence of the illness of a large proportion of the pupils. The business of some of the public offices has also been impeded from the clerks being affected with the disorder, and in the Post-office alone 140 clerks were reported to be absent last week. In manufactories and wholesale houses much inconvenience has been felt from the same cause, and the deaths in Greenwich Hospital during the last fortnight have been at the rate of 20 per diem, out of a total of about 2,000 pensioners. It has proved everywhere extensively fatal, and the deaths in London last week were 60 per cent. above the average of the last five years. The disease appears to be equally prevalent and fatal on the Continent. Letters from Marseilles state that, out of a population of 160,000 souls, half at least are confined to bed by the influenza, which broke out in the town a fortnight since. Within the last few days, however, it has lost much of its intensity at Marseilles, but it is raging with violence at Perpignan, Montpellier, and Nismes. At Toulouse, by the last accounts, no less than 15,000 persons are labouring under the distemper. It is also very prevalent in Paris, where it has recalled the recollection of similar events before the arrival of the cholera in 1832.

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THE MIDDLESEX HOSPITAL.— On Monday a special general court of the governors of this charity was held in the board-room, Charles-street, Tottenham-court-road, to take into consideration the case of Mr. E. W. Tuson, one of the surgeons of the institution. Mr. B. B. Cabbell presided. There were also present—the Duke of Cambridge, Sir R. Inglis, M.P., Sir W. Stirling, Sir B. Smith, Sir E. Pearson, General Caulfield, Mr. B. Hawes, the Hon. Captain Maude, R.N., Captain Darley, the Hon. J. W. Percy, Mr. W. F. A. Delane, and nearly one hundred governors. The business of the day having been opened by the chairman, Mr. Sheddon, the secretary, read the statement of the weekly board of the circumstances the meeting were called upon to investigate, in which were set forth cases of complaint against Mr. Tuson for having received money for defraying the expenses of pupils, and for not having therewith paid the fees for the lectures in the hospital, whereby the pupils had been obliged to pay the money out of their own pockets a second time, and statements by Mr. Rowden and Mr. Corfe, co-lecturers with Mr. Tuson, complaining that he had not duly accounted to them for various fees. The statement having been read, the Hon. Captain Maude addressed the meeting, and moved "that the meeting confirm the resolution of the weekly board of the 30th of November, by which Mr. Tuson was suspended." Mr. C. Elliott seconded the resolution. Mr. Propert moved an amendment to the effect that, although Mr. Tuson had in his transactions with his private pupils been guilty of conduct in the highest degree censurable, yet as his duties during the years he had been attached to the hospital had been characterized by skill, assiduity, and great zeal, the meeting did not deem it expedient to force his resignation. Mr. Brewster seconded the amendment, after which several gentlemen addressed the meeting, and several questions were put to Mr. Tuson. The debate resulted in a resolution, put by Mr. Hawes, which was as follows:— "We, the undersigned, feel strongly the importance of waving every individual feeling for the security of the hospital, and we deem it right to disclaim further contention, and to place our resignation in the hands of the weekly board at the next meeting." This resolution, which was signed by all the surgeons of the establishment, was seconded, and carried by the meeting. The officers will offer themselves for re-election, and it will then be for the governors to say whether they will re-elect Mr. Tuson. His Royal Highness the Duke of Cambridge having said a few words expressive of the interest he felt for the good of the hospital, and a vote of thanks having been passed to the chairman, the meeting broke up.

WAR-OFFICE, Dec. 10.—20th Foot: Assist.-Surg. John Gillespie Wood, M.D., from the Staff, to be Surg., vice James Morison, who retires upon half-pay; Henry Higgins Jones, M.D., to be Assist.-Surg., vice Smith, appointed to the Staff.—Hospital-Staff: Assist.-Surg. G. Roche Smith, from the 99th Foot, to be Assist.-Surg. to the Forces, vice Wood, promoted in the 20th Foot.

NAVAL APPOINTMENTS.—Surgeons: Thomas H. Keown, to be Superintendent of the Mountstewart Elphinstone convict-ship; D. G. Miller, to the Blenheim; T. M. Jewell, to the Victory; J. W. Bowler, Superintendent to the John Calvin convict-ship; H. Morris, Superintendent to the Bangalore convict-ship; W. F. Carter, to the Inconstant; W. H. Brent, to the Pantaloon, vice Dr. Graham, deceased.—Assistant-surgeons: J. Simpson (b), to the Plover; W. Smith, M.D., to the Meander; H. W. Horsell, the Bonetta; W. M. Ogilvie, to the Inconstant.

OBITUARY.—On the 5th inst., Philip Elliot, Esq., M.D., late of Neath, Glamorganshire, aged 80.—On the 9th inst, at his residence, 9, Marlborough-place, Walworth-road, Richard Prior, Esq., surgeon, aged 48, of influenza.—On the 14th inst., at his residence, Hampstead, John Ranicar Park, Esq., M.D., aged 69.—Nov. 18, at Dundee, from fever, — Carruthers, Esq., M.D.—Nov. 20, aged 32, from fever, H. Ballen, Esq., medical officer to the Aldgate District of the East London Union.—On the 2nd inst., at Wellington, Somerset, Wm. Callard Pyne, Esq., surgeon, aged 56.—On the 6th inst., at Camden-town, Dr. Wigan, author of the work "On the Quality of Mind."—Lately, of influenza, M. Delmas, professor of midwifery in the University of Montpelier.

MORTALITY TABLE.

For the Week ending Saturday, Dec. 11, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	2416	1046
SPECIFIED CAUSES...	2414	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases	783	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	160	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	177	157
Diseases of the Lungs, and of the other Organs of Respiration	913	333
Diseases of the Heart and Blood-vessels.....	50	34
Diseases of the Stomach, Liver, and other organs of Digestion	114	74
Diseases of the Kidneys, &c.	17	9
Childbirth, Diseases of the Uterus, &c.	20	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	11	7
Diseases of the Skin, Cellular Tissue, &c.	—	2
Old Age	134	65
Violence, Privation, Cold, and Intemperance.....	35	29

TO CORRESPONDENTS.

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

"An Enemy to Quacks."—The handbill forwarded is an old puff of the "Silent Friend" company. The parties are a disgrace to the profession, and it is a pity the College of Surgeons has not the means of advancing the interests of the profession by expunging their names from the members' lists. The quacks have appeared so long in print that they are beyond shame.

"Scarificator" cuts deeply, but not scientifically. The matter is unsuited to our pages.

"A Three Years' Student at Bartholomew's" writes us that he is about to go up to the College for examination, and wishes to be informed what persons we would recommend to prepare him for the ordeal. If our correspondent refers to grinders we cannot recommend, as we never employed one. As to the "ordeal," our correspondent may rest assured that it is not a "fiery" one, but, with an amount of knowledge which an ordinary mind can obtain by common application, there is no danger of not obtaining the diploma.

"A Licentiate."—The Company is placed in a very critical position with regard to the prosecution of individuals practising as apothecaries without the licence. In consequence of its being understood that the society will institute no prosecution where a party is in possession of a medical qualification, numbers dispense with the certificate. They are in danger, however, from private informers, and it is probable that the society would aid in a case where they would not appear as prosecutors.

"Senex, Edinburgh."—If the correspondence is forwarded to us we shall be better able to judge whether the facts are suitable for publication; and, if so, whether prudence would dictate such a procedure. If the letters are sent to our office they shall receive immediate attention.

"A former Student of King's College."—Mr. Fergusson's portrait, which is an excellent likeness, was published by Mr. Stone, of the College of Surgeons.

"Mr. S. Benson."—We know nothing of the fracture apparatus to which reference is made; the parties have no standing in the professional world.

"F. F., M.D., Dublin."—We are glad to hear of the estimation in which Mr. Corfe's papers "On Semeiotics" are held. Our correspondent passes a eulogium on them by saying that they are not only interesting for the unaffected simplicity of style, but also for the valuable information they give in reference to the treatment of certain diseases.

"Surgeon-Dentist, Bristol."—The paper on the administration of Chloroform vapour we cannot promise to insert at present. It remains, therefore, at our office, according to request.

"Chirurgus, Manchester."—Mr. Lawrence's evidence was brought to a close in our last number.

"A Medical Student, Borough."—The Faculty of Physicians and Surgeons of Glasgow does not stand high as a licensing professional body. There are other corporations, however, of as easy virtue as the Glasgow faculty.

"Mr. Chas. Braddon, Upton-on-Severn."—The communication has been received; but, from press of matter, we have been unable to publish it; we hope to find room for it next week.

"Mr. J. Jones, Llanfair, Montgomery."—The article is used just in the same way as the ordinary sulphate, dissolved in water, with the addition of the necessary quantity of dilute acid.

"Philo-chlor."—The communication is unsuited for our pages.

The communication respecting the German Hospital at Dalston shall appear next week.

"An Ill-paid Medical Assistant," who writes us that he receives £30 per annum as his salary, for which he is obliged to dispense medicine, visit the poorer patients, and attend midwifery cases, wishes to be informed if a means can be adopted to benefit his useful but badly-paid class. We condole with our correspondent on his unfortunate condition. The labour is great, and the pay small. We cannot suggest a remedy. Perhaps, as "Assistant" suggests, a public meeting might be useful,

"W. P. D., County Down," in a letter to us, observes, "Medical reform must eventually take place, the profession 'with the aid of the press' having become alive to the injustice done them both in England and Ireland by the paltry remuneration granted for any medical situation under Government. Instance the pay for medical and surgical attendance, together with medicine, on the constabulary, sixpence per month per man. The appointment as medical officer to a party of police was offered me a short time back, which I declined, being actually a loser when holding a similar appointment in another county. The Government ought to be ashamed for offering, as also the physician for accepting, the miserable pittance. By inserting the above in your *Medical Times*, truly the best medical journal extant, you will oblige

"Your humble servant,

"County Down, Dec. 1." "W. P. D.

"Limericensis."—We objected to the insertion of the last letter in consequence of its not being authenticated. As that difficulty is now removed by our correspondent's name being forwarded, we will insert the principal points in the present communication. "Their assistant, who is the subject of our dispute, is a young man who spent some time, previous to his coming to Surgeons T. and J., with one Surgeon R., of Rotherham, who keeps a druggist's establishment, and who is, which is shameful to say, most liberal in initiating illiterate beings into the mysteries of the medical profession, one of which is at this moment carrying on a medical and surgical practice in a village in opposition to Mr. R., and is doing remarkably well; although, not having the slightest pretensions to a certificate of either College or Hall, he pleads on the same footing that Surgeons T. and J. have pleaded, namely, that he was in the employment of Mr. R. I ask them, is it because their assistant also spent an unlimited time in the house of the said Mr. R., that he is to be possessed and endowed with the requisite knowledge and qualification to act as a general visiting and dispensing assistant? Can they dare to contend for one single moment that he has been regularly indentured to the profession, or even attended one lecture appertaining to the profession? I answer positively, no, for I have his own words for it. Why, then, have they the presumption to allege that their assistant is duly qualified to practise the obstetric art, and that my charge was splenetic and false?"

"Mr. Robt. Hepburn, 8, Davies-street, Berkeley-square, in reference to a Hospital Surgeon's Letter on Chloroform and Dr. Simpson, writes, "It was with the deepest regret I perused in a late number the letter of 'An Hospital Surgeon,' in which he not only deprecates in strong language the use of either ether or chloroform, but has made a most unwarrantable, unjust, and most scurrilous attack on Professor Simpson. I am certain, Sir, that all who have perused the professor's pamphlet are aware that it is entirely free from what he denominates 'puff,' that there are no comments in it in the slightest degree prejudicial to other practitioners, and no attempt whatever to 'allure patients into his clutches;' on the contrary, it is a simple, straightforward, and plain statement of the cause which induced him to use the chloroform, its application and effects; the whole put forward in that subdued and sincere manner which is only the result of true genius."

Letters and communications have been received from A Medical Student, Borough; Chirurgus, Manchester; Surgeon-Dentist, Bristol; F. F., M.D., Dublin; Mr. S. Benson; A Former Student of King's College; Senex, Edinburgh; A Licentiate; A Three Years' Student at Bartholomew's; Scarificator; An Enemy to Quacks; Mr. Charles Braddon, Upton-on-Severn; Mr. J. Jones, Llanfair, Montgomery; Philo-Chlor; Limiricensis; W. P. D., County Down; An Ill-paid Medical Assistant; Mr. Robt. Hepburn, &c.

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

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

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No. 430. SUMMARY. Dec. 25.

ORIGINAL LECTURES—
Clinical Observations on some of the more frequent Diseases of Children, by W. H. WILLSHIRE, M.D. 189
DUMAS on Organic Chemistry—The Fabrication of Manures 190
Lectures on General Pathology, delivered to the Faculty of Medicine by Professor ANDRAL, reported by D. M'CARTHY, M.D. Paris 193
ORIGINAL CONTRIBUTIONS—
The Physiognomy of Diseases or Semeiotics in their Assimilative Characters, by G. CORFE, Esq. 194
Chloroform in Capital Operations, communicated by E. THOMAS, Esq. 195
Chloroform appearing to suspend Uterine Action, by ALEX. TYLER, M.D. 196
Westminster Medical Society 196
PROGRESS OF MEDICAL SCIENCE—
Academy of Medicine; Meeting of Dec. 14 197
Concours for the Chair of Clinical Surgery 197
LEADERS—
Poor-law Convention 197
"Operative" Surgery 197
Cholera and Quarantine 198
Coroners and Medical Witnesses—A Friend in Court 199
Free Hospital Quackery 200
Dr. Burrows 200
Early Struggles of Sanitary Reform 201
The Faculty of Physicians and Surgeons of Glasgow .. 201
German Hospital, Dalston 201
Evidence taken before the Select Committee on Medical Legislation 202
The Registration Bill 202
Control of the Secretary of State 202
Reciprocity of Privilege 202
Corporate Morality 202
The College of Physicians 203
Penal Clause of the Apothecaries' Act 203
Free Trade in Medicine 20
College Library and Museum 20
Central Criminal Court 204
The late Alderman Davis 206
The late William Dalrymple 206
GOSSIP OF THE WEEK 207
MORTALITY TABLE 208
TO CORRESPONDENTS 208

ORIGINAL LECTURES.

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

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

(Continued from p. 151.)

GENTLEMEN,—When speaking to you of the causes of diarrhœa, I mentioned that changes and modifications of the maternal milk were a source of great disorder to the child. Not only will you find much mischief accruing from this source to children at the breast, but you will discover that a constant plague-spot to them is the habit of many parents—even although they have plenty of good milk—of feeding the child upon some artificial food. The latter is generally composed of some vegetable article, like biscuit powder, tops and bottoms, baked flour, arrow-root, sago, semiluna, *tous les mois*, and some other rubbish called *pap*. Not only is a child made to swallow, before it ought, such material as it should not have, and, therefore, under the mildest circumstances of its administration, highly improper, but too often such aliment is given in a state which renders it doubly deleterious. Such materials allowed, to stand in a warm nursery, or in the close confined dwelling-rooms of the poor, have a strong tendency, from the mode in which they are made and preserved, to become acescent; and nothing is more liable to upset the digestive functions and induce diarrhœa than the reception of improper and acescent material into the stomach of the child. The evils resulting from the use of such food are also often further added to, by the frequent and nasty habit of the hired pap-giver of placing the spoon in her own mouth, and sucking the food before giving it to the child.

An infant may, perhaps, escape from any serious amount of disordered digestion during lactation, but upon the arrival of the weaning time the chances are then increased tenfold that it should not. Too rapid and entire a separation of it from the breast, too complete an alteration and change in the aliment, or the latter being of an improper kind, acescent, or too frequently administered, will bring about severe intestinal disorder. So frequent is diarrhœa at this period that you are aware one particular form is considered to be proper and common to it.

Those children who are dry-nursed, or brought up entirely by hand, suffer fearfully from the administration of improper food, and in them this is productive of entero-colitis, one of the most fatal of maladies which await them. Instead of such children being nourished upon an animal fluid, approximating as closely as is possible to that of their mother, of which they are deprived, and given to them in a method as nearly simulating that adopted by nature, they are brought or, rather, "dragged up" upon a thickened vegetable "pap," which is administered to them by spoon, and this pap liable to be constantly changed according as the recommendation of friends may suggest, or the advice of some "skillie wife" may offer. "It may be affirmed without dispute," says Bouchut, in his "Maladies des Nouveaux Nés," "that the mortality of infants brought up by hand is far beyond that of children reared by wet-nurses, and the greater number of such children die from the consequences of inflammation of the digestive passages."

In children who have passed through the weaning time, and in those of two years of age, improper diet still holds an important relation as a cause in the induction of diarrhœa.

The action of cold and damp weather on the external surface of children is another cause of diarrhœa, just as we see the same arise from like causes in adults. Children at the breast are not so liable, however, to this combination of actions as elder children are; but, even in the former, suddenly chilling the exposed surfaces will induce catarrhal irritation of the bowels, and increased secretion from their surface will result. Infants are sometimes according to the whim of the mother, clothed very warmly, placed in a warm confined cradle, crib, or bassinet near the fire, heavy clothing thrown over them, and there allowed to lie. Suddenly the child wakes and cries, the clothes are rapidly thrown off, the child taken out, removed to another part of the room, and put to the breast. Should the presence of a stranger or other circumstance cause interruption, it is often removed from the room altogether, and subjected to draughts and a lower degree of heat. These circumstances, too, will take place, not once, but many times a day; and it can be no wonder that diarrhœa should be produced. The well-known influence of cold on the infantile system is well shown by the researches of Villermè in France, and Quetelet in Belgium, which, contrary to those of Schübler of Stuttgardt, of Emerson of Philadelphia, and of Casper of Berlin, prove that the maximum mortality among infants occurs during winter: a conclusion "in accordance with physiological principles, owing to the low state of the calorific function at this period of life."(a) In other countries infantile mortality is highest in the hottest weather; and Dr. Casper believes the difference I have spoken of to arise from the bad custom prevailing in certain Catholic communities, and in those places where the rules of the *Code Napoleon* are strenuously enforced, of exposing the new-born infant to the rigour of the season, in obeying the orders, &c., for civil registration and the adoption of early baptism. "In other countries, where these practices are not adopted, the mortality of infancy is decidedly lower, because the child is withdrawn from the injurious effects of cold. The balance of mortality in other seasons, excepting the summer, differs but little from that of winter; the fact is, infants are very sensitive to extremes of temperature, and easily suffer from them. Hence, the summer is so fatal to infant life, for it is far less easy to protect a child against the heat of summer than against the severe cold of winter."—*Op. cit.*

It is during the middle and latter part of summer that diarrhœa is so frequent amongst children, and by which the rate of mortality amongst them is greatly increased. You know, of course, that, according to the season, so do we have a prevalence of particular diseases, and, with regard to some of them, it is very easy to reason upon the cause and effect. But with others it is not so, and I am unable to tell you why, all of a sudden, on some morning in July or August, more than half the children who are brought to the infirmary should be suffering from intestinal disease. They shall be brought to you from all parts and quarters—have been fed or brought up most variously, in fact, be placed under circumstances having no general relation save the air they breathe, and yet these infants and children shall be suddenly attacked with diarrhœa. I have noticed once or twice that, a few days before I had the *epidemic* diarrhœa to treat, there has been much rain. I think it not unlikely that, after the saturation of the earth, and the great quantity of vegetable refuse it has at this season upon its surface, or contains, with moisture, and the after action of the summer heat upon it, a kind of malarious principle is imparted to the atmosphere which readily affects the highly sensitive system of the child, and has some remarkable but certain relation to its digestive mucous surface. However, this is an assumption you may reject, perhaps, without much loss of truth, still I offer it you for consideration, the more because Dr. Baly in his late lectures, before the College of Physicians, on dysentery, remarked, "From these facts, as well as from the consideration of the whole character of the disease, I infer that dysentery is always produced by a poison introduced into the system from without, and that in most instances this poison is generated by the decomposition of matters contained in the soil." I am aware of the numerous arguments which could be brought against this view of the matter, but I think, if not *always*, *often* may dysentery so arise, and so may the more inflammatory diarrhœa of infants and children from a state of atmosphere having at least a close relation to that which we understand when we term it a malarious one, although it may not be exactly identical. I may state to you also, that between certain forms of dysentery and of the entero-colitis of children there are very close anatomical relations, as also that "so common is the union between remittent fever in all its forms and dysentery, and so evidently are both diseases excited by the same cause, that some writers, as Williams, Bancroft, &c., have believed dysentery to be always, or in the majority of instances, of malarious origin." So do we find that in the more adynamic varieties of the remittent fever of children the bowels are much disordered; the stools are very offensive, watery, greenish, pre-

(a) See the review of Casper's work in the forty-seventh number of "Dr. Forbes' Journal."

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ceded by much griping and flatulence, and frequently passed involuntarily; and in the chronic form "lientery" supervenes. Upon these points, however, I must refer you for further information to an able article in the last number of Forbes, and to Dr. Copland, on "Remittent Fever in Children."

The next cause of diarrhœa I have to mention, and a very frequent and important one it is too, is the travail of dentition. No one can doubt for a moment that the irritation dependent on the evolution of the first set of teeth may give rise to any of the forms of the intestinal disturbances we have already mentioned; but I question very much whether we do not go too far, in this country, in so constantly ascribing every form of diseased intestinal secretion during the travail to the effects of the latter alone. It is the habit with us to lay to the charge of the dental evolution all and every one of the ills which may happen to the child during its occurrence, whilst most of them are really but coincidental evils, whose origin lies elsewhere. From our peculiar notions of the matter has sprung that constant practice of depending upon the gum-lancet as our pilot down this portion of the stream of life, whilst in some other countries, where quite the opposite views are held, scarification of the gingival structures is but rarely performed. We were quite sufficiently impressed with the effects of certain local forms of irritation upon distant organs by sympathetic or reflex actions years ago, and of which our views upon dentition and our operations on the gums sufficiently proved. But we have been urged forward so much further by some later physiological doctrines that we seem to have merged all our notions of the causes of disease into that of mere *reflexion;* and whilst we are told that arthritis or gout is a malady "of a peculiar reflex action," we are also advised, in relation to our present subject, to lance the gums even twice daily in urgent cases, and we have urged upon us "the promptitude, repetition, perseverance, energy, and steadiness of purpose with which I recommend the measure to be adopted." This practice has been carried to the extent proved by the following extract from a letter:—"We have adhered rigidly to the rule prescribed since you saw him. I continued the lancing of the gums twice a day until yesterday, when I only did it once; and the same to-day, as the gums were divided, continue soft and open, and slightly ulcerated."—(See Marshall Hall.)

Exaggerated as are some of our notions about dentition, there can be no doubt, as I have said, that diarrhœa is of frequent occurrence during its performance, and is often to be viewed as its effect. But to indicate the exact relation which exists between the intestinal affection and that of the gums is a difficult matter, and, perhaps, at the present admits of no perfect solution. We find generally that the diarrhœa is of a very mild character at first, belonging rather to the sympathetic type than to any other, and immediately ceasing on the protrusion of the teeth. But in other cases, if the evolution of the teeth follow quickly on each other, the diarrhœa is more prolonged, and changes into the true catarrhal form. In neither of these cases, however, have we any reason to believe that any appreciable morbid structural lesion of the intestine has ensued. But in extreme cases, especially amongst the poorer children, neglected hygienically or maltreated therapeutically, the intestinal irritation will pass into true entero-colitis, and the life of the child may actually succumb. It has been asserted that during dentition there is a great proneness to disordered action of the pancreas, owing to its close relations with the salivary organs, and that there is great reason for supposing several forms of diarrhœa, which are then common, to be dependent on a super and morbid secretion of the pancreatic juice. It will be generally found, I think, that it is chiefly during the cutting of the canine teeth that the most troublesome intestinal disturbance ensues.

Some have regarded the diarrhœa of difficult dentition purely as a nervous or sympathetic phenomenon, proceeding either from translated irritation from the mouth and gums, or as a sort of reflex action radiating from these places as a centre. Others consider a real inflammatory state of the intestinal lining membrane exists, productive of the diarrhœa. Another view has been advanced by Billard, which is, that the travail of dentition and diarrhœa are two coincident physiologic actions having no relation to each other as cause and effect. You will discern his views, perhaps, the better if I translate his own words:—"We may say that nature has fixed for the same epoch the development of all parts of the digestive apparatus, for it is at this time that the salivary glands acquire a greater size, and secrete saliva in greater abundance. This coincidence in the normal development of the teeth and in the increase of volume and action of the follicles may explain the connection which exists between dentition and the serous dejections which happen to infants at this period. We thus easily explain that kind of sympathy noticed by authors between the evolution of the first teeth and the disorders of the digestive tube, without having recourse to those kinds of hypotheses too often made use of in the explanation of the phenomena of life. There is here a coincidence, or, if it is preferred, a functional and morbid sympathy, simply because there is a coincidence of development."

Bouchut has lately made some researches at the Hôpital Necker upon the connection between dentition and diarrhœa, which I have put into the tabular form before you for simplicity of reference:—

Out of 113 cases.
- 26 were free from all indisposition.
- 38 were restless, griped, and had slight diarrhœa.
- 46 had more severe diarrhœa.

In
- 19 the diarrhœa began at the moment of the gingival irritation, stopped when it ceased, and began anew on its supervention.
- 28 the dentition was very laborious, the diarrhœa prolonged, gradually assuming inflammatory characters, and terminating in entero-colitis.

In this country especially the power of the intestinal entozoa in giving rise to disease, both of the digestive organs and other portions of the body, has long been held as nearly equivalent to that of teething—in the minds of some persons as even more so. Among the lower order particularly the cause of the disease for which the child is brought to you is constantly indicated by the mother's phrases, "I think she has got worms, Sir," or "I think it must be his teeth, Sir;" nearly everything has at one time or other been laid to their charge. In some places, as at Paris, however, quite the opposite view has been held, and the various symptoms and sympathetic phenomena laid down by many writers as indicative of, or produced by, "worms," have been regarded as chimerical, whilst in some other parts of France they believe in their effects as much as we do. Facts I have not time to dwell upon seem to prove that there are certain countries or localities in particular climates in which verminous affections are very common, even endemic, whilst in others they are very rare; and this will account for many of the opposed statements met with in the writings of the Parisian physicians to those of some of the French "departements." Whilst in Paris verminous disorders are rare, they are common in Holland, Switzerland, Sweden, and many parts of Germany; very frequent in England, especially in the fenny and damper districts; and are met with in the west and south of France. Tænia solium is endemic at Vienna; may be said to be so at Constantinople, and at Cairo, in which latter place, it is said, one-fourth of the population are affected with it. According to the "Recueil" of the Council of Health of the French army, tænia appears to attack particularly the soldiers serving in Algeria. While the military hospitals of the interior of France afforded but two cases in from 1840 to 1846, and the hospitals of the Isle of Corsica not one, those of Algeria furnished thirty-four examples (vol. lxii., 1846). The peasantry of the Tyrol are uninfested by worms, whilst their neighbours, the Swiss, are frequently affected. In England, Lancashire is the county, the inhabitants of which are most affected by worms. Here the climate is mild and moist, and the high hills running along its eastern boundary arrest the clouds which come from the Atlantic, and produce more abundant rain than in other more eastern parts of England. These circumstances are sufficient to show you how variable may be opinions upon the effects produced by worms.

With regard to their production of diarrhœa, I may remark that you will find that, after some degree of constipation has existed in older children, they become often subject to more frequent, but small stools, chiefly of the mucous variety, unattended with sickness and griping. Sometimes blood is mixed with the glairy mucus. In such cases, although some ascarides are found mixed with the small, frequent glairy motions, it is often not until an anthelminthic purgative has been given that the true cause of the malady is seen. Then the frequent sero-mucous motions are found loaded with ascarides, whose previous irritative action on the mucous lining of their domicile can be readily imagined. In a few cases on record far more serious effects have resulted than such as I have just mentioned; and Charcelly and Mondière have shown that dysentery, intestinal ulceration, and perforation may even be produced. Upon these cases, however, I cannot dwell, nor upon the interesting example given by Tormelé, which you will find in the third volume of Rilliet and Barthez. I may also refer you to the new work "On the Diseases of Children," edited by M. Fabre, now in course of publication, and those of you who are French scholars will do well to provide yourselves with it.

Such, as I have told you, then, are the chief causes of simple, uncomplicated diarrhœa, and almost any of them may give rise to any form, whether of the simplest sympathetic or most inflammatory type. An exaggeration or prolongation of cause will induce an exaggeration of or a more intense form of disease. I might, it is true, have indicated some other presumed causes, but upon these my experience will not yet allow me to decide. Rosen affirms that mental disturbance, fear, discontent, &c., will produce diarrhœa; and Bouchut, that great fright and violent passion will do the same. The latter remarks that it may be caused by the visits and investigation of the medical attendant, and by which the child is teased, as also by the dread of, and suffering from, a surgical operation. "I have seen, more than once, diarrhœa supervene after the opening of purulent collections in the neck. At the moment of its performance the child, surprised and agitated, covered with perspiration, passes its fæces and urine, and a few hours afterwards diarrhœa is set up, which continues for one or two days." (Maladies des Nouveaux Nés.)

DUMAS ON ORGANIC CHEMISTRY.

No. XXXIV.

(Continued from p. 111.)

THE FABRICATION OF MANURES—(*continued*).

One of the best known and most frequently employed of the prepared manures is, undoubtedly, the *powder*, procured from the soil taken from our privies, and in which the earthy phosphates are found combined with various fecundating animal matters.

A vast species of manufactory, situated at the very gates of Paris, gives to the fæcal matters which would otherwise be wasted, as we find to be the case in most of the capitals of Europe, a very great value, by reducing them to a form which renders their transport easy. We must, however, acknowledge that the means employed for preparing this powdered manure, at Montfaucon, are very rude, and seem to have been

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expressly chosen for the purpose of wasting a part of those gases most useful to vegetation, and at the same time of infecting the environs and some of the most populous quarters of Paris. Still, as it is better to employ even this process than altogether to lose the fæcal matters, we shall proceed rapidly to describe its several stages.

The preparation of these matters is effected by means of six or seven large basins, which should be as accurately closed as possible, inasmuch as they have to contain the tainted liquors, and are raised above the surrounding habitations. Moreover, we can, at will, make these basins communicate one with another. One of the basins, situated about thirty-five mètres above the level of the Seine, is much more elevated than the others, and is of a much larger size. It is into this reservoir that are emptied the sewage matters or night-soil, brought from the town by means of large casks or vessels belonging to an especial class of contractors. These contractors undertake the emptying of the privies, and the removal of the solid and liquid matters, in consideration of a fixed payment made by the proprietors.

The basin into which the soil is emptied is irregular in form; it is nearly one hundred mètres in length and fifty or sixty in width, being also about ten mètres in depth. It is in this basin that the liquid becomes separated from the solid portion by a process of simple decantation. The fluid parts are carried off by means of a subterraneous tube into one of the lower basins; but, before their withdrawal, they are strained through a coarse kind of sieve, which retains the more solid matters; should any, however, escape, they become deposited in the lower basins. These latter, five or six in number, are from fifty to eighty square mètres in size, but they are less deep than that which receives the soil in the first instance, inasmuch as they are intended to retain much less of the solid matter. As we have already said, these basins communicate one with another, and are so arranged as to allow of the complete deposition of the matters held in suspension by the liquid which escapes from the superior reservoir.

The fluid matters thus run successively through all the basins, excepting that which is in course of working, and, after this long passage, the liquid is again strained through a fine sieve, and then carried off by a pipe into a drain which conveys it to the river. We may imagine that the lower basins will be a very long time before they become filled with solid matters, and in fact they scarcely require emptying once a year; sometimes, indeed, they are left for two or even three years.

When a basin is ready, we allow it to settle for some days; then, by means of a pump or archimedean screw, we force out the liquid from the basin about to be emptied into the next one in succession, provided the difference in level is not sufficiently great for this draining to be effected without the aid of such means. Each basin is emptied in its turn, so soon as it has become the first into which the liquids are directed from the upper large reservoir. This latter itself, when sufficiently filled with solid matters, which usually happens about every fourth or fifth month, is drained of its excess of liquid, and emptied in the same manner as the lower basins.

From the bad arrangement of the basins at Montfaucon, it is necessary to continue emptying the soil into the upper reservoir, even during the period of its working, taking care, however, immediately to separate the most liquid part, and to direct it into the lower basins. This stage might be rendered much more easy and regular, by forming two reservoirs for receiving the matters in the first instance; thus, whilst the emptying of the first was being effected, we might turn the soil into the other.

The working or emptying of the basins is done in a very simple manner. When the matter is sufficiently drained, we commence by opening the passage leading to the bottom of the reservoir, and then gradually remove all the matter; the carts, when filled, are driven to an adjoining open space of ground, where the matter is spread out to become thoroughly dried. The following is the mode in which this desiccation is effected:—The fæcal matter is regularly spread over the whole surface of the ground; then, after the lapse of a few hours, it is raked over, so as to refresh the surface, and thus accelerate its desiccation; this raking is repeated at various intervals, until the soil seems sufficiently dried. We then gather the matter into a heap, and at a favourable opportunity it is spread out once more in a thin layer, and triturated under the foot, so as to reduce it to a coarse powder; we now separate the pebbles and other hard substances, and finally pass it through a sieve.

The *powdered manure* may now be considered prepared, and fit for agricultural purposes. While being kept for sale, it is not uncommonly found in heaps of two or three thousand cubic mètres in size.

There are daily carried to Montfaucon about 600 cubic mètres of solid and liquid matters, which ultimately yield at the most 100 cubic mètres of powder. During the last few years, in consequence of some experiments made in my laboratory by M. Jacquemard, the liquid, which was formerly wasted, is now converted to a useful purpose. A part of it serves for the preparation of sulphate of ammonia and some other ammoniacal salts. A manufactory, constructed on the spot, is appropriated to this object; but certainly not more than 90 or 100 mètres of urine are thus consumed; the remainder, as we have already said, is carried towards the Seine. Within a short time no doubt the improvements in this branch of art will lead to the economization of all the ammonia of these liquids, and even of the other salts which they contain; for it is very probable that, if, after removing the ammonia by means of lime, as is usually done, we were to employ the residue in watering some kinds of meadow lands, &c., we should derive great benefit from the practice, for this residue contains all the phosphates, the greater part of the alkaline salts, and even some of the organic matters.

The *powder*, prepared in the manner we have indicated, sells for about 4f. 50c. the *hectolitre*.

During the last few years, it is true, some attempts have been made to carry on this preparation of manures in the midst of the Forest of Bondy, and extensive works have been erected in that locality. M. Mary, an engineer of the town, is now constructing a pipe of large diameter, for the purpose of conveying to Bondy the liquids previously separated by standing in a basin. The transport and disinfection of the solid matters (which will be thus reduced to about a fifth part) must by this means become comparatively easy.

The arrangement of the basins at Bondy is superior to that at Montfaucon, in this sense, that there are at the former place two complete systems; but the differences in level are less considerable, a condition which will necessitate a greater amount of manual labour. A drain, already formed, will conduct the liquid matters into a sewer at La Villette, which empties itself into the Seine, below the city of Paris. The urine will thus be lost, as is now the case at Montfaucon, notwithstanding that it contains an amount of nitrogen, corresponding in value to at least three times that of all the fæcal matters reduced into powder. There is no doubt but that some day this source of wealth will be turned to profitable account, instead of being allowed to run waste towards the river; already, indeed, we may foresee two ways of using it. The one of these purposes is indicated by the very position of the basins at Bondy, which overlook the entire plain of Saint Denis; we might thus employ these waters in the irrigation of this tract of land, and so considerably augment its fertility. Should it be necessary to dilute the urine with a certain proportion of water, so as to render its action less energetic, the proximity of the canal and the height of its waters, which are above the level of the basins, would render this operation remarkably easy. The quantity of sewage water, which might thus be made use of, is so considerable, that it would serve for the irrigation of a plain four or five times the extent of that of Saint Denis. There is also another mode in which the urine might be usefully employed: namely, in the manufacture of sulphate of ammonia.

Ever since the progress of chemistry has demonstrated the possibility of applying this salt to the fertilisation of lands, a host of experiments on this subject have been carried out in various countries of Europe. In England, its employment seems to have led to the best results. In France, also, numerous scientific and practical men have applied themselves to the same question, and appear to have obtained equally happy effects.

Among other trials on a large scale, we may instance those performed by M. Kulhmann, of Lille, and also by M. Schattenman.

If, then, as everything would lead us to believe, sulphate of ammonia may be regarded as the richest known manure, since it contains twenty-one per cent. of nitrogen, we see at once the immense profit that the urines of Montfaucon or of Bondy might be turned to, by transforming them into the above salt by the action of sulphuric acid. We will now attempt to show by figures that, even in the actual state of things, and notwithstanding the addition of sulphuric acid and the cost of preparing the salt, the sulphate of ammonia might be delivered at such a figure that it would become more economical than most other manures. Even at the price which this salt now-a-days commands, it might often be made to enter into conjunction with other manures.

Let us, in fact, compare the sulphate of ammonia with the powdered manure of Montfaucon. The average price of this salt, when perfectly pure and in white crystals, is about 60 f. per 100 kilogrammes; it contains nearly twenty-one per cent. of nitrogen. The powdered manure sells at about 4f. 50c. the 100 kilogrammes, and, according to MM. Boussingault and Payen, frequently contains but 1-6 per cent. of nitrogen. Now, supposing that the value of a manure be exactly proportioned to the quantity of nitrogen which it contains, it follows that 100 kilogrammes of the sulphate would produce the same effect as 1300 kilogrammes of the powder. This, therefore, amounts to saying that 60f. worth of the former is pretty nearly equivalent to 60f. worth of the latter.

It is true that the efficacy of the powdered manure does not depend solely on the nitrogen which it contains, but that we must also take account of its salts, which render it an excellen corrective for most kinds of lands. This powder, moreover, contains some organic matters, which certainly modify the properties of the water and of the air which are absorbed by the roots. But, as the expense of transport of the sulphate of ammonia would not amount to one-tenth part of that of the powdered manure, and as the matters which furnish the other elements than the nitrogen may be procured at a much lower cost, we may hope that the employment of the above salt, combined with that of earth, turf, or powdered bones, will lead to the most economical and advantageous results. The price of the sulphate above indicated is that of the commercial article; should, however, this salt find a new source of consumption in agriculture, its cost might be reduced to 40f., or even lower.

We shall not here dwell upon the mode of manufacture of the sulphate of ammonia, but shall merely add, that the urine brought to Montfaucon would suffice for the preparation of more than two millions of kilogrammes of sulphate of ammonia, representing in the amount of its nitrogen twenty-six millions of kilogrammes of powdered manure, or near upon 100 millions of kilogrammes of ordinary dung. We may judge, by these figures, of what importance it would be to the agriculturist to resolve in a satisfactory manner this question as to the employment of

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the sulphate of ammonia, and to confirm by a well-conducted series of experiments the successful results which some individuals have obtained from its use.

The next question that presents itself, is as to the manner in which the sulphate of ammonia is to be applied to the land? This is a point, however, which has not yet been satisfactorily resolved. Some have recommended it to be employed in solution, in the proportion of one or two parts to the 1000 of water; but this proceeding cannot be applied in all localities; whilst, in every instance, it would necessitate a considerable amount of manual labour. It is probable that we might obtain equally good results, without so great an expense, by sowing it either in a state of liberty, or mixed with earth or chalk, at the same time taking care to choose a favourable period, so that the sulphate shall not prove injurious to vegetation by its too great energy. Hitherto, however, the attempts which have been made with it, under this form, have not been very successful.

We know the great advantage which *animal black*—the residue from sugar-bakeries, &c.—presents as a manure, and the immense profits which result from its employment. But, unfortunately, this animal matter is of a somewhat expensive nature, and commerce furnishes us with a quantity but very insufficient for agricultural purposes; an idea was therefore entertained of forming a manure which should possess almost identical properties, and which might be able to replace it, by turning to account the fæcal matters disinfected by a cheaply-prepared kind of charcoal. This new manure, which is called *animalized black* or *charcoal*, is made from turf which is carbonized and then mixed with sewage matter; we thus produce a substance possessing several of the properties of the animal black of our sugar-bakeries. In both cases, we have an absorbent powder, somewhat like charcoal, which takes up the ammoniacal compounds as quickly as they are formed, and which yields them back again but very gradually and slowly. Now, this slowness and regularity in the production of ammonia form, probably, one of the principal reasons that give to the black of our sugar-bakeries a value, as a manure, much greater than what would appear to be indicated by the table of equivalents. This slowness in decomposition is especially advantageous in the cases of which we are speaking, for the sole inconvenience in the employment of fæcal matters, when used as a manure according to the ordinary method, consists in their too rapid and energetic action.

In the fabrication of this manure, we must make choice of an earth as rich as possible in organic remains, so that it may, by carbonization, furnish a sufficient quantity of charcoal; it is further necessary that it should be capable of being readily divided and pulverized, and that, during calcination, it be not formed into solid masses, as happens when the earth is of too clayey a nature.

We must, however, acknowledge that, even under the most favourable conditions, this carbonized earth is far from being able to compare, in so far as regards its absorbent properties, with animal charcoal, and perhaps, in this respect, the processes now employed might be made to undergo some modification. Still, the plan, commonly in vogue, furnishes us with a carbonised earth of a price sufficiently moderate to render its employment extremely advantageous. This preparation, indeed, seems to us the best that could be substituted for that of the powdered dung.

By the employment of the carbonized earth, we are consequently enabled to produce a manure, rich in nitrogen, which retains and turns to profit all the animal substances of the fæcal matters, and which, moreover, presents itself under a pulverulent form, very convenient for the purpose of its application. This manure, which is sufficiently valuable to render it an article of commerce, may be manufactured with rapidity, that is to say, in one month in summer, [illegible] in two months in winter, and its mode of fabrication does away with every smell which could prove injurious to the surrounding neighbourhood. The preparation of the powdered dung, on the contrary, requires an infinitely longer time, while the greater part of the ammoniacal compounds becomes lost and disengaged in the atmosphere.

As to the products obtained by these two systems of manufacture, they have a nearly equal value, or the animalized black is in general even the richer of the two; we can, in fact, scarcely fail in giving to it, in the dry state, a richness in nitrogen equal to at least three per cent., and it is but seldom that the powdered manure of commerce contains so large an amount. It is true, that in the powder of Belloni, MM. Payen and Boussingault found close upon 4·4 per cent. of nitrogen, in the dry state; but that of Montfaucon contains only 2·67 per cent. at the most. The mean of nitrogen in these powdered manures may then be set down at 2 or even at 1·6 per cent., in the dry state.

We must, however, acknowledge that, by reason of the mode of fabrication of the powdered manure, it contains, in a concentrated form, the salts and phosphates of a large part of the fæcal matters, and these phosphates, perhaps, give to it, beyond an equal richness in nitrogen, a value greater than that of the animalized black, which contains these phosphates in much smaller quantity. Still, I do not think that this disadvantage, in so far as regards the animalized black, can be very great, for, on comparing the analyses, we find that the relation of nitrogen to phosphorus is nearly the same in fæcal matters, and in a very great number of vegetables. Hence it follows that the quantity of animalized black, which will be sufficient to furnish the nitrogen necessary for producing a good crop, should also yield to it the amount of phosphorus which it ought to contain. Still, it is true that the animalized black is not, perhaps, in this respect a perfect manure, and that, its richness being greater with reference to its nitrogen than with regard to the other principles useful to vegetation, it becomes necessary, as with many other manures, to mix it with some supplementary substance. To facilitate this species of calculations, we ought to form, for the principal mineral substances which enter into the composition of vegetables, tables of equivalents similar to those which have been already made for that most useful of all principles—the nitrogen. The definitive rank of a manure would then depend on the position which it might hold in each of these tables.

The processes used in preparing the animal black, at the works of MM. Baronnet and Company, may be divided into two principal stages: the extraction of the fæcal matters from the cesspool, and their removal to the manufactory; then, their transformation into manure. Before removing them from the pit, these matters have to be disinfected.

Two substances are employed for this purpose, and with pretty equal success. The first is the residue from the fabrication of the sulphate of the protoxide of iron, which may generally be procured at a very trifling expense. Where it is possible to select these residual matters, we should make choice of those which have least acidity, and which contain the greatest possible amount of peroxide of iron, and sometimes also of zinc. We can readily understand the mode of action of these salts.

Another preparation, often employed at the above manufactory for the same purpose, is a solution of the foregoing matter which is poured into the pit, and to which is added, also in solution, an equal quantity of common soap. We have thus formed a metallic oleate, which appears to become more readily decomposed than the sulphates under the influence of hydrosulphuric acid and of hydrosulphate of ammonia. In all cases, the soap and fatty liquids are of use in this operation for the purpose of forming, over the surface of the soil, an oleaginous layer, which prevents the diffusion of the hydrosulphuric acid, and of the vapours of hydrosulphate of ammonia.

This operation of disinfection transforms the volatile ammoniacal salts which exist in the fæcal matters into a fixed salt, that is to say, into sulphate of ammonia.

The fæcal matters are extracted from the pit by means of a bucket affixed to a chain, and moved by a winch. This machine is made to occupy as little space as possible, and it can thus be employed in almost all houses. The pits should be built deep, or hollowed out at the bottom, so as to be capable of preserving the liquids; the matters are thus prevented from becoming too thick. Without these precautions the soil would have to be extracted in the ordinary way. When drawn from the pit, the matters are emptied at once from the buckets into casks, without being for an instant exposed to the contact of the air: for the whole machine is guarded by a tin covering, and the gases which are disengaged from the fæcal matters are compelled, before reaching the air, to traverse a small apparatus containing chloride of lime.

The operation is often performed in this manner in the open day, and the disengaged odour would, on account of the tin covering, be but very slightly perceptible, even if the precaution were not adopted of disinfecting the matters before withdrawing them from the pit.

The fæcal matters are then transported to the manufactory where they are to be converted into manure and mixed with carbonized earth, for the disinfection produced by the sulphate of iron is not of a permanent character. The soil is, therefore, turned into basins, and by means of a shovel we add to it nearly an equal volume of carbonized earth; we mix the whole as perfectly as possible with a long iron rod, then leave the matter to settle, and finally, after raking it up at the most elevated part of the bottom of the vessel, we allow the liquid which still remains to escape by means of small trapdoors. To facilitate this draining of the liquid, the lower part of the basin has a slight inclination downwards along its entire length.

The mixture of carbonized earth and fæcal matters is then spread upon a hard impermeable soil beneath a shed or covering, and dried in the air, care being taken frequently to rake over or renew the surface. When it is sufficiently dried, we add to this first mixture a second time its volume of fæcal matters, and prepare as in the former instance. This process is repeated until the earth forms but about a fourth part of the obtained product, which, in general, takes place after the third addition, provided the operation be properly conducted, and especially where the fæcal matters which are employed contain a large proportion of solid products.

This operation which, under the employment of carbonized earth, gives out but a very trifling odour, consumes about a month in summer, and two months in winter. The most favourable season for the fabrication of this manure is the spring, and we should, if possible, take advantage of that period for forming our principal stock.

As to the carbonized earth itself, it used formerly to be prepared in jars or iron pots, but M. Baronnet has substituted for this process a species of oven, which is much more economical. This oven is composed of several inclined frames or shelves, around which the fire is made to play, and upon which the earth is placed. The upper shelves have an iron bottom, but the lower one is entirely constructed of hard bricks. When the earth contained in the lower frame is sufficiently heated, that is to say, when it is of a dark-red colour, it is to be withdrawn from the oven, and the contents of the upper divisions are to be raked down into the lower ones, whilst, at the same time, we introduce a fresh charge into the uppermost box. We thus charge the oven at intervals of three quarters of an hour to an hour each. On its removal from the oven, the earth falls into an iron box, where it is allowed to cool without being exposed to the air. As soon as it is cold, it is ready for use in all those cases where

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we wish to turn its absorbent power to account.

The earth which we employ should be sifted, and reduced to as fine a powder as possible. That of a clayey nature is good, as the ash which it produces is finer and more absorbent; but, when the proportion of clay is too great, it is apt to form itself into brick-like cakes—an accident which we must endeavour to avoid.

A little carbonate of lime, when mixed with the earth, augments its power of division and renders it smoother; we must, however, add but a very small quantity, for, should there be much lime formed by the calcination, it might tend to dissipate the ammonia at the moment of the admixture of the earth with the fæcal matters.

It is further advisable that the earth should be somewhat moist when carbonised, for the watery vapour which is disengaged, when it reaches the lower shelves, draws with it the air which is found in the interstices of the earth on the upper divisions. In this way, the carbonization is effected almost entirely free from air; whereas, when the earth is too dry, it almost always happens that, in place of becoming carbonized, it burns in the lower shelf, although it may be only at a low red heat.

An oven, six mètres in height, is capable of carbonizing, in the twenty-four hours, five or six cubic mètres of earth.

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 I. (*concluded*).

Various sorts of gas can be expelled from the stomach by eructation. Thus, atmospheric air, carbonic or hydrosulphuric acid, may be rejected and carry with them a certain amount of a very acrid fluid: this pathological fact takes the name of heartburn (*aigreurs*). When gas is emitted during gastric digestion, it is always a symptom of a morbid state of the digestive organs. In cancer, during the first period of the disease, eructation of gas is a frequent symptom; but as the malady advances it is attended with the return of more or less acrid matter. When the stomach is empty, eructation is also met with, but is more frequent in general neurosis, as in hysteria, for instance, than in maladies of the stomach.

Gases may also accumulate in the stomach, and, when not expelled, distend it to such a degree that the organ may burst; this occurrence—extremely rare in man, but which has been known to occur (vide "Archives de Médecine," Aug. and Sept., 1842, a paper by Dr. A. Lefèvre) — is far from uncommon in animals, particularly oxen.

Inspection of the epigastric region leads often to the detection of tumour, of their size and form, and at once causes the presence of fistula to be recognised. Palpation of the same region shows if the viscus be tender on pressure or not, and permits the physician to feel the presence of tumours, generally formed by cancer. A tumour in this part may not, however, be always the sign of malignant disease; a singular case was published in the "Gazette Médicale," for August, 1847, in which hair had been swallowed, and formed in the stomach a hard swelling, which was mistaken for cancer. The changes of position of the abdominal viscera due to their state of vacuity or repletion also modify continually the situation of tumours of the stomach, so as to render their detection a matter of some difficulty, and requiring repeated examinations before a definitive opinion be expressed. Cancers of the stomach are usually uneven, moveable, and only partially dull on percussion; those belonging to the liver are immoveable and completely dull.

Morbid distention of the stomach will be recognised by the form of the enlargement, and the sound produced by succussion; it may be produced by pyloric obstruction, by morbid adhesions between the stomach and the colon or liver, by destruction of the muscular coat in the neighbourhood of the pylorus—the passage remaining unobstructed, by atrophy or paralysis of the muscular coat of the organ. When the pylorus is obstructed, the distention of the stomach is readily accounted for; but when the passage remains free, a portion of the muscular tunic being destroyed by cancer, we must admit that the enlargement has resulted from the impossibility of the progress of the alimentary bolus, and hence its accumulation and the distention of the cavity. Percussion permits us to recognise in the stomach the presence of fluids and of gas; in hypochondriasis, gastric flatulency may be demonstrated by percussion, and is often sufficiently notable to produce dyspnœa. Succussion, also, is sometimes very useful to the diagnosis; in pyloric cancer, for instance, it produces a gurgling sound, which is almost pathognomonic of the disease.

SIGNS FURNISHED BY EXPLORATION OF THE INTESTINES.

The sensibility of the intestines may be increased by disease; it is more increased, however, in colitis than in enteritis. In subjects affected with typhoid fever we observe great differences in this respect, some experiencing little or no pain; others, on the contrary, suffering considerably on the slightest pressure over the abdomen, and particularly over the ileo-cœcal region; these differences are to be explained by the more or less superficial nature of the ulcerations: when they are deep, and repose upon the peritoneum, they are usually accompanied with great tenderness of the abdomen. In the enteritis which is so frequently observed during the last stage of consumption, the pain is sometimes very great, for the reason above stated. In acute colitis, dysentery for instance, the patients complain of great pain, not precisely on pressure, but in paroxysms; the suffering can be traced from the cœcum to the rectum, and causes a sense of weight and spasmodic contractions of a very distressing nature. In chronic colitis more pain is present than in chronic enteritis. Persons who have had dysentery sometimes preserve a morbid sensibility of the intestines, and their motions are most painful, particularly when the bowels are slightly confined—a state of things which requires the combined exhibition of aperients and narcotics. Intussusception is also productive of much suffering, and is attended with obstinate vomiting and other symptoms of strangulation. Accumulation of solid matter or of gas may be equally productive of pain: but tubercles, or cancer of the intestines, do not cause pain; except, indeed, cancer of the rectum. We should also add, that in cancer of the intestines pain is always observed whenever the disease causes obstruction of the tube and prevents the progress of the alimentary bolus. Piles, occasioning congestion of the rectum, may also occasion intestinal suffering; and the burning pain which attends fissura ani is special to that malady.

Most intestinal pains bear the name of colic, to which is superadded an epithet—bilious, inflammatory, nervous, &c.—to designate its nature. Nervous colic, or enteralgia, may arise spontaneously, and is remarkable sometimes by its extreme intensity and the faintness which it produces; it is occasionally the result of rheumatism; and in the disease called "colic of Madrid" it is due to the sudden changes of temperature frequently noticed in the climate of that city. In the neighbourhood of the Ganges a similar form of colic is also observed, under the influence of the same causes. In colica pictonum enteralgia is also present; it is not always relieved by pressure, but pressure certainly diminishes the sufferings of the patient during their exacerbations. The form of the abdomen in this disease is not changed nor its walls retracted, as it has been so often erroneously stated. Nervous colic has been known to assume an epidemic form, at sea, for instance, after the prevalence of cold winds. In the colic caused by copper the pain is also very great, but is accompanied by diarrhœa, and the disease certainly participates more of the nature of inflammation than of that of neurosis.

SIGNS FURNISHED BY THE ALVINE EVACUATIONS.

These evacuations may escape from abnormal orifices, from fistulæ situated on the abdominal walls or from openings into the bladder, vagina, &c. The anus may be imperforate in new-born children, &c. The stools may be suppressed in intestinal disease, at the outset of entero-colitis, or, after diarrhœa or purgatives, in enteralgia and colica pictonum; they also are absent when the passage through the intestines is obstructed, whatever the cause of the obstruction; in cerebral or spinal disease, occasioning paralysis of the muscular coat of the intestines; or when spasmodic contraction of a part of the intestines interferes with the passage of the matter contained within their cavity. In diseases not affecting primarily the bowels we also may find suppression of the motions; thus the bowels are usually constipated in peritonitis, or diseases of the stomach, &c.

The increase of the alvine discharges bears the name of diarrhœa. Thus, in enteritis, whenever the follicles are enlarged, diarrhœa generally appears; this we observe in chronic diarrhœa, in cholera, &c. These diarrhœic stools may consist of mucous matter, or of a bilious flux, which does not by any means require intestinal inflammation for its production, but may simply result from increased hepatic secretion. In other instances the increased number of the motions is caused entirely by a greater activity of the peristaltic contractions of the intestines—a fact we often notice as a consequence of mental emotion, and in the diarrhœa of children, without the interference of inflammation. The quality of alvine discharges may also be modified. They may, for instance, contain undigested articles of food: when the intestines are irritated in one point, it is a fact demonstrated by observation that gastric digestion is incomplete, and allows unaltered nutriment to pass into the bowels: again, when the stomach is incapacitated by disease from performing chimyfication. In children lientery, as this form of malady is termed, is not unusual, and milk is expelled in solid masses with the fæces. When the stercora contain no bile, they are soft and ash-coloured; this symptoms is always connected with the presence of some obstacle to the free circulation of bile in the ductus choledochus or hepaticus. Diminution of the biliary secretion also causes irregularity of digestion, costiveness, and change of colour of the fæces: this state of things, not sufficiently noticed in France, has always excited much, perhaps too much, attention in England. Bile may also be discharged too copiously into the bowels, and communicate to the stools a dark-green or yellow colour. This is generally indicative of intestinal irritation, and may be connected with a morbid state of the liver. The green colour of the expelled bile is due to the modification of that fluid by the acescent state of the intestinal mucous membrane. Biliary discharges are frequently observed in spring and summer; they are even endemic in equatorial climates. The evacuations may be of a mucous nature: in dysentery, for instance, the stools are constituted by mucus tinged with blood; the mucus may be very consistent, and has been in that state mistaken for fragments of tænia, or it may be liquefied and even puriform. In some morbid cases a watery discharge is observed, analogous, perhaps, in nature to the perspiratory fluid secreted by the skin.

The stools may also contain substances which are not usually met with in the intestines: a portion of intestine, for instance, detached by gangrene may be expelled; fragments of false membranes are sometimes rejected. Blood, when it has been recently extravasated, may pass with

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all its physical characters into the motions; but when the internal hemorrhage is less recent, it generally communicates to the evacuations a black colour. The former is observed in piles, dysentery, &c.; the latter in typhoid fever, and cancer of the intestines or of the stomach. The rice-water stools of cholera have been said to be constituted by the serum of the blood, and on this hypothesis an ingenious theory of the disease has been constructed. The fluid of these motions contains, however, no albumen, and, therefore, the theory falls to the ground; as to the white particles which float in the fluid, they are formed of innumerable corpuscles, furnished with very distinct nuclei and nucleoli, and are perfectly analogous with the corpuscles of pus. Pus is also found in the alvine discharges, and is always the symptom of a certain number of well-determined maladies; it is found in ulcerous colitis and in advanced cancers; in abscess of the liver and ovary; and may result from the opening into the intestines of purulent collections formed in various parts of the pelvis. False membranes, detected in the stools, are the sure signs of inflammation of the intestines. Intestinal or hepatic entozoa, calculi and foreign bodies may also be contained in the motions. Their colour is sometimes changed by various medicines: they are coloured by calomel, green, and black by iron. Microscopic examination of the fæces in cancer would probably show them to contain cancerous cells; and crystals have been met with, which Dr. Remak, of Berlin, erroneously asserts to be special to typhoid fever.

Gases may be produced in the intestine, hence borborygmi, indicative of indigestion and enteritis; hence, also, tympanitis, which is produced whenever an obstacle interferes with the circulation of the contents of the bowels, or in fevers, when the nervous system participates in the general disturbance. It is a singular and unprecedented fact, that in typhoid fever it is not the diseased part of the intestines which is occupied by tympanitis, but the colon; in fevers this accumulation of gas is always a sign of the most unfavourable nature. In neurosis, tympanitis is also a common symptom; we find it in hysteria and in hypochondriasis.

By ocular inspection we detect many diseases of the digestive tube: meteorism, tumours, piles, cancer of the rectum, syphilitic sores, fissura ani, fistula, abscess, displacement of the rectum, &c. Palpation informs us of the presence of fluids and gas in the intestines, shows the presence of stercoral tumours or cancerous degenerations, spasmodic contraction, intussusception; and percussion permits us to ascertain correctly the volume and shape of tumours, &c.

In our next lecture we will begin the study of the signs furnished by the organs of circulation.

ORIGINAL CONTRIBUTIONS.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

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

[Illustrated by Portraits of Cases.] (a)

(Continued from page 154.)

HYSTERIA.

How shall I commence a description of this protean form of disease? I scarcely know in what manner to begin, or where to extend my observations, for truly this singular deviation from healthy nervous energy does so constantly tinge, or disguise, or mimic other diseases, that in the whole class of female disorders it is ever creeping in, more or less, to the annoyance of the patient, and to the still greater perplexity of the medical man.

But as I am to notice those cerebral disturbances, the symptoms of which assimilate themselves so much to those of real diseases of the brain, and lead the practitioner oftentimes to suspect cerebral lesion, or poison, or inebriety, when there is neither the one nor the other, I would at once describe a case, such as it is our lot to meet with contiually in this building.

It is usually about the dead of the night, at least most commonly in the evening, that a large posse of police, with a fair attendance of women, carry into the out-patients' room a female, strapped down on the stretcher. It is stated that she has had a fit, and screamed and became so violent that all efforts to control her were quite ineffectual. We are summoned to the case just as we have retired to bed, perhaps; we find a fat, healthy-looking young woman prostrate on this stretcher. Her eyes are fixed, pupils dilated, acting slightly under a strong lamp; she is pinched, slapped, her hair pulled, and every effort made to rouse her, but all is in vain. Perhaps we may see through the case at once, however, the moral force here is invariably more effectual than the physical. We notice a nictating eyelid, and a snort or groan is given, yet there she lies unconscious, apparently, to all that is going on around her. We raise a commanding and authoritative order that all persons shall be immediately excluded; thus, "Policemen turn out the whole of these persons, both male and female." "Four policemen stop here to assist us;"—pausing. "Now, policemen, bring her up to the light;"—again pausing. "Some severe measures must be taken in this case, Mr. House-surgeon." "Nurse, bring in two or three pails full of cold water." "You, night-nurse, go and procure two or three thick blankets." "Call up the surgery-man to shave the head." "Get the stomach-pump in order, if you please, Mr. House-surgeon." And thus one order follows another; the policemen stare, and are all attention and mute; there is a pause between each order so given; the medical officers whisper together as to the probable exposé that will soon take place, and whilst the cold water is running into the pails, and the blankets are being passed around her waist, and the clack of the large scissors is heard over her fine but dirty locks of hair, our patient opens her eyes, and with (apparent!) astonishment cries out, "Where am I?" "What are you going to do with me?" "Let me go home!" "O, mother, do take me away from these cruel brutes," &c.; and thus often and often does our patient get up from the stretcher, rub her eyes, walk about the room, and leave the building without a single attempt made on our part beyond this to rouse her. A young woman whom I admitted on one occasion lay two days and nights in this state, until I was worn out with the deception, though I did not at first suspect the case to be hysteria; and, having bound her down in bed, I stood over her, together with the house-surgeon, and kept up a stream alternately of cold water upon her forehead for the space of a quarter of an hour, when she roused up, and cried, "O, Mr. Corfe, do have pity upon me, and don't drown me outright." This young woman had frequently been a patient in the medical wards before, with almost every form of hysteria; for instance, she walked on the tip of one toe, with the hip and heel elevated, for nine or ten months; this was ultimately conquered by the cold douche and moxas; but when this fit arrived, I was posed, and could scarcely believe it to be hysterical in its character, until I had narrowly watched her during the whole of the second day.

But it would lead me too far astray from the subject in hand if I was to relate a third part of the perplexing, obstinate, and deceitful cases that have presented themselves to my notice under this head; truly one might easily compose a large volume upon the subject, and, when completed, little information, and no practical benefit probably, would be derived from its perusal; these cases must be seen repeatedly, their phases watched and compared, one with the other, before the practitioner can be led to suspect hysteria where it exists.

There are other cases, however, in which females become extraordinarily excited, and this usually occurs from a small quantity of liquor taken upon an empty stomach; their passions are excited, and rouse up the mind to the highest pitch, and they are dragged or carried into the hospital, screaming outrageously, tearing the hair, knocking the head on the floor, rolling about like maniacs, nay, I question if any scenes are witnessed in a lunatic asylum similar to these repeated exhibitions in our large hospitals. Now, all attempts to pacify such persons by ordinary means, as by argument, by medicine, or by reasoning, are fruitless; they are like eels for wriggling, and like bulls for fierceness and strength; our only alternative is to fix them on the stretcher, and strap them there; mount a chair placed on each side of the head, and keep up a constant small stream of cold water on the face; and the more they scream, the more cold water they are obliged to gulp down their throat, until the globus is conquered, the head cooled, the passions subdued, and, when they really find that we give the more in proportion to the screaming, they become calm, and sue for pity in some such language as, "O pray, Sir, let me up;" "Don't, pray, give me any more;" "I am very well now;" "I'll make no more noise," &c. &c.

It must be always borne in mind that the pitiable subjects of epilepsy present another train of symptoms from those I have cursorily described, and yet there is such an apparent assimilation in the two paroxysms that even a practised eye cannot, at all times, decide which disease the patient is labouring under. However, I shall briefly relate the main features of the two diseases. The hysterical patient throws the trunk and limbs about with strong convulsive movements, wriggles from side to side; there is no distortion of the features, there is no foaming at the mouth, no fixedness of the eye, but it rolls about, and the lids nictate, sometimes in the most rapid manner; the pupils obey the stimulus of light, the skin is hot, the pulse is quick; there is no loss of consciousness, but grinding of the teeth occasionally, though the tongue is never bitten.

The epileptic patient lies more tranquilly, though there are convulsive throes, yet they are regular in their action, and confined chiefly to one side of the body; she is not unmanageable, a nurse can usually control her movements. The face is more or less distorted, livid, and foam issues from the mouth with or without blood; the expression of the countenance is always altered in a paroxysm of epilepsy, but rarely so in hysteria; indeed, the distortions are as frightful in the one as the features are placid in the other; the cornea is bright and glistening in the former, whilst it is dull, or lifeless, or expressionless in the pitiable epileptic. I never was deceived yet by the state of the iris before a strong hand-lamp in these two diseases. In hysteria it will contract readily, again dilate and again contract so long as the light remains before the cornea; the eyeball will roll and oscillate under this stimulus.

But the eye of the poor epileptic will evince none of these movements under a strong light. Often and often have I suddenly darted the strong glare of a lamp at a "fit case," brought in by the police on a stretcher, and though there were no symptoms of consciousness before, she has heaved a deep sigh, opened her eyes, turned away her head, and evidently showed herself up to be in an hysterical paroxysm. A few smart showers of cold water, from a quart jug, have soon brought her to her senses. Senses! should I say? No; brought her to unmask and exhibit some of her real characters. I am willing to admit, with the most eminent authorities of the present day, that many of these hysterical paroxysms only occur in those females where the uterine functions are more or less disturbed, and the general health impaired; and that, to a cer-

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

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tain extent, they have not a control over these fits, when they approach, so as to shake them off. But by far the largest number of females who are either brought here, or who are seized in the wards of the hospital, present no such history. Their passions of jealousy, envy, rage, malice, or disappointment have been roused, they have "worked themselves" up into a rage, and at length have gone off into "a fit." Now, the history of many such patients does not enable you to lay down the proximate cause of this attack to any functional disturbance. When calm, they will inform you that they were in excellent health; that they were annoyed, excited, or chagrined at some occurrence or other, perhaps a mere trifle, and they have "boiled up" at it; and thus reason has lost her sway, the reins have been let loose upon the neck of the evil passions of the heart, and woman are thus ungovernable and no longer able to attend to parental advice or submit to any control.

There is also an epidemic character about hysteria: a whole ward has been infected by it upon the admission of one strongly marked case: globus has arisen in this one; pleurodynia in another; syncope in a third; nervous crying, sobbing, barking, hiccoughing, and laughing in another; a fractious and determined opposition to all discipline in the ward, or an obstinate refusal to take medicine, or be on amicable terms with the nurses and other patients, has sprung up in many more, so that there is a complete mutiny amongst the whole, some criminating others, and recrimination following in return. In the midst of this worry, vexation, and, to my mind, most annoying state of things, we are suddenly called to a case in the ward of "a girl in a fit." The paroxysm is well marked, and, without any ceremony, we commence a thorough sousing of cold water; the patient soon rallies out of it: the whole ward is in consternation at the boldness and "cruelty" of the treatment, but to a certainty, almost, we hear of no more hysteria, or hysterical symptoms, for months afterwards. Nay, I have transferred quarrelsome, irritable, and hysterical patients from a disturbed ward to one that was quite orderly and free from the malady, and the infection has run through the room, until some severe measures were adopted to "nip it in the bud." Can any argument be stronger than this, that there is very much more under the control of the will than some writers upon this subject are willing to admit?

A striking instance occurred some time ago in proof of this assertion. My valued friend James Clayton, Esq., requested me to accompany him in one of his usual visits to a female charity-school, to which he is surgeon, in the suburbs of London, in order, as he observed, that I might witness a very curious pathological scene. I was not made acquainted fully with the singular phenomena that were to be presented to my notice; indeed, it would have baffled description: for we were shortly ushered into the sick dormitory, when no great stretch of the imagination would have led a person to suppose, who had been introduced into the room blindfolded, that he was in a menagerie of gallinaces; there was, in short, the squall of the peacock, the quack of the duck, the crow of the cock, and the cackling of the turkey sent forth by a group of eighteen or twenty girls between the ages of twelve and sixteen. It was most ludicrous, and "the uproar in the building now became alarming to the neighbourhood, and from the loudness of the sounds it was difficult to separate the patients effectively;" and yet the above-named gentleman had attempted various means to eradicate this imitative epidemic from the school, but it had been hitherto ineffectual; and one of the main objects of my visit was to inform them all, before me, that I had made arrangements at the hospital to receive them there, where they would be roughly handled with showers-baths, &c. &c., unless the complaint left the house.(a) This information had its desired effect: the thoughts of going into a hospital, before they were really *ill*, drove away this mimicry and worrying noise, and I have not heard that it has ever returned.

Some pathologists would probably consider the above epidemic more entitled to the name of chorea than of hysteria, but we must place it, I apprehend, where the zoophytes are placed in natural history, that is, between the two kingdoms, as it partakes of the character of both of these diseases in some respects.

A plump and well-formed child, only ten years of age, is now in the hospital, who has been kept on her back upwards of four months, for reputed spinal disease; the countenance is placid, the voice unusually deep-toned, the legs drawn up to the abdomen, the bowels costive, and the tongue furred. Both Dr. S. Thompson and Mr. Shaw, contrary to my suspicions, declared that it was purely nervous and totally unconnected with spinal disease. The former gentleman desired that the child should have cold affusion to her body by means of sponging daily, and that she should be made to walk a little, if possible. To my surprise, when she was, after much labour and perseverance, made to put her feet on the ground, it was apparent that, if her mind was engaged by conversation and repeated questions, the legs were placed on the floor, and used as well as a healthy person, but that, if she was allowed to stand still and "look at her legs," the knees tottered, bent, and down she sank and squatted on the floor. Seeing through this nervous trick or fraud, I then used rather rough language, scolded her, and made her walk again and again down the ward, till at length, in a few days more, with patient labour, firmness, and yet some coaxing, she had made so much progress that I yoked her arm in arm with a bad case of chorea of the left side which came into the ward. But it was observed that the little urchin had depth of discrimination enough to walk on the side, and take the arm, of the calmer half of the chorea girl. In remonstrating with her for not taking the other arm on the wriggling side, she coolly looked up and said, "O Sir, that's the dance arm, and I can't hold by that." However, she was ordered to make friends with the dance arm, and, as the girl was half a foot taller than this child, its rotary motions, as they walked side by side, soon brought her to feel that walking *without* such a restless companion was by far the pleasantest mode of exercise and progression. This is the only instance that I can remember of such a well-marked form of nervous depression, idleness, and indolence, occurring in a child who had not completed her tenth year, and yet it formed a most ludicrous though instructive lesson to the whole medical class. But the cerebro-spinal system often participates in this sluggish, morbid action to such an extent, that the patients are convinced that they can neither walk nor sit.

One of the many remarkable instances of this description occurred here a few years since. A plump, healthy-looking woman was admitted into the physician's ward, whose mother stated that she had a disease of her spine, that she had never been able to walk for nine years, and had wholly kept her bed during that period. On examination of the spine, which was quite straight, though morbidly sensitive in every part, the surface bore evident marks of the treatment she had undergone from various medical practitioners who had seen her. Eschars from issues, setons, cupping, leeches, and tartar-emetic ointment were profusely scattered over the whole column. Her mother, it should be observed, was entirely supported by the kind contributions of several ladies and gentlemen in the neighbourhood, who subscribed small sums weekly for the support of this widow and her only daughter. The first thing we did was to dress her and to place her on her legs, when by dint of bullying, drilling, swinging, and dragging one leg after another, we succeeded in ten days in making her walk up and down the ward leaning on the nurse's arm, and in three weeks from her admission she was walking with firmness and alone in the hospital garden. The mother came to visit her daughter, and, seeing her moving about the ward alone, commenced a most violent tirade of abuse against the daughter, nurse, and the medical gentlemen, for making the woman walk. Her language too plainly betrayed her real sentiments; for it was certainly not joy on beholding her daughter's perfect restoration in the use of her limbs in the short space of three weeks, but rage at the loss of her weekly allowance. Accordingly she went round to the families and set afloat the most vicious lies respecting our treatment of the woman, and, of course, no small share of scurrility was heaped upon my back; this brought many inquirers to the hospital, and when these kind friends heard the real state of the case, and saw the patient in rude health walking about the wards, they were so indignant that they very properly withdrew all support from the deceitful couple.

In another instance, a young, healthy-looking woman had been on crutches for nine months with diseased hip-joint, so called; her toe only touched the ground, and she declared she could not walk without these supporters. I immediately took away such unnecessary props, placed her upon a high table, and made her swing her legs for two or three hours in the course of each day. I then drilled her up and down the ward, and at length, by hard and laborious perseverance, she walked out of the hospital in a few weeks as firmly as the most robust person, and more grateful to us for our labours than the preceding individual.

(To be continued.)

(a) These curious cases are drawn up in detail by Mr. Oscar Clayton, and will be found in the twenty-sixth volume of "The Medico-Chirurgical Transactions," 1843.

CHLOROFORM IN CAPITAL OPERATIONS.

Communicated by E. THOMAS, Esq., House-Surgeon to the Cumberland Infirmary, Carlisle.

At present the medical press in this country teems with accounts of operations performed upon patients whilst under the influence of the new anæsthetic agent, chloroform; an abridged account of three cases, where it was used by Mr. Page, may not be without some interest to your readers. Mere sketches only of the cases are given, yet, perhaps, sufficient detail for the purpose in view, without comment or inquiry.

CASE 1.—COMPOUND COMMINUTED FRACTURE OF THE LEG—AMPUTATION TWENTY-FIVE HOURS AFTER THE INJURY—DEATH ON THE SIXTH DAY AFTER THE OPERATION.

A railway labourer, aged forty-five years, admitted from Moffat, in Scotland, into the infirmary, at two A.M., on Sunday, Nov. 28, under the care of Mr. Page, in the following condition:—Cold and quaky; pulse small and feeble; much exhausted from loss of blood, and fifteen hours' unavoidable suffering, and a journey of fifty miles. Upon examination the right leg at its lower third was nearly severed by an oblique lacerated wound. Wine, brandy, and beef-tea were administered, and heaters applied externally to the feet and back. Reaction soon followed, and, when fully established, Mr. Page resolved upon amputating below the knee, as the most favourable opportunity under such circumstances. A drachm of pure chloroform was sprinkled upon a dinner napkin, folded into a conical shape, and thus applied to the mouth; in a few moments he became unconscious, talked loudly, and, judging from his discourse, apparently busily engaged at his work and in conversation with his mates. The inhalation produced no cough, but his propensity to spit and to spatter proved rather annoying to the assistants. Six or more vessels requiring ligatures, the flaps were placed in apposition, and maintained so with long strips of wet lint. He soon recovered from its soporific effects, and, when questioned respecting his past sufferings, said that he felt no pain. The subsequent history may be thus summed up:—First day, as usual, after a painful operation, he was ordered a drachm of laudanum, and every hour beef-tea with a little brandy, which he seemed to take with relish; late in the evening the same quan-

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tity of laudanum was repeated, which produced some refreshing sleep. Second day: He was fed as on the previous day, and towards evening he began to wander. Third day: The stump was dressed with water-dressing, the anterior flap sloughing, the discharge thin and fetid, hiccough very troublesome, talked incoherently when alone; he was fed with eggs, brandy, and beef-tea. Fourth day: Passed a restless night, hiccough distressing, unconscious of his condition and situation. Fifth and sixth days: Constantly harassed with loud hiccough, continually muttering, opiates producing short intervals of relief. He died in the evening without a groan. On examination after death, the main vessels were found healthy; in the ham, beneath the popliteal vessels, there was a considerable quantity of extravasated blood, but the large vessels were uninjured. The left fibula was broken, and very extensive extravasation of blood found amongst the muscles on the front and back of the left leg and thigh; the abdominal and thoracic viscera were healthy; the mucous membrane of the duodenum was very vascular, this membrane, otherwise, throughout was healthy. Minute crystals of lithic acid, in clusters, were found attached to the calyces in both kidneys, doubtless a recent formation, owing to the sudden change in his diet.

CASE 2.—FRACTURE OF THE LOWER THIRD OF THE LEFT THIGH—COMPOUND FRACTURE OF THE LEFT FIBULA—GANGRENE ON THE THIRD DAY, AMPUTATION ON THE SIXTH, DEATH ON THE EIGHTH DAY AFTER INJURY.

A railway labourer, aged twenty-three years, admitted from Moffat at two A.M., on Sunday, Nov. 28, under the care of Mr. Page, much in the same condition as the one before mentioned. He was treated in the same manner, and the mangled limb loosely fixed to a well-padded Desault's splint, with every precaution observed so as not to produce undue pressure; notwithstanding, gangrene appeared on the third day, and on the sixth it was limited by a line of demarcation to the upper third of the leg, when Mr. Page resolved on amputating the thigh.

The patient was subjected to the effects of chloroform, in the same manner and in the same quantity as before, and with very similar results, except that this man became more unmanageable, hooting, bawling, and singing old ballads during the operation. The stump was dressed with long strips of wet lint, and the man put in bed. He soon recovered, and said in reply, that he felt no pain. He had a drachm of laudanum immediately, which was afterwards repeated after an interval of two hours; this eased him, but though easy he was very restless during the night.

Second day. He was observed to wander a little, but took a good deal of nourishment; though the pulse was small and scarcely perceptible in the morning, he rallied wonderfully towards evening; towards midnight the delirium increased, the pulse became fainter and fainter till three A.M., when he died, despite all that could be done to avoid the fatal termination by means of stimulants of every description.

Upon examining the stump after death, gangrene had not reappeared; the main trunks and the smaller ones, which required ligatures, were healthy. The large vessels in the amputated limb were pervious to the lower border of the popliteal space, where the calibre of both had been obliterated by coagula adhering firmly to their walls. The artery, vein, and nerve escaped injury at the seat of fracture. The condition of the vessels below the knee could not be ascertained, on account of the decomposed state of the whole thickness of the limb. The thoracic and abdominal viscera were healthy.

CASE 3.—COMPOUND COMMINUTED FRACTURE OF THE LEG—AMPUTATION ON THE SIXTH DAY AFTER THE INJURY—PATIENT RECOVERING.

A railway labourer, aged twenty-one years, admitted from Moffat, at two A.M. on Sunday, Nov. 28, under the care of Mr. Page. The left leg at its middle was much shattered, but his system had not suffered so severely from the shock as that of his mates. Mr. Page saw him upon his admission; he had it placed upon Luke's splint, supported on a cushion, wishing to save the limb, if possible.

He soon rallied, and for two or three days progressed favourably; but by the fifth day extensive suppurative inflammation had been set up; and, in addition, his appetite, before good, was failing, and his rest, before unbroken, was disturbed with pain and spasms in the leg. It became evident that amputation was the only measure remaining.

On the sixth day Mr. Page removed the thigh at its lower third, the patient having previously been placed under the influence of chloroform, in the same way as before mentioned. In a few moments he became unconscious, and just as the limb was about to be transfixed he had a violent convulsive fit; this caused a little anxiety and delay. The fit being over, the operation was performed. The patient by this time being half conscious, he was rather troublesome and disposed to be violent.

The stump was dressed in the same manner as the others, with wet lint, dispensing in all, for obvious reasons, the application of sutures; and, with the exception of a little wandering and muttering after the operation, which drachm doses of laudanum, with stimulants, checked, and procured a good night's rest, he has since been going on most favourably, notwithstanding the unpleasant phenomenon produced by the inhalation.

CHLOROFORM APPEARING TO SUSPEND UTERINE ACTION.

By ALEX. TYLER, M.D., Physician-Accoucheur to the Anglesey Lying-in Hospital.

Having administered the chloroform this morning to a young woman, an intern patient of the Anglesey Lying-in Hospital, I hasten to let your readers know the particulars of the case, as at this time all facts in connection with the administration of this new anæsthetic agent must be of value and interest to the profession.

I feel much pleasure in corroborating the accuracy of Dr. Rigby's statements, contained in the last number of your valuable periodical, with regard to the recession of the presenting part of the child during the state of anæsthesia, evidently indicating at least temporary suspension of uterine action as one effect of this powerful agent.

The patient was a primapara, and had been in active labour (by the pupil's account, excruciating) for upwards of twelve hours, until eight A.M., when I saw her. The head had then descended fully into the pelvis, and was protruding during a pain between the labia. An enormous tumour of the scalp had formed. She had one powerful pain on my entering the ward, and in less than five minutes another, equally strong, during which she besought us to relieve her present state of agony. Under these circumstances I at once administered the chloroform, sprinkled on a napkin, and held before the patient's face, as directed by Dr. Simpson. The effects were rapid, and exceedingly gratifying as regarded the patient's feelings: she appeared at first to fall into a tranquil slumber, then talked for a little about her affairs; but all uterine action ceased for a quarter of an hour; and, on a vaginal examination being made, the head was found to have receded between one or two inches. Uterine action appeared to return as the first effects of the drug wore off, and in the opinion of all present (Doctors Ireland and Mason, and a number of pupils) was again suspended on the renewal of the chloroform. I kept up its influence for three quarters of an hour, during which time the head made no advance. At the request of the gentlemen present, I ceased administering it. Soon after this powerful pains set in, and advanced the head upon the perineum. As she again entreated to be relieved from her suffering, I once more allowed her to inhale the chloroform, and at the same instant observed the head of the child to recede as before. My pupil, who was anxious to be relieved of his attendance, then requested me to withdraw the napkin, soon after which the expulsive pains returned, and the woman was delivered, about half-past nine, of a still-born male child, chord once round its neck. The usual resuscitating means were had recourse to, and finally crowned with success.

The uterus contracted as usual, and the placenta was removed from the vagina twenty minutes after.

WESTMINSTER MEDICAL SOCIETY.

Dr. Webster, President.

Dr. Ogier Ward read a paper on

THE TREATMENT OF ASIATIC CHOLERA IN THE STAGE OF COLLAPSE.

He confined his observations to the collapsed stage as being the most fatal, and, therefore, the best test for the utility of remedies; and in order that he might effect his purpose of ascertaining the most efficient remedies impartially, neglecting the results of his own experience, derived from nearly four hundred cases, he had investigated the numerous reports and returns to Government on the subject, and had thence selected those remedies which, from the statistics of the numbers cured by their use, or from the description of their direct effects, appeared to be most trustworthy; and he had the candour to state, that by this process he had been induced to regard with more favour certain remedies which a prejudice, derived from a limited experience, had led him to consider as worse than useless. In reply to those who thought no treatment of any service, he instanced the frightful mortality in India, Persia, and Russia, where little or no medical aid was procurable; and took occasion to congratulate the medical men of this country on the low rate of deaths (one-third) compared with the mortality in France or any country in Europe, which he attributed, under Providence, to their superior practical knowledge of disease in general. The idea of the nature of cholera that seemed most consistent with its symptoms and with the effects of treatment was, that it is the prolonged cold stages of a peculiar form of fever, presenting more analogies with continued than intermittent fever, the effect of a poisonous miasm, which, if very intense, destroys the patient, without the occurrence of any active symptoms, in a few hours; but in other cases induces a gradually increasing congestion of the internal venous system, which relieves itself by the effusion of serous fluid into the stomach and bowels, which is as speedily removed by the actions of vomiting and purging. The blood thus deprived of its serum becomes thick and black, and is deprived of its vital properties to such a degree, that, unable to imbibe oxygen in the lungs, it ceases to stimulate the heart, which organ is thus unable to propel the blood to the extremities or through the lungs. This is the stage of collapse, in which the patient is blue, cold, pulseless, and voiceless, and his features are shrunk to such a degree that his dearest and nearest relatives do not recognise him; and this is the most fatal stage and that least under the influence of remedies. Nevertheless, even under these deplorable circumstances, we must not relax our exertions; and the list of curative means employed with success proves that much may still be done for the relief of the patient. The most approved external remedies were, external heat, cold affusion, and counter-irritants. The author attempted to account for the favourable opinion of the application of cold in Persia, and of heat in Russia and the rest of the northern countries, partly by the concordance of such ideas with the ordinary feelings of the inhabitants of such different climates, and partly by the notion that in Persia, where the thermometer is above 98° in the sun, the patients, exhausted of their fluids by the disease, would be dried up and mummified by any attempt to keep up the temperature of the body by exposure to the sun's heat; whereas in Russia, &c., it was supposed, and probably with truth, that as cold is a direct sedative, its opposite, heat, was necessary to

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restore the vital powers. All the reports concur in the efficacy of cold affusion in inducing reaction; and its success appears to have been in proportion to the violence of the shock. Counter-irritants were successful only in connection with other remedies; but they deserve attention from their stimulating power, and their readiness of application. Bloodletting was useful in every stage in relieving the congestion and rousing the heart by removing the load that oppressed it. In the state of complete collapse salt-and-mustard emetics, to excite the system, followed by bleeding, was a favourable mode of treatment. The internal remedies most to be relied on in the stage of collapse may be classed under the heads of revulsives, stimulants, and specifics. The first class, besides emetics of salt and mustard, comprised tartar emetic and croton oil, and calomel in large doses. The effect of each was to check the vomiting and purging; but the three last were remarkable for their power of restoring the flow of bile, of a dark-green colour, when tartrate of antimony or croton oil had been used; and like blue ointment, when the calomel had been given. The action of all three is supposed by the author to be irritating to the mucous membrane of the stomach and bowels, of which it stops the secretion by changing the action of the part. The blood thus diverted from the membrane returns without loss into the portal system, and, by the secretion of fresh bile, previously pent up in the gall-bladder, is expelled, the spasm of the duct having been relaxed by the irritation of its orifice, produced by the tartrate of antimony, calomel, or croton oil. The blue colour of the bile when calomel was used may, perhaps, be explained by the decomposition of the salt by the alkali of the bile. From the number of returns in its favour, besides the extensive experience of the author in its use, he is disposed to place most reliance on the croton oil, as its action is simply irritant (many of the patients complaining that it made their throats sore when given in solution or suspension); whereas the tartar emetic is a direct sedative, and, hence, may be dangerous; and the author had given calomel most extensively in large doses without ever having seen such effects produced as those which he has mentioned above from the reports of others. Stimulants, after a fair trial, were almost universally condemned; and yet it is remarkable that M. Magendie had more success with his punch than any other of the Parisian physicians. His great rival Broussais was so unsuccessful that he entirely relinquished his care of cholera patients at Val de Grace. Opium, either in small doses as a stimulant, or in large ones as a sedative, was equally unfit to be relied upon. The last class—specifics—comprises calomel, with or without opium, cold water, salines, and quinine. Although the author never met with a single case of real cholera in which he could trace the recovery of the patient to the influence of calomel, nor ever observed that it produced any specific effect whatever, still, from the almost unanimous approval it has met with, and his own experience of its benefit in English cholera, he would strongly recommend it for future experiment, as being, at the least, perfectly harmless, though taken in enormous doses. He would also adopt the use of cold water *ad libitum*, upon the faith of the reports in its favour, though his own experience is decidedly opposed to it. Salines, on the other hand, when well diluted, have, besides a number of most favourable reports of their efficacy, this hypothesis in their support—viz., that they restore to the blood by their endosmosis through the coats of the vessels, if not by their being absorbed directly into the circulation, the saline matter removed by the serous evacuations; whereas, the water, if it be not rejected by vomiting, as in the author's experience, could scarcely be absorbed, the tendency of the venous system being to empty itself; nor, if it were absorbed, could it supply to the blood those saline elements of which it had been deprived. In the author's experience, the best mode, though a painful one, of arresting vomiting in all cases, is to keep the stomach empty; when, after a time, it will cease to suffer the action of vomiting, whatever that may be. From an attack of English cholera he suffered, and thus cured, the last efforts of which produced only bloody mucus, as well as from other similar results after emetics, the author believes that the stomach contracts itself during vomiting. Quinine, viewed in reference to the hypothesis of the intermittent nature of cholera, seems worthy of further trial than it has yet experienced. In conclusion, the treatment recommended by the author in the stage of collapse would be the following, and much in the same order as the remedies are stated:—Cold affusions; hot air; external counter-irritation, and frictions; venesection; mustard-and-salt emetics; cold water *ad libitum*, or Dr. Stevens's salines; calomel, and tartrate of antimony, alternately, in large doses; and, if all failed, croton oil.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Dec. 14; M. Begin in the Chair.

DISTRIBUTION OF PRIZES.

Academical prize, value £80—"On the Comparative Influence of Animal and Vegetable Diet on the Physical and Moral Constitution of Man." The prize was divided between Dr. Segond, Dr. Marchand, and M. Claval.

Portal prize, £90—"Analogies and Differences between Scrofula and Tubercular Disease." Dr. Labert. Honourable mention—Dr. Legrand.

Ward prize, £120—"Neuralgia." Dr. Valleix.

M. Dubois (of Amiens) then read the panegyric of his predecessor, M. Pariset.—The meeting adjourned at five o'clock P.M.

CONCOURS FOR THE CHAIR OF CLINICAL SURGERY, VACANT BY THE DEATH OF PROFESSOR AUG. BÉRARD.

The concours was opened on the 15th of Nov. The following gentlemen are candidates for the chair:—MM. Alequié, P. Boyer, Chassaignac, Laugier, Maisonneuve, Malgaigne, Michon, Robert, Vidal, and Sanson.

The first part of the competition consisted in a written question, for the composition of which five hours were granted. The subject was "The History of Strictures." Each paper was read in the amphitheatre, before the jury and a crowded audience. The first clinical "épreuve" was then instituted: it consists in a lecture of one hour, delivered in the amphitheatre of the faculty, immediately after examination of two patients chosen in the surgical wards of La Charité or the Hôtel Dieu, a quarter of an hour being allowed for the examination of each patient. But the public, not being admitted into the hospital during this first stage of the proceedings, remains ignorant of the correct diagnosis of the cases, and can only form an opinion of the general merits of the lectures. It also happens, on account of the short time granted for the explication of the two cases, that the candidate does not always find sufficient matter for a lecture of one hour's duration, and, to fill up the time, is compelled to make a more or less interesting disquisition on the malady, instead of a special history of the individual case. We have, further, heard very excellent lectures delivered upon an incorrect diagnosis, and reciprocally a correct and difficult diagnosis accompanying a lecture of very ordinary merits. Several candidates have already gone through this first clinical "épreuve," and, from the mere consideration of the concours itself, it is hitherto perfectly impossible to form any idea of its probable issue, although the initiated speak strongly of the predisposition of the jury in favour of one candidate.

D. M'Carthy, D.M.P.

Cholera.—A case of cholera, which terminated fatally, occurred on board the French steamer Pericles, on her passage from Smyrna to Malta; she was in consequence ordered to quit Malta, which she did on the 3rd inst.

THE MEDICAL TIMES.

SATURDAY, DECEMBER 25, 1847.

POOR-LAW CONVENTION.

The committee held its weekly meeting on Wednesday, at four o'clock, Dr. Hodgkin in the chair. Several letters were submitted to the committee, received from union surgeons, and it was announced that several contributions had been received. A considerable number of returns had been sent in to the committee in reply to the circular submitting certain queries to every union medical officer. A sub-committee, appointed to classify the returns, had met several times, and, with the assistance of Mr. Farr, agreed upon the form in which the different returns should be tabulated and prepared for further use. Much important information, placed at the service of the committee, is under the process of arrangement. The object of the committee in this respect will be much helped by poor-law medical officers losing no time in forwarding their returns. A very interesting discussion took place on the subject of a recent circular from the Sanitary Commissioners, asking from union surgeons an amount of information on professional matters requiring very much time and labour, with no promise or hope of remuneration. It was contended that the Sanitary Commissioners were bound either personally to acquire the information they required; or, if unable to do that, to employ persons to do it for them; or, thirdly, should remunerate the medical men on whose shoulders they had thrown the labour. It was finally resolved that a deputation should be appointed to wait on those gentlemen, with a view of making a representation on the subject.

The attempts at intimidation, supposed to be made by some boards of guardians, were also considered, and the result was the resolution advertised in another column. An opinion was expressed that, in the event of any petitions being sent by poor-law guardians to Parliament, in consequence of the Chesterfield circular, the medical officers of such unions should unite in a temperate counter-petition to be sent to Parliament at the same time. This plan had been acted upon in the Reigate Union at the time when some boards of guardians were petitioning Parliament against the introduction of "extras."

The committee adjourned to Wednesday, the 5th of January, 1848, when very important business will be brought before it.

"OPERATIVE" SURGERY.

With no wish to underrate the loss of Liston, we may yet state our belief, that it is not so serious an event as some have imagined. Decay and reproduction—loss and compensation—is the system of nature; and scarcely had that surgical sun set on one side, before a second luminary rose on another. If the *Times* of Dec. 17 announced the enclosure in the tomb of one "operator," the *Times* of Dec. 21 thus solaces us with the recorded advent of another:—

"[Advertisement.] — Operative Surgery. — Amputation at the shoulder-joint in a patient aged seventy-one, successfully performed under the influence of ether by Thomas Wakley, Esq., surgeon to the Royal Free Hospital. Also amputation of the arm in a man aged seventy-five, under the influence of ether, successfully performed by Thomas Wakley, Esq. Perfect reco-

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very of both patients. These cases exhibit the most extraordinary proofs of the safety and value of the use of ether vapour in operative surgery. The *Lancet* of Saturday last, Dec. 18, contains full reports of these highly interesting cases."

We fancy that here is an important discovery for which people in want of operations will be grateful. The "surgeon to the Royal Free Hospital" and his respected "governor" must have thought so too, for twice have they disinterestedly paid the *Times* a guinea for its publication, and twice in so philanthropic an aim have they submitted to have that honoured *name* included in the quack column which gives to daily notoriety Mr. Eisenberg's chiropodist operations on bishops, and Professor Holloway's miracles on gouty earls.

An advertisement appearing with such circumstances of deliberation, under such auspices, and carrying with it the imprimatur of the *magister morum* during years of the medical profession, comes before us under such a guise of scientific worth and professional authority, that it may well excuse from us more than the casual observation we ordinarily dedicate to professional advertisements of a quack or obscene character.

The document, thrown into its plain language, reads thus:—

"Liston being DEAD, and 'OPERATIVE SURGERY' being a good catchword, I, Thomas "Wakley, Esquire, surgeon to the Royal Free "Hospital, hereby advertise, with my father's "assistance, that I *successfully* performed an amputation at the shoulder-joint, in a patient aged "exactly seventy-one years, under the influence "of ether.

"*Also*, I have performed an amputation of the "arm in a man aged seventy-five, under the influence of ether.

"PERFECT RECOVERY OF BOTH PATIENTS!!!

"My modesty forbids my saying more of these "miracles of surgical skill, save that—

"THESE CASES EXHIBIT THE MOST EXTRAORDINARY (!!) PROOFS OF THE SAFETY AND "VALUE *of the use of ether vapour in operative* "SURGERY!!!!

"They are

"HIGHLY INTERESTING CASES!!!

"For fuller details see the *Lancet*, the chief "value of the number published a week ago being "that it contains

"These most extraordinary proofs"!!!

Without joining in the *naïve* wonder of the young gentleman (who underwent his surgical examination about a twelvemonth since) that two patients of his perfectly recovered, we may confess our admiration at the very original way in which he and his respectable father think it decorous and safe to advertise his professional performances. Let us fancy a barrister doing anything akin. Let us fancy him first inserting a full detail, in his own journal, of his doings in some obscure case, and then advertising in the public press the wonders achieved by certain "most extraordinary proofs" of his skill, referring for full details to his own book. Imagine an advertisement that "he, Mr. Nobody, of Pump-court, standing counsel to the Fudge Society, has, in the most extraordinary way, and with the most perfect success, in 'two highly interesting cases,' done all those brilliant things which made the late Sir W. Follett so much sought by clients, and the want of which is at this moment so severely felt by the public!—N.B. LARGE DAMAGES were '*perfectly recovered*' to both clients!!!"

Were a barrister to act after this useful, but rather original, fashion, his brethren would lose little time in sending him to Coventry; and his benchers, with the judges, would very early concur in the propriety of ejecting him from the confraternity.

How is it in the medical profession? Is the College of Surgeons without authority? Are the Courts Medical, of which we have heard something, to live only in hypothesis? or are we for the future to have it established as a rule of the profession that any of its members may get practice after any fashion he pleases, and that the principles of professional etiquette and gentlemanly decorum, which were supposed to distinguish the members of a liberally educated body like ours, are to be trampled under foot the first moment a sixpence may be got by doing it?

We see here, apart from the insignificance of the personal part of the question, an abuse of real and menacing magnitude; in which matters of deep professional import are at stake. The audacious innovation comes in a questionable form, and a more questionable quarter, it is true; but still in a form which has to some extent a professional character about it. To call it quackery in a very painful and debasing form is to understate the fact: to say whether it shall be tolerated, countenanced, and imitated, and become an integral part of the canon of medical practice, is beyond our power, till we see whether or not the profession, in some decided and unquestionable tone, pronounce a general and emphatic censure—a censure not less authoritative in its character than the offence of which it shall take cognizance.

CHOLERA AND QUARANTINE.

NOTWITHSTANDING the interest which has been excited in the minds of the public and of the profession, during the last few years, in reference to the cholera, it must be acknowledged that scientific investigations have done but little in advancing sound knowledge upon some most important points connected with the disease. At the present time the opinions of eminent individuals are greatly at variance, and, while this arises in some measure in consequence of difficulties inseparable from the subject, it must also be attributed to neglect, in not properly regarding the evidence given, and the observations recorded.

Cholera is a singular disease, and, though it has existed in India for centuries, it excited no particular attention till it broke out as a violent epidemic in 1817, when it seemed to acquire fresh power by which to extend its influence and to perpetuate its existence. The hope that its ravages would not be extended beyond the continent of India, or at least that they would never be experienced in the western hemisphere, proved soon to be vain: for the disease not only spread over the entire extent of Hindostan, but extended to China, appeared in Arabia, passed on through Persia and Syria, and then, bending northward, visited Georgia and Circassia; even the cold of a Russian climate was not sufficient to check its progress, though it appeared to have been produced and fostered by a tropical climate. It spread till it reached our own country, then passed across the Atlantic to the American continent and islands, and from thence it turned back towards Europe, visiting Spain, France, Rome, Sicily, some parts of Germany, and, finally, the banks of the Thames, where, according to Dr. Budd and Mr. Busk, the last victim was selected on board the Dreadnought Hospital Ship.

We noticed in a former article the peculiar behaviour which it manifested—how it passed the most lofty mountains, crossed oceans, traversed deserts, and bid defiance to all military cordons and quarantine establishments. This was the case with the epidemic which appeared on our shores in 1832. Since then Europe has been occasionally visited at intervals of some three or four years; and it has been noticed that at each return of the disease it had lost much of its severity, with, perhaps, but one exception—at Berlin, where it proved more fatal in 1837, though it continued for a shorter period than it did in 1830.

There is some degree of uncertainty when the epidemic which now threatens us began its course westward. It is a remarkable fact, however, that at the time it appeared at Teheran, after having been quiescent during the winter of 1845 and 1846, Kurrachee, near the north of the Indus, was visited in a most fearful manner by the pestilence, for in the course of a few days 8000 victims were destroyed. We observe here a great similarity to what occurred in the camp of the Marquis of Hastings in 1817, not long after the first outbreak of the great epidemic in the Delta of the Ganges; and the natural inference is, that a certain state of the atmosphere must have been the cause in each instance. The disease took a S.W. and a N.W. direction; not, however, always following the great lines of human traffic, but appearing at places far distant from the spot where it had been chiefly prevailing, then turning back upon towns and villages which had been spared for a time. It has been noticed by writers who have had opportunities of studying the history and progress of cholera, that it is often preceded and accompanied by dysentery, diarrhœa, or fever of a typhoid kind. Dr. Searle has recently published a work, in which he states the opinion, that these diseases frequently arise from one source, and are but modifications of each other. "In ordinary circumstances," he says, "the disease occurs under the united influence of heat and malaria, followed by the conspiring one of cold, or other concomitant circumstances — diarrhœa being its mildest and more prevalent form. Dysentery is another variety and the congestive typhus of Armstrong another—the latter being intrinsically the same disease, modified by climate and form, in which, perhaps, in its severest degree, it more frequently manifests itself in this country." Thus it happened in Persia: for some time before the outbreak of the cholera, dysentery, diarrhœa, and fever prevailed to a very great extent.

It is not for us here to enter into a particular account of the progress of the present epidemic, as the profession has from time to time been informed upon the subject; up to the present moment it has been steadily advancing through Europe; and the question, therefore, naturally arises, In what manner is it conveyed from one place to another? Dr. Copland and some others are firm believers in the doctrine of contagion—so much as to deny that cholera ever entered a place which had not held intercourse with another infected. Mr. Orton, however, who is of this number, says, "After examining into the evidence, we are forced to the conclusion, however at variance with the common laws of contagion, that in this disease, at least in India, the most intimate intercourse with the sick is not in general productive of more infection than the average quantity throughout the community." The majority of writers, by far, both Indian and European, are

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opposed to the doctrine of infection or contagion. Dr. Searle, who had considerable opportunities of studying the disease, having been in India for twenty years, and having been at Warsaw during the prevalence of the disease there, as well as having visited many cholera hospitals of Germany, says, upon the question whether cholera is infectious or not, "I can speak decidedly that it is not so;" and cites in confirmation of his views the freedom of the attendants at the hospital from disease; the experiments of the French physicians sent by their Government to investigate the malady; and the circumstance of its attacking in India men occupying the lower floor of a barrack, while those of the upper floor escaped—of its affecting the men sleeping on one side of a ship's deck, in the roads off Madras only, or one portion of a cantonment, or the inhabitants of one bank of a river, exclusively. The French commissioners referred to express themselves more opposed to contagion than in favour of it.

The majority of medical men attribute the production and propagation of this terrible disease to certain conditions of the atmosphere acting upon individuals previously disposed to disease by some peculiar state of the constitution. Dr. A. M. Bureaud Riofrey, in a work just published, entitled "Du Choléra," &c., has this remark:—"L'atmosphère contient dans son sein des millions de germes, ces germes se développent lorsqu'ils trouvent un terrain qui convient à leur nature, le germe cholérique existant, flotte imperceptible dans l'atmosphère et ne s'implante que sur les *constitutions débilitées*, sur celles chez lesquelles le pouvoir vital ou de réaction est affaibli." Dr. Gavin Milroy, in a pamphlet containing some excellent remarks on the cholera, observes:—"Another circumstance, utterly incompatible with the idea of infection playing the chief part in the diffusion of the cholera, is the sudden seizure of hundreds of persons in a place on one and the same day. How can any one seek to reconcile such an occurrence with the notion of the disease being communicated from one person to another, and of its proceeding, as it were, step by step, until it has overspread a space of several miles in circumference within twenty-four or thirty-six hours? Yet this most improbable opinion has actually been held and stoutly maintained, in connection, too, with the present argument, and as affording irrefragable evidence of there being a malarious condition of the atmosphere during the existence of epidemic cholera in a place. It may also be mentioned that almost all the inhabitants of a town or district often experience its morbific effects in some degree or another; just as we know to be so generally the case during the presence of influenza: very few persons escape it altogether. In the one instance there is a marked tendency to irritability of stomach, and to relaxation of the bowels, or to crampy twitchings in different parts of the body, these symptoms being especially apt to supervene upon any impropriety of diet; while, in the other, slight catarrh, headache, unusual lassitude and general debility, are pretty sure signs of the person having come within the influence of the miasmatic agency, whose power is always aggravated not a little by exposure to whatever is liable to produce common catarrh. Other diseases, too, which may happen to prevail in a place at the same time, very generally exhibit something of the character or impress of the predominant epidemic." Mr. Campbell, assistant-surgeon of the Horse Artillery, who had considerable opportunities of studying the disease, speaks very decidedly on this point—"That this disease is not infectious, but is caused by the direct application to the surface of a peculiar miasma, existing in particular strata of the atmosphere, has been fully proved by the history of its progress, as well as by the phenomena attending it."

The little good effected by quarantine and other preventive measures of a like nature go far to establish the doctrine that the principal sources of the disease exist in the atmosphere. The Russian Government in 1831 relinquished quarantine establishments, having found them utterly inadequate to effect the desired end. The Emperor of Austria acknowledged that he had committed an error in adopting what he denominated the vexatious and worse than useless cordon regulations against cholera. The Government of the United States of America, after having tried the effects of quarantine, abandoned it, some of the principal medical men of the republic having declared its inutility. In India, the only instance in which quarantines were tried, they failed. In Mahomedan countries, where harems are strictly and rigidly guarded, the inmates, in many instances, succumbed to the disease; and we are informed, upon the authority of Clot Bey, that 500 Arabs, encamped in the desert and preserving a strict seclusion, did not escape. Hence we perfectly agree with the Registrar-General when he says that "Internal regulations, and not quarantine and sanitary laws, are the safeguards of nations; and that a salubrious city in an epidemic, like a city built of stone in a conflagration, is exposed to danger and injury, but not to the same extent as the present cities of Europe, which are left without any adequate regulations for the health and security of their inhabitants."

Although quarantines and military cordons are but of doubtful utility, there are yet means within our power to arrest or mitigate the horrible Asiatic pestilence: not disinfectants, which can destroy the most filthy odours; not fumigations with the most energetic gases; but sanitary improvements in all our cities, towns, and villages. Streets, if narrow, let them be widened; sewers, if ill constructed, let them be renovated; dwellings. if badly ventilated, let them be freely supplied with air; water, if deficient, let there be a good supply; crowded burying-places, if in the midst of a dense population, let them be removed. These things, combined with a personal attention to health, will as effectually keep the cholera from our shores as the visitations of the plague to this metropolis have been stopped by the improvements made since the conflagration of 1688.

CORONERS AND MEDICAL WITNESSES. A FRIEND IN COURT.

A FORTNIGHT ago we directed the attention of our readers to the case of Mr. Synnot, surgeon, of Cadogan-place, who, on being summoned by Mr. Mills, the deputy-coroner for Middlesex, to attend an inquest held upon the body of a child, was refused the usual fee which the law grants to medical witnesses. The excuse made for not allowing the full sum to be paid was, that Mr. Synnot, being summoned only as an ORDINARY WITNESS, he was not entitled to professional remuneration. This gentleman, considering that he had been unjustly treated, summoned Mr. Mills for the amount, in the Bloomsbury County Court. The case was heard a short time ago, and the judge distinctly stated that the surgeon was entitled to the full sum allowed by the Medical Witnesses Act, though from a technical blunder he would be unable to recover it in that court, the action having been brought in "tort," as though a contract existed. As, however, the fee could be obtained by procuring a *mandamus*, the judge advised Mr. Mills to take the case in his own hands and pay the money. The hint was not lost on the deputy-coroner, who paid over to Mr. Synnot forthwith the full sum of £1. 1s.

This is a most important decision on behalf of the members of the medical profession, who are liable to be summoned before coroners' courts; and great praise is due to Mr. Synnot for the perseverance which he displayed, not only in asserting his own rights, but those of his professional brethren. Had the decision been in favour of the coroner it would have subjected medical men to many acts of oppression, there being but few who understand the nice distinction between an *ordinary* and an *extraordinary* summons; and coroners might in numerous instances have found means of easing the county rates, by procuring the service of medical witnesses for a mere trifle.

The conduct of Mr. Mills on this occasion was truly reprehensible, as he sent to a surgeon, acquainted with the cause of death, a summons which was supposed would free the coroner from the obligation of paying what an act of Parliament had distinctly authorized him to do. His opposition, we are told, was on the ground that Mr. Synnot had thrust himself forward as a witness, having, prior to the assembling of the jury, by permission of the friends of the deceased, opened the body and carried away those portions which alone could explain the cause of death. This he had a perfect right to do, as there was no authority to forbid him at the time he instituted the *post-mortem* examination. It is true the constable wished to make his word equally powerful with a declaration of law, and, because Mr. Synnot bowed to no such authority, Mr. Mills endeavoured to punish him by docking him of his fee. It is remarkable with what ease the Medical Witnesses Act is taken up and laid aside, to suit the views of the coroner: its provisons being respected when it allows him the power of refusing the guinea for an examination of the body, but set at nought when it commands him to pay a certain sum for *medical evidence*. As the opinions of the judge are of importance to the members of the medical profession, we transcribe them at length for their information. He said:—

"Mr. Mills's opposition was on the ground that the surgeon had thrust himself forward as a witness, having, prior to the assembling of the jury, by permission of the friends of the deceased, opened the body and carried away those portions which alone could explain the cause of death. The 6th and 7th of Will. IV. enacted that witnesses should be paid by the coroner under certain circumstances, and he contended that the plaintiff made a claim under circumstances not legal. The judge observed that the act of Victoria I., chap. 68, sec. 2, totally repealed the one defendant had referred to, as it expressly stated that, immediately an inquest terminated, all witnesses and other incidental expenses shall be paid by the coroner, who will be reimbursed by the justices at quarter sessions, the different sums allowed being stated therein, among which was medical fee, £1. 1s. Only the last Trinity Term, Lord Denman had tried a case heard on a *mandamus* against the justices of Caernarvon, who refused to allow a coroner for a medical witness, but whom, by

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the decision of his lordship, they would be compelled to pay. In fact, according to the act he quoted, they had no discretion in the matter, and he was of opinion that it was of no consequence which summons a medical man received, for if even he was in a room, and should unexpectedly be called upon to give evidence, he could substantiate his demand. It would be a very bad precedent to confirm the non-payment of a medical man summoned as a witness, and great difficulty would by so doing arise in getting such witnesses to attend inquests."

In consequence of this decision, medical men may now indulge in no fears as regards the relation of a summons to a fee: for whenever called upon to give evidence, in coroners courts, upon the cause of death, or to answer questions which involve medical knowledge, they are clearly entitled to the sum specified in the act, whatever the form of summons—be it *ordinary*, *medical*, or *verbal*.

FREE HOSPITAL QUACKERY.

[To the Editor of the Medical Times.]

SIR,—I beg earnestly and respectfully to direct your readers' attention to the following advertisement, which appears in the *Times* of to-day. I understand it also appeared in the *Times* of Tuesday last; and, considering that the *Lancet* was published on Saturday, there can be no doubt that the outrage is committed very thoughtfully and deliberately, and with a careful calculation of results:—

"OPERATIVE SURGERY.—Amputation at the shoulder-joint in a patient, aged 71, successfully performed under the influence of ether by Thomas Wakley, Esq., surgeon to the Royal Free Hospital; also amputation of the arm in a man, aged 75, under the influence of ether, successfully performed by Thomas Wakley, Esq.: perfect recovery of both patients. These cases exhibit the most extraordinary proofs of the safety and value of the use of ether vapour in operative surgery. The *Lancet* of Saturday last, Dec. 18, contains full reports of these highly interesting cases. Order of any bookseller in town or country."

Now, Sir, I have often felt dissatisfied with the quackish character of the *Lancet* advertisements, and now and then at the quackish way in which it purveys to the ignorance of the general readers—and my disgust was not a long while ago much excited by its mode of advertising for "*venereal*" readers—but these are small matters compared with such an advertisement as the one above! Everybody knows how the young man was bullied into the very extraordinary concern called an hospital, in Gray's-Inn-lane; and nobody much cares, considering its insignificance of twenty beds, who is, or is not, its surgeon. But I do think that the prostitution of a professional institution, and a professional journal, to the purposes of so painful a perpetration of quackery requires a very indignant expression of censure from every honest, right-thinking member of the profession. How can we have a profession—how be gentlemen—how exercise control over the unprincipled and the base—if such bold quackeries, so sanctioned and so authorized, are allowed to have a free and profitable currency?

Is there no *efficient* mode of teaching the person Wakley that the profession will not bear with impunity so daring an outrage on its respectability and honour?

The College of Surgeons is at once bound to see to this flagrant infraction of their by-laws; and every *gentleman* should hasten to record his protest against a precedent of fatal application.

I am, Sir, your obedient servant,

London, Dec. 23. AN OLD PRACTITIONER.

DR. BURROWS.

[To the Editor of the Medical Times.]

SIR,—I am gratified at the report in your journal of this day, that the worthy (? worthy the honour) representative of Finsbury has been seized with a sudden qualm, and that he is disposed to unburden his conscience and atone, so far as he can, for his numerous delinquencies by offering to those against whom he has sinned the most "abject apologies," expressive of the deepest contrition and the most sincere regret that his reckless pursuit of popularity and self-gratulation had betrayed him into the most unjustifiable falsehoods and the most wanton abuse. Repentance is the first step to mercy and forgiveness; and the first batch, exclusive of the late matter in the House of Commons, thus implored and propitiated, have been Doctors Dawson, Culverwell, and some others. It is to be hoped the same penitent will endeavour, by similar acts of contrition, to make his peace with Paris, Hawkins, Burrows, &c. By the by, in reference to Dr. Burrows, something is due to justice and the outraged majesty of the law. How stands the case? The proprietor of the *Lancet* proposes to Parliament a registration bill, the effect of which would be to reduce the medical profession to the lowest ebb; by which all those persons who, before entering into practice, preferred attaining that maturity of age and judgment which would render them callous to, and proof against, the bullying, swaggering, and abuse of a "most corrupt, licentious, and scurrilous journal," would be driven from its ranks. By this means the profession would be entirely at its mercy, and "led by the nose" as best suited its purpose. As a preliminary to these laudable views, a committee was moved for and granted. The mover or promoter was not appointed a member, but, notwithstanding, most indelicately intruded—nay, became a sort of special pleader, to cross-examine the witnesses and extort evidence for future purposes. This was partly the case with Dr. Burrows. This gentleman's evidence was not only published, but, as he asserts, grossly distorted and perverted. These misrepresentations were intended to subject him to the greatest obloquy. He was held forth in terms of the most unjustifiable and unfounded comments, and subjected to every kind of abuse.

Dr. Burrows was summoned to give evidence before a committee of the House of Commons, a constitutional tribunal, and empowered to enforce the truth. Let us suppose him, awed by the majesty of journalism, consulting, not the truth, or at least not the honest dictates of his own conviction, but the whims and objects, however extravagant, of the imperious overseer. In what estimation would such evidence be held—what the consequences to the witness—were such unwarrantable dereliction brought home to him? Dr. Burrows was, legally as well as morally, bound to speak the truth, and criminally responsible for any evasion or deviation from the dictates of his own moral convictions, however unpalatable the truth might prove to others. No one can know better than the Hon. M.P. for Finsbury the nature of the oath propounded to a witness—"The evidence, &c., shall be the truth, the whole truth, and nothing but the truth." If a witness then give false evidence, independent of the moral stigma, the law has attached a severe penalty.

It may be useful to the coroner for Middlesex to be informed that truth—the *verum*—is twofold, logical and ethical: the former when the judgment of the mind is in accordance with actual fact; in the latter the moral conviction is at variance with the real truth. Consequently the same proposition might be logically true and ethically false, and what might be a moral perjury in the Finsbury M.P. may be with Dr. Burrows a legal truth.

But a witness before a parliamentary committee is, it would seem, in rather an awkward predicament: if he give false evidence the law will punish him for perjury; but if he speak the truth he is liable to be denounced, somewhat like an Irish landlord, by some high priest of parliamentary "thuggism."

It may be matter for deliberate consideration whether these denunciations, or rather immolations, upon the unhallowed altars of wanton and perverted criticism be not aggravated violations of the law. There can be no doubt, I apprehend, but that a court of law—the Queen's Bench, for instance—would upon application protect a witness from unjust aspersions or corrupt animadversions, despite, too, of even the high sanction and authority of the "junior," who is as yet about to teach the "senior" or "chief" coroner of England the law—at least "crowner's quest law." I believe, then, if Dr. Burrow's evidence had been before the Queen's Bench, that court would not have refused a rule for a criminal information against the author of unfounded aspersions upon him for speaking as a witness what he believed the truth. How far the Queen's Bench would feel disposed to interfere in the case of a witness in similar circumstances before a parliamentary committee, is a question upon which I will not enter. But, be this as it may, there is another tribunal which, in justice to itself, and in vindication of its own privileges, ought seriously to take up the matter. This tribunal is the House of Commons itself. The publishing of any of the proceedings within the House (and this, no doubt, extends to committees), unless by its own accredited agent, is in itself a breach of privilege, and punishable as such. If a new committee is, or has been, appointed, unless the House do something to protect the evidence from malevolent misrepresentation and unjust and abusive comment, it is to be hoped that the first witness called upon will direct attention to the awkward predicament in which he feels himself placed, and respectfully decline giving evidence unless assured of special protection from the clumsy thrusts of a bungling operator with a foul and venomous instrument.

I am, Sir, your obedient servant.

Dec. 18. VINDEX.

P.S.—It certainly behoves Dr. Burrows and the College of Physicians to bring this matter before either the Queen's Bench or the House of Commons. The system of intimidating witnesses from corrupt motives and for base purposes should be put down. In case of the bill passing, who would be the registrar-general, and what the salary? The "cormorant"—"I thank thee, Jew"—would ope "his ponderous and marble jaws," not "to cast up again," but to gorge the emoluments and patronage of an additional place. Hence this "still harping on" the "Registration Bill."

[To the Editor of the Medical Times.]

"Crescit indulgens sibi dirus hydrops,
Nec sitim pellit, nisi *causa* morbi
Fugerit venis, et aquosus albo corpore languor."
HORATII *Carm.*, lib. ii., carm. 2.

MR. EDITOR,—As an original subscriber to your most admirable periodical, I trust I shall be pardoned if I trespass upon your courtesy by requesting a small space in your next number for the following remarks relative to the present movement in poor-law medical affairs.

I have been an attentive observer of the proceedings of the Poor-law Medical Convention, and have carefully read and studied the correspondence (as published in your journal) which preceded the formation of that society, and still accompanies its proceedings. I take a deep interest in the present movement, and therefore hope that both you, Mr. Editor, and my professional brethren will excuse me when I state that I differ, *toto cœlo*, both from your opinion and theirs. I have now before me the circular issued by the committee of the Convention; in my reply to it I have stated, and I here reiterate it to be my firm persuasion, that the Convention has begun at the wrong end in calling upon Government to do for us that which we are perfectly capable of doing and ought to do for ourselves. Our own jealousies, our own rivalries, and want of good feeling towards each other, constitute the *fons et origo mali*, with which Government has about as much to do as the Goodwin Sands with Tenterden Steeple. We may drink for ever and not quench our thirst unless the pestilent cause of the disease be driven from our veins. No profession besides the medical works for nothing; in no other profession is there such a total lack of *esprit du corps*, in no other profession is there such illiberal, dishonourable, and disgraceful competition, as unfortunately taints ours. Are boards of guardians, then, to be blamed if to save the ratepayers' money they take advantage of this state of things? In a moral sense they may be amenable to censure, but, politically, they are right. In these days of free trade the golden axiom appears to be, "Buy at the cheapest market;" and, if the market price of medical labour and skill be low, assuredly we have no right to expect a protecting duty from a free-trade Government, nor to anticipate that the buyer will exert his energies to raise the price of the vender's goods. But, perhaps, I may be told that trade, commerce, and merchandise are totally different things from a profession, and not to be governed by the same laws; I may be told that a quantity of wheat, and the skill of a scientific surgeon, should not be measured in the same peck; I may be told that the man who contracts with a board to supply a given quantity of Manchester fustian, and the gentleman who undertakes the fearful responsibility of attending the sick in a population of ten thousand souls, ought not to be classified together. "*Hæc non sunt inter se comparanda.*" All this may be objected to me, and, in

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sooth, I should agree with the objector, yet still we know that this is the case; and here comes the knotty point, how is a state of things admitted on all hands to be radically wrong—how is this state of things to be set right?

Permit me, Mr. Editor, through you to ask my brother practitioners, especially my brethren in *union* practice, the following questions:—If a tradesman be bidden by a customer less for an article than its prime cost, what does he do? If a schoolmaster be requested to receive a boy into his boarding-school for less money than the boy's food will cost, what does *he* do? If a barrister be desired to plead for a less fee than a guinea, what does *he* do? I believe the replies are obvious; and if the same practice were put in force in medicine, as would inevitably be adopted in the above cases, then Mr. Garlick would have no cause to complain that he was a positive loser by his Halifax contract. Here, then, is the remedy. Let every member of the Convention pledge himself to his brother members, let every member of the profession pledge himself to his brethren, not to undertake poor-law practice at its present disgraceful price. Let us not trouble the Government (which has now a vast deal more on its hands than it can well manage) about our affairs, but let us ourselves adjust them. The public, I mean the board of guardians public, chooses to classify us with tradesmen; well, be it so, but then let us take advantage of this classification. The ironmasters at their quarterly meetings settle the price of iron, and no ironmaster is ever known to undersell his brother ironmaster. Let, then, a medical convention at its meetings settle the price of medical skill, labour, and anxiety. Let all be invited, entreated, urgently pressed to join this Convention, and although there may be a mean, dirty, black sheep here and there, yet do I firmly believe that not only the majority but the great mass of the profession would respond to the call. Let a day be fixed on which every poor-law medical officer shall engage to throw up his district, and every medical practitioner in the kingdom engage not to accept it at any other than the salary fixed by the Convention. Away with the trumpery nonsense about strikes for wages, such a step would not be a strike for wages. Surgeons, physicians, apothecaries of England! if you imagine this, you have misunderstood your vocation. He who labours for his employer, that employer gaining a profit on his servant's labour in conjunction with his own capital, is in a totally different position from the medical practitioner, whose labour is not combined with any man's capital, neither does any man besides himself gain a money profit by it. The fact is, that really the medical man's capital, his stock-in-trade, is his skill, and he individually or collectively has as much right to fix the price at which he will sell it as a draper has individually to fix a price on his calicoes, or the ironmasters collectively to determine the selling price of their iron.

Sir, it is notorious that English governments have always neglected, despised, abused, ill treated, and hated our profession: need I point to their abandonment or destruction of all bills which have been introduced for its improvement? Need I point to the low position which medicine occupies in the army and navy? Need I point to their throttling of the Apothecaries' Act of 1815? Need I point to the recent disgraceful charter of the College of Surgeons, which attempts to exalt the few by depressing the many? Where is the name, where the honour, where the station, where the rank, where the emolument which any English Government has ever awarded to any medical man? Where, I ask? and Echo answers, where?

Let us, then, expect nothing from the Government, but be true to ourselves.

"Hereditary bondsmen, know ye not
Who would be free themselves must strike the blow."

I have the honour to be, Mr. Editor, your faithful and obliged servant,

CHAS. BRADDON,
Medical Officer in the Upton-on-Severn Union.
Upton-on-Severn, Dec. 2.

EARLY STRUGGLES OF SANITARY REFORM; OR, PURSUIT OF PUBLIC HEALTH UNDER DIFFICULTIES.

[To the Editor of the Medical Times.]

SIR,—I think you will agree with me that the following extract from Sir John Barrow's "Travels in China" is not without interest at the present juncture.

After describing the process of economizing and applying liquid manure (as alluded to by your correspondent, Mr. Thomas, in one of your recent numbers), and telling us, that as a consequence of this practice, and from the want of drainage in the large and densely populated cities of the Celestial Empire, "a disgusting odour remains about the houses all day long, from the fermentation of the heterogeneous mixtures kept above ground," the learned traveller proceeds as follows:—

"The medical gentlemen of China are not quite so ingenious as we are told the faculty in Madrid were about the middle of the last century, when the inhabitants were directed, by royal proclamation, to build proper places of retirement to their houses, instead of emptying their nocturnal machines out of the windows into the streets. The inhabitants took it into their heads to consider this order as a great affront, and a direct violation of the rights of man; but the doctors were the most strenuous opposers of the measure, having, no doubt, cogent reasons for wishing the continuance of the practice. They assured the inhabitants that if human excrement was no longer to be accumulated in the streets, to attract the putrescent particles floating in the air," ("There is nothing new under the sun!" what is this but the science of homœopathy applied to public hygiene?), "they would find their way into the human body, and a pestilential sickness would be the inevitable consequence."—"Travels in China," page 99.

Where the worthy baronet got hold of this choice *morceau* about the faculty of Madrid I do not know, but I think you will agree with me that the story is too good to be lost.

I am, Sir, your obedient servant,
Dec. 18. ECHO VERITATIS.

THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

[To the Editor of the Medical Times.]

MR. EDITOR,—In running my eye over your "answers to correspondents" just now, I caught sight of one to which, I trust, I shall be authority enough to cause you to give the broadest qualification in your next number. This one relates to the Faculty of Physicians and Surgeons of Glasgow. During the last summer I visited Glasgow, and amongst its institutions the one in question. I am not sure that I did not at first find myself on the banks of the Clyde with a little prejudice in my mind not altogether in favour of the good old city, for, say as we may, we English have a good dash of the bigot in our constitutions, and a wonderful faculty for retaining early impressions, however vaguely formed. Here, however, my national weakness soon sustained a grateful inflexion, that is to say, became one—if it is proper so to speak—on the other side. It would be presumptuous in me to dilate upon the merits of the instructive or licensing corporations, but it is a simple act of justice to as high-principled and worthy gentlemen as it has ever been my good fortune to meet, to declare my thorough conviction as much of the learning of one set of institutions as of the honour of the other; and an instance fully testing the latter came under my own immediate observation in connection with the Faculty of Physicians and Surgeons. It may be, as you say, that the latter institution "does not stand high as a licensing professional body," but, foppery apart, there may be a place or two nearer home that need not blush to find it put upon equality.

Mr. Editor, your obedient servant,
WILLIAM HENRY BROWN, M.D., F.L.S.
Belgrave-house, Dec. 18.

GERMAN HOSPITAL, DALSTON.

[FROM A CORRESPONDENT.]

We have refrained from alluding to the late differences in connection with this institution until we were in possession of correct information on the subject, and we do so now the more readily, as we consider the course pursued by Dr. Freund to have been highly proper and praiseworthy. The facts of the case are simply these:—Dr. Freund, the directing physician of the hospital, having repeatedly requested, in committee and in his Annual Medical Report, dated Oct. 15, 1846, "that proper and efficient accommodation might be provided for seeing the out-patients, to no purpose, notwithstanding the medical officers had, at the request of the committee, met specially at the hospital, towards the end of July last, to report as to the necessary alterations, at length determined that the patients' comfort should no longer be sacrificed by the negligence and delay of the committee. Therefore, on Tuesday, the 21st Sept., finding the patients exposed to the wind and violent rain—for they had no other waiting-room than the very small one (about 5 or 6 ft. wide by 15 or 16 long) devoted to their examination—I then resolved on seeing them in the board-room, where the patients would be more comfortable, and the violation of decorum, hitherto inevitable, avoided." This gave great offence to one or two members of the committee, and when Dr. Freund was about to enter the room on the following Saturday, he was told by the assistant secretary, in the presence of some of the paid servants of the institution, that he had been instructed by the visiting committee (which we find has no existence) "to lock the door, and forbid his entering the room." Of course, as the only responsible officer of the hospital, Dr. Freund was much irritated at so gross an insult, and said, that any one who could give such instructions must be a most ungentlemanly and impudent fellow. Mr. Phillipps, a member of the committee, who, it appears, exercises an unwarrantable authority in the management of the affairs of the institution, shortly afterwards made his appearance, and Dr. Freund immediately asked him for an explanation; but he declined giving any answer until the doctor repeated his opinion of the conduct that had been pursued against him; when he at once said, that he "had done it, that he was master of the house, and that he would kick the doctor's nose and wring it." Dr. Freund naturally became much exasperated at this, and told him that he was an impertinent fellow, and that if he repeated such language he would turn him out of the hospital. A few members of the committee met on the following Tuesday at the hospital, and immediately suspended Dr. Freund, declaring him unfit for the office of directing physician, and this without giving him an opportunity of refuting the charges that had been brought against him by Mr. Phillipps, although he was on duty at the hospital that very day.

On receiving a copy of this resolution, which was signed by the Rev. Dr. Kuper, as chairman, Dr. Freund wrote to this gentleman, and requested that an apology might be made to him, and that the resolution thus hastily passed might be withdrawn, at the same time stating that he should still continue to discharge his duties at the hospital. No attention was paid to this letter. Dr. Freund, therefore, notwithstanding his suspension, which, according to the rules of the hospital, appears to have been illegal, went to the hospital as usual on the following Saturday, but was again insulted by being told by the house-surgeon that he had orders to prevent his seeing the patients, and to give instructions to the dispenser, the nurses, and the porter, not to obey him. There was also a deputation of the committee, consisting of Messrs. D. H. Gardeche, A. Fisher, and Wm. Kuper, at the hospital to prevent his entering the wards. A general meeting of the governors was afterwards called for Oct. 14, to decide on his retention or dismissal, which at once refused to sanction the conduct of the committee, whereupon the Rev. Dr. Kuper tendered in their resignation, and they, with the illustrious chairman, the Duke of Cambridge, left the room. Mr. Alderman Sidney, M.P., one of the vice-presidents, remained behind, and was called to the chair, when a resolution was passed unanimously reinstating Dr. Freund in his office. This, however, was of no avail, for so inveterate was the feeling of some few members of the committee, that, when the doctor again presented himself at the hospital on the following Saturday, Mr. Preller, the sub-treasurer, met him, and said he protested against his seeing the patients, "in the name of the committee and in his own name, as owner of the house." Dr. Freund immediately presented a written document with which he had provided himself, signed by Mr. Alderman Sidney, proving his reinstatement, but Mr. Preller refused to acknowledge it. Dr. Freund

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therefore left the hospital. The ex-committee then actually called another general meeting for the 28th Oct., to appoint a court of inquiry—a course previously proposed by Dr. Freund to the deputation above alluded to, but not agreed to by them—to investigate the validity of the statement made in their report read at the last meeting, and actually printed and distributed among the governors before the meeting took place. The court of inquiry was appointed, of Lord Ashley, M.P., Sir R. H. Inglis, M.P., B. B. Cabbell, Esq., M.P., Chevalier Hebeler (Prussian consul), and Samuel Gurney, Esq., jun., on the part of the ex-committee; and Alderman Sidney, M.P., J. W. Oppenheim, Esq., J. Brown, Esq., J. W. Moule, Esq., and J. Stohwasser, Esq.: these ten to choose an eleventh.

This court of inquiry met at the London Tavern on the 17th of November, and, after investigating the matter, came to the unanimous conclusion that—"the conversation and conduct of Dr. Freund took place when he was in a state of great excitement, and that such excitement was in part produced by his having received, at the moment of his arrival at the hospital, a *viva voce* intimation that he was not to occupy, for the purposes of his duties in the hospital, a room which he had claimed as a temporary accommodation for him in the discharge thereof, while such intimation is, nevertheless, alleged to have been the act of the committee of visitors, held two days before—viz., on the 23rd September—the omission of a written and immediate notice of such intimation to Dr. Freund, directing physician of the hospital, being likely to be specially painful to him, who had, from the commencement of the institution, rendered great and gratuitous services in aid of its foundation and maintenance. (Signed) Ashley, Chairman."

A third meeting of the governors was called for the 27th of November, to receive this report, when, strange to say, Mr. Galdecheus commenced by asking Dr. Freund "if he meant to resign or not?" To this the doctor repled "No," and further stated that two days before he had been sent for by Mr. Alderman Sidney, who informed him that Chevalier Hebeler had called on him (Alderman Sidney), on the part of his Excellency Chevalier Bunsen, and offered him handsome testimonials, and something still more substantial, if he would resign. The doctor declined accepting such paltry, mean offers, as he considered he would be degrading himself and the profession to which he belongs if he did so.

This meeting ended in a resolution being put and carried, to the effect that "Dr. Freund's usefulness to the hospital since its foundation, his unremitting attention to the duties of directing physician, entitle him to the continued confidence of the governors of the institution."

Thus has terminated a most unfortunate and, so far as the committee are concerned, disgraceful affair. Dr. Freund, we think, has done great service to the profession: he has taught a lesson that ought not to be forgotten, that, if medical men wish to be respected by the public and by public bodies, they must first show that they respect themselves, and that they belong to a profession the honour and dignity of which it is their duty to uphold.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Sir Benjamin Collins Brodie, Bart., F.R.S., Examined.)

(Continued from page 186.)

THE REGISTRATION BILL.—A system of registration of all medical practitioners throughout England and Wales I think would be a very good thing; it would be popular with the profession, and rather useful for the public. I have looked at the scheme of registration contemplated by the bill of this session. I do not think that any proper registration of the existing practitioners under that bill could be carried into effect. Under what is there proposed, persons would be registered who ought not to be registered, and persons would not be registered who ought to be registered. Thus it allows any persons to be registered who have degrees or licences from any constituted bodies. I believe that most persons in the profession think that a person who has a licence from the Faculty of Physicians and Surgeons in Glasgow ought not to be registered as qualified to practise over the whole kingdom. Then, again, the University of St. Andrew's, even now, and the University of Abedeen till very lately, have been in the habit of granting degrees upon mere examination; nay, within a very short space of time they were sold, without the candidates even appearing at the University. Many of those degrees have been granted to persons quite unqualified to practise. Dr. ——, a quack doctor, had a degree from St. Andrew's or Aberdeen; and I have no doubt that even now there are many persons having those degrees in this country, and who would be registered under this bill, but who would not be at all fit to be registered. On the other hand, some of the best surgeons in the country, practising in the provinces, are not members of the College of Surgeons. There are two gentlemen in the Bristol Hospital; they are consulted by everybody, and they are very eminent surgeons, but they would be left out from this register. There are also a great many persons practising as surgeon-apothecaries, and who are eminent practitioners, in different parts of the country; I have met with many such myself, who have not a licence from Apothecaries' Hall; who, from some technical difficulty, cannot get that licence, but who are adopted by the public, and are popular in the respective districts in which they reside, and well qualified to practise; those gentlemen would be left out. The Apothecaries' Company do not venture to prosecute them, but still they would be left out of the register. It appears to me that no system of registration can be at all just or proper in the first instance, unless those to whom the registration is confided have certain discretionary powers granted to them. In considering the medical bills introduced by the Secretary of State three or four years ago, this difficulty presented itself, and there it was intended to confide the registration to the Council of Health, composed of several persons, some in the profession and some out of it; but under the present bill, if there be any discretion at all, it must be given to a single person in each country, and it would be too great a power to give to any individual. It would have involved the Council of Health in a good deal of trouble, for they would have been accused inevitably of partiality and prejudice on many occasions, however just they might have been; but the clamour against individuals to whom such a power was confided would be such that no individual could stand against it. A register, including the different classes of the profession as now subdivided, and also embracing an alphabetical list, with the grade in the profession appended to each name, in addition to the residence, under competent responsible authority, I think would be very useful.

CONTROL OF THE SECRETARY OF STATE.—The register contemplated in this bill is in conjunction with a licensing power in different parts of the United Kingdom, controlled by the Secretary of State, with inspectors under his authority in each part of the United Kingdom. I think no Secretary of State could be competent to undertake such a duty; he must be assisted by other persons. The schemes of education of the different licensing bodies are to be submitted to the Queen in Council; but the difference is only in words; it would, I imagine, be, in fact, submitted to the Secretary of State or the President of the Council; but taking the President of the Council and the Secretary of State together, if they alone are to be the controlling authority, that would not appear to me to be satisfactory. I think it would be impossible for any but medical men, and those acquainted with the details of medical education, to form a correct judgment on the subject. I have referred to the bills which Sir James Graham introduced in 1845, in all of which a council of health was contemplated; the institution of such a body on the part of the State I think would be very useful in various ways. I think that council should be composed of a certain number of persons in different branches of the profession, and certain other persons not belonging to the profession, persons of influence in the world; and I think the whole of them should be appointed by the Crown. If so composed that the supreme control over the curricula of the different licensing bodies, by means of assessors, with a view to ascertain that the standard was strictly and equally observed by all, it might and would be desirable that it should be intrusted to that body. In addition to those high functions, I think that that would be very useful; and it would ensure certain persons paying great attention to questions which now very much interest the public, that the Council of Health be consulted, being at the seat of Government, upon sanitary questions, and matters affecting the health of the public. I think the establishment of a single registrar for each kingdom is a very great defect; and that the establishment of the Council of Health for the whole kingdom would be an excellent measure. I am not quite certain that, with regard to equality of right to practise in every part of the United Kingdom, I rightly understand the bill; but it appears to me that the person who has passed his examination at Apothecaries' Hall is capable of filling any situation whatever, either of apothecary, physician, or surgeon—so it seems to me, but it may not be so intended.

RECIPROCITY OF PRIVILEGE.—I think care should be taken in this way, that those educated in Scotland should be as well educated as those educated in England; and that those educated in England should be as well educated as those educated in Scotland; and that then the practice in the two countries should be common to both. I think the Scotch education in general is fully equal to that of the great mass of practitioners here; I think the education of physicians is not quite equal to that of the physicans here, for this reason especially, that they require no preliminary education. I have referred to three bodies in Scotland: the Faculty of Physicians and Surgeons in Glasgow, who have the power of licensing for four counties in Scotland; the University of St. Andrew's, without a hospital or medical school; and the University of Aberdeen, with comparatively small institutions of that kind. With respect to Aberdeen I believe that they have a good hospital and a pretty good school. There is no licence for surgeons at Aberdeen; I think all those bodies might license for the whole kingdom, under a proper supervision of the Council of Health, and that they should have power to do it.

CORPORATE MORALITY.—I think all the bodies here and there too would require a little looking after. Supervision in all cases would be necessary. Their interest would lead them, if an equal standard were fixed, practically to examine parties below that standard, with a view of attracting; but that will, I hope, be counteracted by higher motives. It would be the practice with some, I have no doubt, as at this very moment in St. Andrew's they give degrees upon examination without any particular course of study.

THE COLLEGE OF PHYSICIANS.—I am aware that the College of Physicians have applied for a new charter. I think their present charter a most absurd one, especially with respect to the election of the president and the body of elects. We obtained, under our new charter, a more summary power of expulsion from our body for *mala praxis* than there was formerly. In my opinion this is salutary; I do not believe we have yet had an opportunity of acting upon it, and it will be often very difficult to act upon it, for it will be difficult to get evidence of *mala praxis*.

PENALTIES AGAINST ILLEGAL PRACTITIONERS.—It is said that by the law as it now exists there are no operative checks upon the practice of per-

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sons coming from Scotland, or coming from Ireland, whose attainments are not sufficiently tested, or upon persons practising in England without being members either of the College of Surgeons or the Society of Apothecaries. My own opinion is against any restrictions as to private practice, but that is not the feeling of the profession, who generally differ from me upon the subject. My own opinion is, that the profession would do better if no one could be prosecuted merely for engaging in private practice, and that the only restriction should be that persons who had not licences should not be eligible for public institutions or public appointments. I would endeavour to effect the great object to be secured for the public, of obtaining the best acquirements, not by penalties for the want of them, but by encouraging the possession of them. I think that in the same way as individuals are always better from having to depend upon their own conduct and character, and not being propped up by others, so the profession would be better from having to depend upon its own character, and not being protected by penalties. I remember the bills of 1845. They proceed upon that principle of holding out inducements, and not inflicting penalties, and I entirely approved of them. In that respect those bills effected what I conceive to be politic, and many of the profession think the same; but the great mass differ from me in opinion. They would desire the infliction of severe penalties for practising without due legal authority. I would not recommend that course.

Penal Clauses of the Apothecaries' Act.—The apothecaries have a very strict monopoly; that is, their act of Parliament gives them a very strict monopoly, but they cannot act upon the act of Parliament; they prosecute a few persons, but the great number of persons who practise without their licence are not prosecuted. Penalties, I may say, do not interfere with the practice of quacks or really uneducated persons at all. There will always be a tendency to employ quacks, because all must die in their turn. The medical profession can never do all that is required of them to do, and those who cannot be relieved by the regular craft will of course naturally look to others. While the demand for empirical practice is so general, I suspect that the proceeding by penalty to check it will be ineffectual. It is very desirable to stop it, if possible, but I do not think it can be done. Looking to the state of the profession generally, under the law as it now exists, and considering the bill for the alteration of the law as proposed in the present session, I would rather leave the profession as it is.

Free Trade in Medicine.—At the same time I am of opinion that the law regulating the medical profession is very susceptible of improvement in some respects. I think it a very great hardship that no one should be admitted to general practice here who has not been authorized by the Apothecaries' Society; I think it a hardship that those who are educated in Scotland or Ireland, who, from some technicality, cannot be examined at Apothecaries' Hall, should not be permitted to practise in England; but I think that the object may be attained by some other and better means than by that bill. Any man may practise as a surgeon in England without subjecting himself to a penalty; and I do not think surgery has at all suffered from that cause. I think surgery has more advanced than any other part of the profession, though there is no legal penalty upon parties practising as surgeons without a licence. I think that the profession might, without much harm, be thrown open in the same manner as surgery is; but the view which I take is this: when a person gets an opinion about his own case, he has a right to consult anybody, and anybody should have a right to attend him; but where one person has to appoint another to attend a third person, he should be required to appoint somebody who has a regular licence to practise. Therein consists the difference between the appointment by public bodies and the Government, and the choice of an individual, with respect to his own medical attendant; and that would extend even to schools and workhouses and ships. Wherever third parties appoint medical advisers, there the law should step in and obtain some security with respect to the competency of the party so to be appointed. That is the line that I would draw. Each individual should, according to law, exercise his own free choice, but public bodies should be compelled by law to employ only persons whose skill had been tested by some public authority. I think that would be a very good system. I do not say that it would be practicable to introduce it with the present feelings of the profession; but I very much suspect that if you wait twenty years the profession generally will be of the same opinion with myself. The bill now under consideration will establish a single faculty, and is in direct violation of the principle for which I would contend.

College Library and Museum.—The College of Surgeons has expended, within my memory, large sums in increasing its museum and adding to its library. The museum is more than doubled, and the library is a superior library; I suppose it is the best medical and scientific library in the kingdom. At the same time, it is no more than the college were bound to do, and undertook to do; they were placed at the head of the profession; they had funds for the purpose, and they have performed this duty very honestly, but it was no more than they ought to have done.

Scotch and Irish Medical Practitioners. With respect to practitioners from Ireland or Scotland who come to practise surgery in England, I think that, in the event of their having the same qualification in one part of the kingdom as in another, if they removed from one part to another, it would be well that they should be admitted *ad eundem* to the college in the part of the kingdom in which they resided. It would not be just to admit them *ad eundem* without some contribution on their part to the fund which maintains this valuable library and museum; but a moderate contribution would be sufficient. I think it would be better that they should be admitted with the view of registration into our college. It would be convenient for registration at all events; but I would not compel them to be examined if they had been previously examined. The infliction of a penalty would not be at variance with my principle; if they were not admitted it would not affect their private practice; it would be only necessary to qualify them to hold public situations; and upon persons holding public situations without a licence I would inflict a penalty. I have not considered that particular point a great deal, that a surgeon duly licensed at Edinburgh should, if he came to practise here, be eligible to fill a public situation, as the surgeon of a hospital in England, unless he were a member of the College of Surgeons in England; but it appears to me that it would be, on the whole, desirable that if he came to practise in England he should become a member of the College of Surgeons, on the payment of a small contribution; which would be only a fair contribution, considering the privileges to which he would be entitled on becoming a member.

Registrars.—I believe that I endeavoured to point out that you could not have a fair system of registration in the first instance without giving a good deal of discretion to those to whom the registration was confided, such an amount of discretionary power as you could not venture to give to an individual; that, even if it was a large body, they would be liable to charges of prejudice and partiality; but that, if it were an individual, he could not stand against the clamour that would be raised. That objection applies to the intrusting the discretion to a single person; but I mean to say, also, that a registrar for England, and a registar for Scotland, and a registrar for Ireland, would be an evil, because each would act separately. I think it necessary that the registration should be on a uniform principle, under some central authority.

Registration.—The form of registration put in by Dr. Hawkins, the registrar of the College of Physicians, is formed on the model of the naval list. I think that would be very good; some names would be found in two lists. Of those who are qualified by a licence to practise you may make a register without any difficulty, because the College of Physicians print their list, and the College of Surgeons print their list, and the Society of Apothecaries print their list, so that you have only to send these three lists to the printer and have it published in two days; but that would not include all who ought to be included, because there are a great many Edinburgh physicians, and physicians with foreign degrees, practising in the country, who are not properly and legally physicians, but who are very good physicians, accepted by the country as physicians, and who ought not to have the power of practising taken away from them, but they would not be included in the list of the College of Physicians; so again there are several good surgeons not belonging to the College of Surgeons who would not be included in their list. I do not consider it desirable to pass a general measure for the registration of medical men for the whole country.

University Education.—I do not think it undesirable that surgeons should be educated at English universities if they could enter upon the study of their profession at the age of twenty. Dr. Buckland, the dean of Westminster, sent his son by my express advice to the university; but all that I really mean is, that it is desirable that they should get a good education. Dr. Buckland's son intends to enter the profession as a surgeon, and he is about to take his degree at Oxford. All I mean to say is, that it is desirable that they should obtain a good education; where they obtain it I do not care; they may obtain a very good education though they are not sent to the universities.

Supervision of Education.—I think that the supervision of medical education and of sanitary regulations might be entrusted to one body. The higher eminent medical men from Ireland and Scotland would have to be in London only occasionally. My notion is, that there would be Scotch and Irish committees; that they would act separately in Ireland and Scotland, the concurrence of the whole of the three bodies, however, being required for some purposes. In that way I think we could secure local action and a united body; the matter was very well considered formerly, and the Scotch and Irish saw no difficulty in it.

Druggists' Practice.—The tendency of the present improved medical education is to secure to the whole country a class of men whose education has been expensive, and the effect of that is to drive the poor man to the chemist's shop for advice as well as for medicine; but I have already stated that it is not desirable to put any legislative check upon that. I think it desirable that chemists should be required to prove that they understand pharmacy; but if you were to require of chemists a medical education, you would institute another order of practitioners. I think that it is an evil that must be left to cure itself, legislation cannot reach it; but I repeat that these are not the opinions of the profession.

Faculty of Physicians and Surgeons of Glasgow.—It is the general opinion of the profession that the persons who had received the diplomas of the Faculty of Physicians and Surgeons of Glasgow are not properly qualified. I know nothing of it of my own knowledge, but I speak the general opinion of the profession. I did know something of the constitution of that body and of the curriculum enforced there. I only mentioned it by way of illustration. But I have no personal knowledge of it. There is a hospital attached to the Medical School at Glasgow, and a museum. Medical students at Glasgow have very good means of studying. The museum belongs not to the Faculty of Physicians and Surgeons of Glasgow, but to the college.

Oxford and Cambridge Degrees. — Very little test is required by the English universities of Oxford and Cambridge. The fact is that Oxford and Cambridge men are all educated in

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London; London is their medical school. They have a medical school, but I do not believe that any students trust altogether to those medical schools. They grant degrees, and I think it is quite proper, for the degree is a proof of a good general education, and at the same time of their having acquired some knowledge of their profession; but the principal advantage of the Cambridge and Oxford degree is, that it is a proof of their having had a good education. I think that in a place like Glasgow, where they have not only a good general education, but the addition of a museum and a library, they would be highly qualified to grant degrees; and I think it is also right that they should require the same attainment as is required of a physician here. I believe they have a very good school; still I do not think the schools are to be compared with the London schools, on account of the greater number of hospitals, which are also here of larger size, and the greater competition. I believe the degrees of Oxford and Cambridge are granted now upon medical examination, but I do not know the details. I do not know whether the examiners are competent examiners; I very likely might be incorrect. I have seen the diplomas and the degrees granted at Oxford and Cambridge. The medical professors there are all known, and I do not doubt that they are parties competent to examine upon medical subjects. I have not seen the diplomas of the Faculty of Physicians and Surgeons in Glasgow; they give a licence to practise only in four counties, known to the profession generally. The names of the examiners who grant those licences that I saw formerly, were not known to the profession generally.

Country Practitioners.—In connection with the supply of the wants of the poor in country districts, I must say that I think, on the whole, they get very good medical advice in the country. I go very often into the country to see patients, and I am very much struck with the general good sense and knowledge of the country practitioners; they are thrown very much upon their own resources, and are compelled to use their wits, and for the most part know a good deal upon the subjects in which they are engaged. Those who are members of the College of Surgeons first may practise as members, and many who have become members become fellows afterwards. During that interval their practice goes on; but the greater part of the best educated men at no time begin practice before the age of twenty-five.

Objections against Penalties. — I would not put a penalty on private practice; but I would put a penalty on public practice without a licence. There is more difficulty in an individual selecting a competent medical man than in members of a public institution doing so. But if the Government publish a list of qualified persons, and any person says, "I will not take a person out of this list, but I will go to somebody else," it is his own concern, and I do not think that you should interfere with it. The same rule should not hold with respect to public institutions, because, in the first place, I think it is unjust to prevent my consulting anybody I please. It is not equally unjust to prevent a public institution doing so. I may go and fling my own money into the streets, but I must not fling the money of a public institution into the streets. An individual is very often a bad judge in his own case, as he is in a great many other matters. A surgeon himself very often prescribes very badly for himself. An individual must be in a great measure an imperfect judge of the capacity of his own medical adviser, but then he may take the Government list and look for a proper person, if there be a register. I think it is not the duty of the State to think for individuals on all occasions. I may employ a bad architect, and may be very foolish for doing so, but the State does not come and say, "You shall employ only my architect." I think that the medical profession ought to be left to depend on its own character. I draw a distinction between an individual and a public institution, thus—I think I have a right to do what I like with my own person, but, if I have any power of appointing a person to attend you, I do not think I have a right to send my quack doctor for that purpose. I should think it unfair to restrain me in my own person from consulting a homœopathist. If Sir James Graham were colonel of a regiment of guards, and by force introduced a homœopathist into the hospital of that regiment of guards, I think that he would deserve to be transported. Supposing we were so unfortunate as to have a dispute upon matters of property, it would be unjust to prevent our agreeing upon an arbitrator who might not be a barrister, to settle the matter between us; but there is no objection to the Legislature saying that persons appointed as judges to the local courts shall be barristers of a certain number of years' standing. We have the power of choosing any person that we please to act as solicitor for certain purposes. The case of the solicitor is confirmatory of my view of the matter; anybody may act as a solicitor in many respects, but he cannot go into a public court as a solicitor. Any person may draw your lease, but in a court of justice you must have a regular solicitor to act for you. A person is not suffered to go into court, or to prepare a public document for you, without being a regular lawyer. But in private you are at liberty, upon legal points, to consult whom you please. I may call in my tailor to draw my will for me, I must take the consequence of doing so, but the law does not prevent it; and many bad wills have been drawn in consequence. If I had a lawsuit I might send out my servants to examine the witnesses; but no person who has not undergone a regular examination is admitted to come into court, and act there as my solicitor; and that confirms what I say, that the cases are parallel.

Present State of Medical Education.—I believe I said the science of surgery has much improved of late years. I think that the science of medicine has improved very much too, but I there spoke of the improvement in the science of surgery. I said that I was not aware that the education of the great mass of practitioners had been much improved. I think the great mischief at present is the cramming for the examination at Apothecaries' Hall, and the fault, if there be any, is with the Legislature, I suppose. I was confining my remarks to general practitioners especially. What I meant to say, and what I believe I did say, was, that what is required of general practitioners is much greater than formerly; but I do not think that the improvement has gone on in the same degree, on account of the circumstances, with which I am sure you must be acquainted, which make it necessary for the candidates to be crammed for the examination at Apothecaries' Hall. I was a teacher in anatomy for some few years before the Apothecaries' Act was passed, and I must say that I never saw a more industrious set of young men, or young men who were more disposed to perfect themselves, than the students then were; and though not so much was required of them, yet I think they acquired as much useful knowledge. I think our examination refers to matters which the college consider to be the most useful in the exercise of the professional functions of a surgeon.

Crammers Again.—I think that a vast deal of the time of the candidates is lost in their being crammed. The whole of those who are admitted to practise now are required to come up to a higher scale of examination; but I think that those who did study formerly improved themselves quite as much as the students improve themselves now. A great many, however, practised without any study; there is, therefore, an improvement in that respect. The cramming system, I suppose, has always existed all over the world, more or less; but I think that to the extent it now prevails it is quite modern. I believe that it applies to the College of Surgeons as well as Apothecaries' Hall to a certain extent, but not to as great an extent. I am not aware that cramming occupies a short time; I believe it occupies a considerable time. Mr. Harrison, the treasurer of Guy's Hospital, who has studied the subject very much, tells me that it takes away the best men in their third year; that is, when he has a young man whom he wants to raise in the school, he is taken away to be crammed in the third year. Six months is almost the whole period of study in a session. It is one winter session. The evil lies in this: that in consequence of a young man knowing that he can be crammed in three months, he neglects the education which would otherwise be necessary for the examination that he has to undergo; that partly by the cramming, and partly by the neglect of study connected with the cramming, he loses his time. I do not mean to say that all the time is lost in the process of cramming, but partly in the neglect of study before the cramming. He knows that he cannot pass his examination at Apothecaries' Hall without being crammed; the best student cannot pass his examination without being crammed; and a young man says, "If I am to be crammed, there is no occasion for my working so hard previously." The examinations should be conducted by persons who either are or have been public teachers. I do not conceive that, as a general rule, any other persons can be competent.

(To be continued.)

CENTRAL CRIMINAL COURT, Dec. 15,

OLD COURT.

[Before Mr. Baron Rolfe and Mr. Justice Wightman.]

William Newton Allnutt, aged twelve years, a boy of diminutive appearance, was placed at the bar, and arraigned upon an indictment charging him with the crime of wilful murder, in having unlawfully mixed a large quantity of arsenic with sugar with the intent that Samuel Nelme should take the same, and that having done so he became mortally sick and distempered, and died.

During the trial the prisoner was seated in the dock with his face buried in his hands, and apparently absorbed in grief.

Mr. Ryland conducted the prosecution, and, in addressing the jury, said, that the very extraordinary and important case which he was about to lay before them would, he was sure, receive their most serious attention, and he begged them to be guided solely by the sworn testimony which would that day be adduced before them. The learned counsel then proceeded briefly to detail the circumstances under which the charge was preferred, and the following evidence was then adduced:—

Maria Bucker, who had lived as a servant in the family of the deceased, at Grove-street, Hackney, deposed that on the Sunday before the death of Mr. Nelme, the prisoner asked witness if she did not think his grandfather would go off suddenly?

Mr. Toulmin, surgeon, deposed that he attended the patient thrice on Wednesday, Oct. 27. Neither in the treatment of the disease nor on opening of the body did he observe anything suspicious in the case. Deceased vomited, complained of pain in the bowels, and was much purged. The contents of the stomach were put by for examination, and on the 1st of November witness was sent for by Mrs. Nelme, from whom he received some arrowroot and pounded sugar; he attempted to dissolve a portion of the latter in water, and gave the remainder to Dr. Letheby, who discovered in it white arsenic. Until witness heard of the existence of poison in the sugar and in the stomach of the deceased, he fancied death had resulted from natural causes. He had attended the prisoner for scrofulous abscesses, which, if suppressed externally, might affect the brain, and therefore the intellect.

Dr. Letheby proved the analysis by himself of the contents of the stomach, intestines, and a portion of the liver, as well as the sugar and arrowroot received from the last witness. He employed the usual tests, modified by his own experience, and detected a considerable quantity of arsenic in the stomach of deceased, and a trace of it

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in the brain. In four ounces of the sugar he found half an ounce of white arsenic. Witness believed that the quantity of white arsenic found in the body of deceased was not less than four grains; the arsenic in the liver had been there, he should say, a week; that in the intestines he believed was taken shortly before death. No doubt the arsenic discovered in the brain and liver had been taken into the system at a much earlier period than that which was found in the intestines; such is witness's opinion, at least. It would not have been his opinion if the deceased had been in health up to a very recent period before his death. If the arsenic had been administered medicinally, it would not have accumulated in the intestines as it did; under such circumstances it generally passes off immediately.

Mrs. S. Nelme, widow of deceased, stated that her husband was at the time of death in his seventy-fourth year, and up to a few days before his decease was in the enjoyment of good health. He first complained of illness on the Friday before he died; his family thought he had a slight cold. On the next Tuesday he first complained of sickness. A basin containing pounded sugar was usually placed on the table after dinner, and deceased always used sugar from that basin with fruit, a fact which the prisoner knew; the latter had access to the basin. The sugar was almost exclusively used by deceased. Witness did put some of it into some arrowroot which she took on the Monday, and was very ill afterwards.

Mrs. Allnutt, the mother of the prisoner, said she knew that her father was in the habit of having arsenic in the house, which he kept to poison rats with, and the prisoner had seen it used for that purpose. One day, a week before her father died, the boy asked her what arsenic was like, and she told him it was like flour. Her father generally used a good deal of sugar with his fruit. Witness made him some gruel on Sunday night, and sweetened it with this sugar; she also partook of the same gruel, and was dreadfully sick for three days, and very ill for a fortnight.

Cross-examined by Mr. Ballantine: The boy's father was subject to epileptic fits, and died completely mad at thirty-seven years of age. Witness was in great trouble at the time of the birth of the prisoner. When eighteen months old, prisoner fell upon a ploughshare, and it was at first thought he was dead. He had given her great trouble by his misconduct, and she had frequently remonstrated with him, but her remonstrances did not appear to create any impression upon him, and he used to tell her that he did not feel that he was doing wrong. In January last he had a fall upon the ice, and since then his conduct had been much worse than before. He was brought home after the fall, and he was very pale, and his eyes looked vacant and bewildered, and she was quite struck with his appearance. He used frequently to complain of illness, and from his appearance there was no doubt that he suffered a great deal. When she complained of his conduct on some occasions he would tell her that some one seemed to say to him in his head, "Do it—do it; you will never be found out." He said this after her father's death, and when she complained of his having taken a watch. The prisoner was in every respect quite different to her other child, and he had given her great trouble on account of his bad conduct, and also on account of his health.

Dr. Letheby was recalled, and, in answer to a question from the court, said that walking in the sleep was an indication of a disordered state of the brain. It might be occasioned by some organic cause, or from some disordered state of the stomach; and the same observations, he said, would apply to talking in sleep. A violent blow upon the head might also have the effect of tending to disorder the brain.

An inspector of police was then called, to show that the prisoner was given into his custody.

By Mr. Ballantine: The prisoner was given in charge for stealing a watch, and he said, "Pray, forgive me; I was tempted to do it." I asked him who had tempted him, and he replied, "It was no person, but a voice which said, 'Do it, do it; you will not be found out.'"

Mr. Ryland said, he should now propose to read the letter written by the prisoner to his mother.

Mr. Ballantine said, he should object to the letter being given in evidence, as it appeared by the evidence the letter was written after the prisoner had been visited by the ordinary of the prison, and the prisoner in his letter referred to that interview in terms which would render it extremely doubtful whether such an inducement was not held out to him to make the subsequent statement as would render it in law inadmissible in evidence.

Baron Rolfe said, the letter must at all events be read up to that portion of it where the objection would arise.

The letter was as follows:—

"My dearest Mother,—As you cannot come to see me, I hope you will write to me, and tell me what I ought to do to get forgiveness for what I have done, for I know that I have sinned against God, and deserve to be sent into hell. Mr. Davis preached a beautiful sermon on Sunday, and after service time he told me that, if I did not confess what I have done, God would not forgive me, and every one was sure I had done it, and he told me I had better confess it to you, and he told me just what you have told me, that if God was to strike me dead, where would my soul go to."

Mr. Ballantine here interposed and said, it occurred to him that the rev. ordinary ought to be called as a witness, in order to ascertain whether such an inducement had been held out to the prisoner to make the statement as would render it inadmissible.

The Rev. Mr. Davis was sworn, and said, I am the chaplain of the gaol of Newgate. On Sunday, Nov. 21, the prisoner heard me preach twice, once in the morning and again in the afternoon. I gave him some general instructions with regard to his religious exercises, and no doubt I told him that he could not expect forgiveness from God unless he confessed his sins.

Mr. Ballantine: Are you sure that the prisoner understood that you alluded to the confession as to be made to God?

Mr. Davis: I took particular care to impress that upon his mind; I certainly did not tell him that I believed he had done it, or that it would be better for him to confess to his mother; neither did I ask him where he expected his soul would go to if he were to be struck dead, and his statement that I did so is entirely the imagination of his own brain. In point of fact it is an entire invention.

Mr. Ballantine admitted that after this evidence he could not urge his objection to the production of the letter.

Mr. Streight then read the remainder of the letter:—

"I now confess that I have done what I am accused of. How I got the poison was, that on the 20th of October grandfather went to his desk for the key of the winecellar to get some wine up, and to look over his accounts, and whilst he was gone I took the poison out, and emptied out some of it into another paper, and put the rest back, and then after dinner I put it in the sugar-basin, and why I did it was, I had made grandfather angry with something I had done, and he knocked me down in the passage, and my head went up against the table, which hurt it very much, and he said the next time I did it he would almost kill me."

Mr. M'Murdo, the surgeon of the gaol of Newgate, was then examined, and he said, that he had seen and conversed with the prisoner almost daily since he had been in the gaol, and he never observed anything in his conduct to induce him to believe that he was not of sound mind, or incapable of distinguishing between right and wrong.

This closed the case for the prosecution.

Mr. Ballantine then addressed the jury for the prisoner, and said, that in the first place, he should contend that the evidence was not sufficient to justify the jury in finding a child, twelve years of age, guilty of the horrible crime with which he was charged, and that the letter which he had written ought not to have any weight on their minds, because it was quite clear that, although the rev. ordinary of the gaol might not in any way have exceeded his duty, yet it was exceedingly probable that a child like the prisoner might have misunderstood the effect of his observations, and have been induced to make such a statement in the hope of escaping punishment. The learned counsel then proceeded at some length to comment upon the circumstances of the case, and argued that the whole conduct of the prisoner, even if they should come to the conclusion that he was guilty of committing the act of poisoning his grandfather, showed that he was not in such a state of mind as to be accountable for his actions, and said he should produce testimony which would strengthen that impression, and, he had no doubt, would induce the jury to return a verdict to that effect.

Mr. E. H. Payne deposed, that he was of the medical profession; he had attended the prisoner medically, and knew that he suffered from scrofula; and from the knowledge he had acquired respecting him, and what he had heard connected with this case, he was of opinion that at the time he committed the act he was partially insane, and incapable of distinguishing between right and wrong.

Cross examined: Had not seen the prisoner for several months until lately. At that time he came to his house on a visit, and then he did not consider him partially insane.

Mr. Croucher, surgeon to the Berks county gaol, said, he attended the prisoner when he was eighteen months old for the injury he received from falling on the ploughshare. It was a very severe injury, and calculated to affect his brain.

Dr. Densbury said, he was a physician, and resided at Clapton. The prisoner was brought to him by his mother several times during the months of March, April, and May, of the present year. The prisoner was suffering from indigestion and scrofula in a marked degree. He was told at that time that the prisoner was in the habit of walking in his sleep, and also shrieking while asleep; and from his knowledge of the state of his health, and all the other circumstances of the case, he was of opinion that when this matter occurred the prisoner was not in a sound state of mind.

By Mr. Ryland: In my opinion he was in an early stage of insanity, which affected his moral sentiments and interfered with his notions of right and wrong, but which did not yet affect his intellect in any marked degree.

Mr. Ryland: Do you mean us to understand that he might have poisoned his grandfather and not be aware that he had done it, or that it was a wrong act?

Witness: I think he might have committed the act, and yet only have known it by hearsay.

Mr. Ryland: What do you mean, Sir, by that expression?

Witness: I mean he might not know it until he was told he had done it. I think it is possible he might be aware that he was poisoning some one, but yet not be able to control his actions, and that he had not the moral sense of distinguishing between right and wrong so as to make him responsible for his actions.

Dr. Connolly, the physician to the Hanwell Lunatic Asylum, said, that, from the evidence he had heard on this case, he was of opinion that the prisoner was imperfectly organized, and he should use the term which was now generally used and understood by medical writers, that he was of unsound mind. He should say that his brain was diseased, and he considered that as he advanced in life his insanity would become more apparent; but he was of opinion that he would exhibit it more by a deranged conduct than a derangement of intellect.

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Mr. Baron Rolfe then proceeded to sum up the case to the jury, and he said it was one of a very important character, not only as regarded the nature of the charge and the consequences that might result to the prisoner, but also with regard to the defence that had been set up, which was one that, when it rested upon slight grounds, if juries did not put a check to, might be attended with very disastrous results to society. After alluding to the facts adduced in support of the charge, the learned judge said, that if they should be satisfied that it was the hand of the prisoner which occasioned the death of the deceased, they would next consider the important question with regard to the state of mind of the prisoner at the time that act was committed; and it was his duty to tell them, that the law required the party accused to produce satisfactory evidence that at the time the act was perpetrated he was not in such a state of mind as to be able to distinguish between right and wrong. Now, the question for them to decide was, whether they had such evidence in the present case. He did not for a moment desire to disparage the evidence of scientific men, but he must tell the jury, that all they were required to do was to listen attentively to such evidence, and they were not bound to pay a slavish obedience to it, but might reject it if they felt that it did not accord with their own common sense and experience. The witnesses called for the defence had described the prisoner as acting from uncontrollable impulse, and they had made other statements, of the value of which it would be for the jury to decide; but he must say that it was his opinion that such evidence ought to be scanned by juries with very great jealousy and suspicion, because it might tend to the perfect justification of every crime that was committed. What was the meaning of not being able to resist moral influence? Every crime was committed under an influence of such a description, and the object of the law was to compel persons to control these influences; and if it was made an excuse for a person who had committed a crime, that he had been goaded to it by some impulse which medical men might choose to say he could not control, he must observe that such a doctrine would be fraught with very great danger to the interests of society.

The jury retired at half-past five o'clock and returned into court in a quarter of an hour, when they gave a verdict of "Guilty," but at the same time earnestly recommended the prisoner to mercy on account of his tender age.

The prisoner upon hearing the verdict became dreadfully agitated, and it was necessary for one of the turnkeys to support him while the learned judges were conferring upon the judgment to be pronounced.

Mr. Baron Rolfe, after a short interval, addressed the prisoner, and said, that after a very full and attentive consideration of his case, the jury had come to the conclusion, and he rejoiced that they had done so, that he was guilty of the horrible crime laid to his charge. Let him not be misunderstood as to the reason why he rejoiced at their coming to so painful a decision. The reason he rejoiced was, that the jury had not shrunk from the discharge of a duty which men of weaker minds might have recoiled from, and that they had not returned a verdict which they felt their consciences would not sanction. The jury had treated the defence of insanity that had been set up in his behalf as trifling with their judgment—they felt that he knew but too well that the act he committed was one that would send his grandfather, to whom he owed existence, to the grave. An endeavour was first made to show that his understanding had not arrived at sufficient maturity to make him responsible, and then the more captivating defence, the attempt to establish his insanity, was made, in order to induce the jury to swerve from the strict path of duty. This was a defence which was very frequently made, and which was too often successful, and he rejoiced that the jury had thrown to the winds the idle sophistry by which the defence was sought to be made out on the present occasion. They were, however, satisfied that he had knowingly sent his aged grandfather to his account, and had, therefore, not hesitated to declare that he was guilty of the crime of wilful murder. They had accompanied that verdict by a recommendation to mercy, which was one in cases of murder that, except in the present instance, he had never felt himself justified in paying any attention to. In this case, however, he would give effect to that recommendation, and taking into consideration the youth of the prisoner, and his want of experience, he should feel himself warranted in recommending that his life should be spared. At present sentence of death must be recorded, but he would take care that the recommendation of the jury and his own should be laid at the foot of the throne, where alone the power of mercy existed. He must, however, understand that, if any remission of the sentence was granted, it would not be from any belief that he was not in a sound state of mind, but solely for the reasons that had been stated; and he must expect that, if his life should be spared, to pass the whole of the remainder of it in ignominy and disgrace.

The prisoner was then removed from the bar.

THE LATE ALDERMAN DAVIS.

The melancholy duty devolves upon us of recording the death of one of the most valuable and most respected of our neighbours—Mr. Alderman Davis. He expired at his residence at Wrekenton, on Monday week last, in the fifty-fourth year of his age—not only a victim to the prevailing fever, but a self-sacrifice to the duty, to him the most pleasing of all, of alleviating the distresses and promoting the comforts of his fellow-creatures.

No passage, in short, of Mr. Davis's honourable and useful career could shed a stronger lustre on his character, or render more imperishable the memory of his good deeds, than the concluding chapter of his life. The innate and expansive charity of his soul led him to the deathbed of others and laid him on his own. With the stricter duties of his profession he united, during his attendance on the Fever Hospital established in his locality by the Gateshead guardians, all the assiduities and attentions of which the warmest friend and neighbour could be susceptible. No hour was unseasonable, no length of time an obstacle to him. The breathings of gratitude could not quicken, nor could the whispers of dispraise retard, his footsteps. His path, he felt, though dangerous, was not crooked; and he resolved to tread it though it might terminate in the grave.

The establishment of the Fever Hospital in the vicinity of Mr. Davis's residence, so far from being regarded by that gentleman as a nuisance or complained of as an intrusion, received his approbation and support. Turning neither to the right nor to the left, he only looked forward to the opportunity it presented of prospective good. The purer air of his own more elevated locality, in his eyes, was so evidently the birthright alike of poor and rich, that to deny its blessings to the former would be to violate the injunctions and repudiate the beneficence of Heaven. And the principle he professed he practised. His time, his talent, his life, he placed at the disposal of the poor. The timid and the selfish might shun the abode of the helpless, but in his ears their cry ever sounded as a command. For some weeks he laboured in his glorious vocation, and at last sank peacefully to rest, thus championing the fearlessness and consistency of his life by an act of holiest martyrdom at its close.

But it is not as an able and indefatigable and benevolent practitioner alone that Mr. Davis will be long remembered by the thousands who, during a period of upwards of thirty years, have been witnesses of his zeal and recipients of his assistance. His domestic virtues require no record here: the sorrows of his family and the sympathy of their friends, far beyond the power of any pen of ours, testify and embalm them. As a useful citizen, however, as an active and upright magistrate—as one who has filled with honour and credit the highest civic office to which the community in which he lived could elevate him—his name will be associated with the municipal history of this borough, and associated with it on its every page. Long will his exertions in favour of every good and in resistance to every evil measure be engraven on the hearts of those who have enjoyed the happiness of his co-operation. In the town council, on the bench, in the hospital, he was actuated by one and the same spirit—ever seeking the advancement of good by the diminution of evil. Justice itself, in his view, was but another name for mercy. Every act of his magisterial life was in perfect accordance with the charities which he engrafted on his profession and the affections with which he sanctified his home.

On no questions was Mr. Davis, at the council board, more urgent and energetic than on those in connection with sanitary reform. The very unobtrusiveness with which he laid his admonitions and his warnings before the council added to their weight, and to the universal respect with which their author was regarded. His lamented death will cause them to be remembered—deeply we are sure—and we trust usefully. The most grateful tribute which his colleagues could offer to his memory would be to act upon his suggestions, and combat the foe by which he himself has been subdued, with the armour he has so often and so earnestly recommended. Would that any words of ours could hasten the sanitary movements of our municipal representatives! Were such a result probable, we would address them thus:—"One of the noblest and ablest of your body has died in the execution of his duty: may yours be the happier, although not more glorious, lot of living to witness the fruits of his advice, through your instrumentality, ripening on his tomb."—*Gateshead Observer.*

THE LATE WILLIAM DALRYMPLE,

Surgeon, of Norwich, was born in 1772. At an early age he was sent to the Grammar School at Aylsham; whence he was removed to the Free School, Norwich, and became a favourite pupil of Dr. Parr, together with Dr. Maltby, the present Bishop of Durham. It is worthy of remark, as affording a strong proof of Mr. Dalrymple's early talents, and his subsequent industry in cultivating them, that notwithstanding he was, in accordance with the then custom of requiring medical apprenticeships to extend to seven years, obliged to leave school at the early age of fourteen, he yet had attained such a proficiency in classical reading, and so correct a taste and ardent love for its beauties, that, amidst all the urgent and various occupations and anxieties of his succeeding life, he found the greatest relief to his toils in recurring to his favourite authors.

Mr. Dalrymple was apprenticed in London, to Messrs. Devaynes and Hingeston, the Court apothecaries of that day, and his surgical studies were pursued at the then united hospitals of St. Thomas and Guy, under those eminent men, the elder Cline and Sir Astley Cooper; from the former, whose name and memory he venerated to his latest day, he received numerous marks of kindness; and with the latter he maintained an uninterrupted friendship throughout his distinguished life. On his return to Norwich in 1793, he opened a surgery in his father's house, and there for some year's had to struggle against the violence and injustice of the then dominant party, who strove to arrest his progress, for advocating the principles of civil and religious polity. In 1813, Mr. Dalrymple attracted the attention of the medical profession by the successful performance of the very difficult operation of placing a ligature upon the common carotid artery. It is believed that Mr. Dalrymple was the first operator who succeeded in tying the vessel below the division, an operation of much greater intricacy and difficulty

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than that of tying the external branch. The patient had been rejected at the hospital as incurable; and it is worthy of remark that she narrowly escaped instant death from the hands of the ignorant and effete practitioner, whom party spirit had placed in the institution, to the exclusion of Mr. Dalrymple, the said functionary being about to plunge his lancet into the aneurism, mistaking it for a common abscess. Mr. Cline, Sir Astley Cooper, and other surgeons came down to Norwich, to see and examine the patient when she was convalescent. Mr. Dalrymple was excluded from office in the Norfolk and Norwich Hospital, till the last month of the year 1812, when he was forty years of age, and, as Johnson said of himself, "was known, and did not want it." He was then, however, unanimously elected to the assistant-surgeoncy, and two years afterwards to the surgeoncy vacated by the late Dr. Rigby. His career in that institution was marked by industry, skill, kindness, and success, which have never been surpassed. In lithotomy, that branch of surgery for which the Norfolk and Norwich Hospital has been more particularly celebrated, his average exceeded that of any former operator, nor was he less successful in other branches of the healing art. His talents and acquirements were now acknowledged by appointments to the office of surgeon to Doughty's and St. Helen's Hospitals; the Bethel, and the County Asylum for Lunatics; and difficult midwifery in the city practice. His private practice had considerably increased, and on the death of Mr. Martineau, in 1829, he might justly be considered as "princeps et facile princeps" of provincial surgery. The incessant call for exertion, which a widely extended practice necessarily induced, told, however, very sensibly upon a constitution originally feeble, and he was at different periods compelled to absent himself from his home and his professional duties, in order to regain health and strength to perform them. A high gratification it must have been to him, to witness the interest taken in his behalf, and the cordial satisfaction evinced by his friends and patients when he returned to his labours. In his seventy-first year he found himself compelled, from declining health, to abandon the profession to which he was so warmly attached, and which he had pursued for fifty years with so much advantage to his fellow-creatures. He accordingly tendered the resignation of his office in the Norfolk and Norwich Hospital, and was requested to continue as honorary consulting surgeon.

Mr. Dalrymple, from the very commencement to the latest period of his practice, was engaged in anatomical and pathological researches, the result of which was the formation of a very valuable collection of preparations; and this, with the most praiseworthy generosity, he presented to the Norfolk and Norwich Hospital, on his retirement. This noble gift was suitably acknowledged,

Mr. Dalrymple was married to Miss Marianne Bertram in July, 1799, who, with six sons and three daughters, survives him. He died in London on Dec. 5, and was buried at Highgate Cemetery on Dec. 11.

GOSSIP OF THE WEEK.

War-office, Dec. 17.—4th Foot: Surgeon Thomas Galbraith Logan, M.D., from the 53rd Foot, to be Surg., vice Dartnell, who exchanges. 53rd Foot: Surg. Nelson Dartnell, from the 4th Foot, to be Surg., vice Logan, who exchanges. 76th Foot: George Anderson Wilkinson, gent., to be Assist.-Surg., vice Wallace, deceased.—Hospital-Staff: Frederick Augustus Kingdon, M.D., to be Assist.-Surg. to the Forces.

Naval Appointments.—Surgeons: J. Bankier, to the Bellerophon; J. C. Bowman, to the Inconstant; J. L. Clark, to the Hydra; G. Burn, to the Prince Regent.—Assistant-Surgeons: W. Patrick, to the Hydra; W. Gordon, to the Prince Regent.

Royal College of Surgeons.—The following members of the college were admitted fellows on the 16th inst., viz.:—Messrs. E. T. Warry, Lyndhurst, Hampshire; J. Cockle, Guildford-street; C. Radford, Uckfield, Sussex; J. S. Bartrum, Gay-street, Bath; T. S. Beck, Upper Marylebone-street; W. Clapp, Greenwich; D. D. B. Hovell, Clapton; J. W. Fletcher, Bengal Army; and T. Callaway, jun., Wellington-street, Southwark.—Admitted Dec. 20: T. P. Francis, T. Crowther, S. B. Birch, G. E. Gains, F. J. Barton, J. Barrow, M. H. Ashwell, J. S. Gundry, T. P. Rust, C. F. A. Courtney, G. Welford, J. Graham, W. Parry, W. C. Orford, and J. F. Ollard.—Admitted Dec. 27: W. Crosby, J. Bennett, W. Fuller, W. S. Falls, F. Glinton, R. Calthurst, C. W. Price, A. Barton, and F. S. Hodges.

Apothecaries' Hall.—Gentlemen admitted members on Dec. 16:—Alexander George Cockburn Thiselton, Haworth, Yorkshire; Gustavus Irwin Knight, Tilbury Fort; Horace Harrison Smith, Ramsgate; William Henry White, Stevenage Herts; and Hugh Green, Boxford, Suffolk.

The New Poor-law Board.—The appointments under the Poor-law Act (10th and 11th Victoria, chap. 109) having been completed, the act will take immediate effect. It was passed in July last, and its operation has been delayed until official notification was made of the president's appointment. By the act, commissioners may be appointed by a commission, and the commissioners first appointed are to enter on their office, and all the powers vested in them to take effect, on the day after the first publication of such notice in the *London Gazette*. Mr. Buller's appointment as president of the new board has already appeared. The President of the Council, the Lord Privy Seal, the Home Secretary, and the Chancellor of the Exchequer are *ex-officio* commissioners. Power is given to the commissioners to appoint two secretaries and other officers. Mr. Nicholls and Viscount Ebrington have received their appointments, and other situations have been filled, including "inspectors" who were assistant-commissioners, which title is now defunct. By virtue of the following provision, all powers and duties of the poor-law commissioners are now transferred:—Sect. 10, "And be it enacted, that on the day on which the commissioners first appointed under this act shall enter on their office all the powers and the duties of the poor-law commissioners with respect to the administration or control of the administration of relief to the poor throughout England, and all other powers and duties now vested in them, shall be transferred to and vested in the commissioners, and shall be thenceforth exercised by them, and by the commissioners appointed from time to time in and by any new commission or letters patent under the provision of this act; and all provisions in any act relating to the administration of relief to the poor in England, or to the powers or duties of the poor-law commissioners, shall be construed as if in the said several acts the commissioners had been named instead of the poor-law commissioners; subject, nevertheless, to any amendments made by this act either as to the substance or manner of exercising any of the powers of the said poor-law commissioners, and, at the same time, all powers and authorities vested by any act in the poor-law commissioners appointed under the first-recited act, or any act passed for the amendment thereof, shall cease, and all secretaries, assistant-secretaries, clerks, messengers, and officers appointed and employed by the said poor-law commissioners in the business of their office shall cease to hold their several offices and employments." Among the alterations made by the new act may be reckoned the non-separation clause of married persons above sixty years old, and the provision (the 24th in the act) to ensure the due visitation of workhouses. This act is to be construed with the other acts as one act.

King's College Hospital.—At a meeting of the committee of management of the above excellent charity it was stated that the liberal anonymous donation of £100 had been made to the funds of the hospital, the benevolent donor merely giving the signature of "A Friend." It was added by the committee that it was chiefly by such charitable gifts that they were enabled to dispense the benefits of the hospital among the poor of the densely peopled district, the annual income from subscriptions and dividends being under £1800, while the expenditure exceeded £4000.

Extraordinary Application of Chloroform.—The value of chloroform is now fully established as an anæsthetic agent. We have recorded in our own columns many extraordinary applications of it in some remarkable cases, but none so remarkable as that to which, with considerable presence of mind, and with the most complete success, it was applied by Mr. Cox, chemist, Trumpington-street, in the following circumstances:—On Sunday night, as Mr. Garner, veterinary surgeon, of St. Ives, was returning through Cambridge with his horse and gig, from a visit to his brother at Hauxston, he had occasion to alter the harness, for which purpose he stopped at the "Little Rose." He had scarcely got out of the gig when the horse began to kick in a most terrific manner, to the eminent danger of a lady who remained in the gig, as well as that of Mr. Garner himself, who was holding him by the head, and a crowd of persons who had collected; but such was the fury of the animal that no one could render any assistance. At last the brute threw himself fairly down, Mr. Garner still holding him by the head; and affairs were in this desperate state when Mr. Cox, chemist (next door), apprehensive of the danger that might ensue, poured about a drachm of chloroform on his handkerchief and applied it to the animal's mouth and nostrils. The furious patient readily inhaled it, and in one minute became quite insensible and to all appearance dead. This allowed the gig and harness to be removed with perfect security, and in about five minutes the effect of the chloroform passed off, the horse got up, shook himself, and walked quietly into the stable. Such is the effect of chloroform even upon the horse.—*Cambridgeshire Advertiser.*

Deaths by Fever.—A Manchester paper announces, with regret, the death, from fever, of Mr. John Davenport, governor of Millgate Fever Hospital. Mr. Davenport had superintended the Millgate Fever Hospital since its establishment; he died at last from his over-attention to fever patients. No fewer than 3500 fever cases had been under his care during the comparatively short time he was in office. On Saturday, two of the nurses of the Millgate Hospital died of fever, caught in the discharge of their benevolent duties. Another of the officers has, it is feared, also been attacked with the prevailing epidemic.

A letter from Meaux states that the regiment of cuirassiers in garrison in that town has been attacked with a kind of typhoid fever. Out of six hundred men, three hundred are in hospital, and five died on the 12th inst. The authorities have given orders to have the men remaining well removed to different points. Some of them have already arrived in Paris.

The Cholera.—According to official documents from St. Petersburg of the 2nd, the cholera was sensibly on the decline in Russia. From the appearance of the disease up to the 22nd of November, the total number of persons attacked at Moscow was 2360, of whom 1097 died. In the districts of the government of Moscow 141 individuals fell ill, of whom 69 died. At Kieff, from the 9th to the 16th of November, there were 179 cases and 129 deaths. In the province of Kieff, up to the 13th of November, 93 persons died out of 139 attacked. With the cold season, and the extension of the malady towards the west, the disease had lost a great deal of its energy. It was, in fact, declining everywhere, except in the governments of Pultowa and Tchernigoff, where it appeared to increase. The places newly invaded by the cholera are Mohileff, on the Dnieper; Kherson, on the Black Sea; Vologda and Tver, on the road from Moscow and St. Petersburg; but in those places it is of a mild character.

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THE INFLUENZA IN THE PENITENTIARY.—The sickness in this prison is very great. The average number in the infirmary is about 30 or 40, but now it amounts to upwards of 100, and has been 130, the influenza being the chief cause. There are about 1200 prisoners there, but convicts are not sent now to the colonies, from some difficulty the Government has in selecting the spot. A few have been sent to Gibraltar and Bermuda, but others, to make room in the Penitentiary, have been sent to the gaols of Yorkshire; Wakefield has no less than 400, and Reading 40; where they will remain until their future destination is determined on.

OBITUARY.—Oct. 31, at Delhi, R. M'Intosh, surgeon, 42nd Regiment.—On the 15th ult., at Toronto, of typhus fever, Joseph Hamilton, Esq., M.D., aged 51, sixth son of the late Hon. Robert Hamilton, of Queen's-town, Canada West.

MORTALITY TABLE.

For the Week ending Saturday, Dec. 18, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1946	1046
SPECIFIED CAUSES...	1943	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	629	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	131	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	178	157
Diseases of the Lungs, and of the other Organs of Respiration	657	333
Diseases of the Heart and Blood-vessels.....	52	34
Diseases of the Stomach, Liver, and other organs of Digestion	79	74
Diseases of the Kidneys, &c.	15	9
Childbirth, Diseases of the Uterus, &c.	18	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	14	7
Diseases of the Skin, Cellular Tissue, &c.	2	2
Old Age.....	110	65
Violence, Privation, Cold, and Intemperance.....	58	29

TO CORRESPONDENTS.

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

HOSPITAL QUACKERY AND OPERATIVE SURGERY.—"Senex" writes, calling our attention at length to the extraordinary quack advertisement of "Wakley and Co.," which, he says, has produced a wide sensation of indignation. He concludes thus:—"The profession must notice the new system of medical ethics so unblushingly introduced. I have shown *my* feeling on the subject, by at once giving up the *Lancet*, and mean immediately to propose its contumacious ejection from the reading club of which I am a member. If we stand a mean and deliberate insult of this kind, we shall deserve everything and anything that a faithless adventurer may find it worth his while to concert against us. We must hold no parley, suffer no compromise, and hold no terms, where confidence is under betrayal, and professional honour is at stake." There is much of important truth in our correspondent's remarks.

"S. H., Kensington."—We have paid attention to the alleged presence of cholera in London, and have no doubt that all the reports on the subject are without foundation.

"Pedro."—The authority of the Faculty of Physicians and Surgeons of Glasgow extends over four counties. We know nothing personally of the nature of the examination for the diploma. Oxford and Cambridge also are very inferior medical schools; but, as they enjoy the prestige of rank, and are celebrated for the good general education they impart, it is seldom that much is said in reference to their capabilities of imparting medical instruction. If a comparison were made between the two English universities and St. Andrew's, Aberdeen, as medical schools, it may be, as our correspondent intimates, that the latter would bear away the palm.

"Hippocrates, Newcastle."—The discussion in reference to the first cases of cholera in 1839 would be unprofitable; we must, therefore, decline inserting the letter.

"M. D., Glasgow."—The English College of Surgeons does not require apprenticeship; but demands of candidates for the diploma that they should have been engaged a certain number of years in the acquisition of professional knowledge. With the Apothecaries' Society an apprenticeship of five years is indispensable to the possession of the certificate.

"Mr. Stephen Gatwood,"—We must be permitted to use our judgment respecting the publication of the letter. A private communication shall be sent during the course of next week.

"Chemicus."—The paper "On a New Mode of Detecting the Presence of Arsenic" should have been authenticated, to ensure publication.

"A Union Medical Officer."—The facts had better be drawn up in a tabular form. Should our correspondent wish it, however, the letter shall be published without any revision.

"Snob."—The letter exhibits talent, but not prudence; we must decline its insertion.

"T. B., Birmingham."—The article on Chloroform came too late for insertion in the present number.

"Dr. Goodwin."—The question shall be answered in a private communication.

"A New Member of the College."—It would be imprudent to purchase a practice without first having ascertained, so far as possible, its value. No proprietor of a *bonâ fide* concern would object to a fair investigation.

"A Guardian" writes us a letter in which he expresses himself favourably towards an increased remuneration to parochial medical officers. He evidently, however, retains many prejudices. We would advise our correspondent to investigate the matter a little closer, keeping in view the precept, "Do unto others," &c.

"Spectator."—We have noticed the subject this week; and we hope that those who profess to be the friends of medical men will henceforth show by their actions that they are so. The coroner's subterfuge was a very disgraceful one.

"B. A., Oxon."—The paper shall receive an early insertion. We shall be glad to hear again from our correspondent.

"Medico-Chirurgus, Paddington."—The commissioners of police appoint the surgeons to the police force. We are not quite certain what salaries they receive.

"A Non-Professional Friend."—We are sorry that we cannot prove ourselves friendly by prescribing for the malady. It is a thing we never do; we would advise our correspondent to consult immediately some respectable medical practitioner.

"Dr. Wm. Buchanan."—The papers referred to shall be forwarded next week.

"A Student, St. George's."—"Chellus' Surgery," translated by South, is a valuable work.

"Incog., Stroud," is thanked for his communication in reference to the Gloucester Infirmary; it is probable we may make use of it next week.

"Mr. Batten, Coleford."—The letter came safely to hand.

"A Medical Assistant."—The remuneration is inadequate for the labour. We know not how the evil can be remedied.

"D."—We do not know the publisher.

"Sydenham."—Dr. Armstrong was rejected by the College of Physicians.

"Mr. Edward Challis."—The case is an interesting one, and shall receive an early insertion.

"A General Practitioner."—We are not acquainted with the intentions of the Government in reference to an incorporation of the general practitioners. The National Institute is in communication with the Home Secretary.

"Mr. George Sanford."—The Westminster Hospital School is closed. The reason assigned is to make way for improvements.

"Mr. Jennings."—The omission shall be rectified.

"X. L."—A part of the letter we cannot decipher, and, therefore, must request our correspondent to write again if he wishes us to answer what appears to be a question on some subject.

"Mr. Edward Joseph Mehain, 6, Atkinson's-buildings, Holborn."—The "gramme" is equal to about 15½ grains English. The liq. ammonia alluded to is that of the Pharmacopœia.

"Mr. G. W. Blanch, 3, Albion-place, Blackfriars-road."—The suspicious case of Asiatic cholera has been received.

"J. J." sends us an account, taken from the *Times* newspaper, of a man, in the 4th Royal Irish Dragoon Guards, eating in the course of a few hours a boiled leg of mutton weighing 14 lb. 3 oz., a peck of potatoes, half a peck of turnips, two pounds of bread; drinking during the time a gallon of ale. Our correspondent asks "those physiologists who have faith in the present doctrine of absorption, and who, therefore, regard the *thoracic duct* as the 'inlet for the fresh nutritive materials derived from the digestive process,' whether they believe that a mess of provisions, weighing not far off three stone, or that even one half or one quarter that quantity could, after it had undergone fluidification or digestion in the alimentary tube, be absorbed by the lacteals, and then squeezed through the mesenteric glands and thoracic duct into the left subclavian vein?"

"Medicus" writes us—"I am a member of the medical profession, and have been so this thirty-eight years; and never before have I witnessed, until of late, the badly written prescriptions that enter my shop. I will defy any one to make them out with safety; I think nothing should be written so plain as a prescription, considering the life of the patient is at stake. I had one a few days ago that I was obliged to turn away; most likely the person that brought it would take it to a chemist and get it made up by guesswork; they seem to take less pains in writing prescriptions than anything else; let us have them written in a plain and legible hand, with none of their fine flourishings and half-formed letters. No doubt many accidents have occurred from this neglect.

"Ita," in reference to Dr. Simpson and chloroform, says, "The fact is that Dr. Simpson is a very rare example of a man who has not forsaken the Temple of Science for the Court of Dives. He loves his profession, and labours for its improvement. No better proof of this than his perseverance in thrusting the use of chloroform in midwifery on the profession. It surely would be much more satisfactory if your correspondents, instead of their opinions, would give us some reasons against its general use. Let them tell us what those special cases, constitutions, &c., are, which forbid its employment, instead of favouring us with their assertions that such exist. Enough for me, and I should think every reasoning and reasonable man, are these unanswerable facts, that now, for nearly a year, ether and, since its introduction, chloroform have been continually employed in every hospital in Europe; that Dr. Simpson for the same time has used it incessantly in his extensive practice, and yet neither in one case or the other have we had one well-authenticated case of bad consequences having followed its employment. Age, sex, condition of body, disease—none of these have yet contraindicated its use. For the proof of this, ask every man you meet, whose opinion is worth the asking."

"Mr. Greatwood's" communication is in type, and will appear next week.

"Mr. Johnson's" letter shall also appear next week.

"Dr. Coglan's" "Case of Burn, followed by Death," is also postponed to next week.

Our press of matter is so great that we can only notice the receipt of Dr. Duesbury's communication.

"A Medical Practitioner," who complains of pecuniary injustice in the fee distributions of the Middlesex coroner, should avail himself of his legal rights as laid down in Lord Denman's celebrated judgment. We really have no space nor time to give to the many complaints that reach us on this troublesome subject. The remedy is in the profession's own hand.

"S."—The partition of diagnostic mistake in Liston's case is a more difficult matter than our correspondent fancies. Dr. Williams, who throws the blame on his colleagues, does not appear to have enjoyed the professional confidence of his friend Dr. Liston, and thus *his* fatal mistake, however curious, becomes the less extraordinary. It is an important fact for the annals of pathological research, that that learned physician's stethescope requires for any use it may possess, even under a double application, more decisive phenomena than those presented by an aortic aneurism the size of an orange pressing on the trachea. We suppose it was this peculiar quality of medical science, as evidenced by physicians of his acquaintance, that won from Sir Astley Cooper his celebrated "Thank God I know nothing of physic!"

We have received several letters complaining of what one of our correspondents calls "quackery under a medical authority;" we mean the "operative" exploits in a certain beggarly dispensary in Gray's-inn-lane. We have noticed the subject elsewhere, joining in the opinion that it is a case requiring professional cognizance.

"M. R. C. S."—who forwards us the decision in a County Court of Requests, adverse to the charges for medical visits—has not sent us all the details of the case.

"A Union Surgeon."—We quite concur in our correspondent's eulogiums as to Dr. Burton's letter in our last number; but we do not think that the recommendations of our correspondent in reference to a changed system of payment are judicious, or would serve the cause in their publication.

"M. D.'s" criticism on the diagnosis formed by Dr. Williams in Liston's case must stand over till our next number.

"Mr. Ross" has forwarded to us the memorial agreed to by the National Institute, which shall appear in our next number.

"A Neighbour" complains in strong language of non-performance of duty by the lecturers at the London Hospital School. The pupils, day after day, receive, and that sometimes after a troublesome journey, a notice on a black slate instead of a lecture, and though often of about equal value, scientifically, yet the disappointment is not in every case quite satisfactory. The Hall and College would do well to look after the certificates of this institution.

Letters and communications have been received from Mr. Spooner, Blandford; Mr. Newman, York; Dr. Lawrence, Aberdeen; Mr. Rock, Castle Blaney; Mr. Deane, Chatteris; Mr. Randolph, Milverton; Pedro; Hippocrates, Newcastle; M. D., Glasgow; Mr. Stephen Gatwood; Chemicus; A Union Medical Officer; Snob; T. B., Birmingham; Dr. Goodwin; A New Member of the College; A Guardian; Spectator; B. A., Oxon; Medico-Chirurgus, Paddington; A Non-Professional Friend; Dr. Wm. Buchanan; A Student, St. George's; Incog., Stroud; Mr. Batten, Coleford; A Medical Assistant; D.; Sydenham; Mr. E. Challis; A General Practitioner; Mr. Geo. Sanford; Mr. Jennings; X. L.; Mr. Edw. Jos. Mehain, 6, Atkinson's-buildings, Holborn; Mr. G. W. Blanch, 3, Albion-place, Blackfriars-road; J. J.; Medicus; Ita; Mr. Greatwood; Mr. Johnson; Dr. Duesbury; A Medical Practitioner; S.; M. R. C. S., &c.

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No. 431. **SUMMARY.** JAN. 1.

ORIGINAL LECTURES—
Lectures on General Pathology, delivered to the Faculty of Medicine by Professor ANDRAL, reported by D. M'CARTHY, M.D. Paris 209
A Course of Lectures on Surgery, by SAMUEL COOPER, Esq. 210
Clinical Observations on some of the more frequent Diseases of Children, by W. H. WILLSHIRE, M.D. 211
ORIGINAL CONTRIBUTIONS—
The Physiognomy of Diseases or Semeiotics in their Assimilative Characters, by G. CORFE, Esq..... 212
PROGRESS OF MEDICAL SCIENCE—
Academy of Sciences; Meetings of Dec. 13 and 20 .. 213
Academy of Medicine; Meeting of Dec. 22 213
MISCELLANEA 214
ROYAL MEDICAL AND CHIRURGICAL SOCIETY 216
Ethnological Society 216
Statistical Society 216
REVIEW—
Elements of General and Pathological Anatomy, by DAVID CRAIGIE, M.D. 217
LEADERS—
Free Hospital Quackery 217
The Medical Council of the London University School—Election of a Surgeon 218
Irish Poor-law Medical Remuneration 218
Diagnosis of Drs. Watson and Williams in the case of Mr. Liston 219
Poor-law Medical Relief 220
Dr. Williams and the Stethoscope 221
The Quack Case 221
A Word on Auscultation 221
The New Incorporation 221
Facts and Arguments in Support of the "Humane System of Non-restraint and Non-seclusion," by W. SMITH, Esq. 222
Case of Burn—Death 223
New Instrument for Inhaling Chloroform 224
Status of the Medical Profession Considered in connection with its Educational System, by P. BRADY, Esq. 224
Free Hospital Operations 225
Evidence taken before the Select Committee on Medical Legislation 226
GOSSIP OF THE WEEK 226
MORTALITY TABLE 228
TO CORRESPONDENTS 228

ORIGINAL LECTURES.

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 PART. CHAPTER II.

SIGNS FURNISHED BY THE INVESTIGATION OF THE CIRCULATION.

These signs may be furnished by the exploration of the heart, the arteries, veins, and capillaries; the spleen, as an appendix of the circulating system, also claims some share of attention; and, finally, the constitution of the blood, and the state of the lymphatic vessels, are likewise, in disease, the source of diagnostic signs.

All the signs furnished by examination of the heart are not obtained by physical means. The latter are, no doubt, the most important; but we must also study those which are purely functional. Thus, palpitations or increased violence of the pulsations of the heart may accompany every morbid change of that viscus, without pointing to any one in particular. This symptom is sometimes more marked in incipient disease than in the more advanced stages of valvular alteration. Palpitations may also be merely a dynamic disturbance not connected with any anatomical alterations of the organ. Their cause, in such cases, may reside in a primary alteration of the nervous system, and be accompanied with oppression and vertigo, simulating disease of the heart; but in these instances the increased action is variable in its intensity and in its causes. Alterations of the blood, plethora, and anemia, *e.g.*, occasion, secondarily, disturbance of the nervous system, and also produce palpitations, sometimes of a violent nature, Palpitations are, therefore, a common symptom to organic and dynamic affections of the heart; and, in order to recognise the real nature of the latter, it is indispensable to have recourse to other sources of diagnosis.

Pain in the precordial region is usually attributed by patients to a morbid condition of the heart; but the pathologist should recollect that it may be merely neuralgia of some intercostal nerve, and also, on the other hand, that true acute pericarditis may be totally unattended with any pain. Endocarditis is still more frequently unaccompanied by suffering, nor is any usually observed in the various alterations of nutrition of the heart. Neuralgia of that organ is a disease the existence of which cannot be denied. As a sign of organic lesion, we consider palpitations as more important to the diagnosis than pain. We may also add, that we are not satisfied that the white patches of the pericardium, or the partial adhesions so commonly observed within that cavity, have not something to do with the presence of more or less tenacious pain in the præcordia.

The principal phenomenon in syncope is the arrest of the action of the heart. This we observe in the first place when that organ is primarily affected, as in pericarditis, or when air has been introduced accidentally into the veins (wepter); it is not so well demonstrated that polypous concretions within the heart can occasion this symptom. Secondly, we again notice syncope when, the heart not being primarily affected, a large quantity of blood is suddenly abstracted, or even fixed for a time in any distant part of the body, as it is during the application of the immense "cupping-boots," if we may use the term introduced into practice by Dr. Junod. Again, after too rapid delivery, after paracentesis abdominis, internal hemorrhage, or sudden emotion, producing great nervous disturbance or intense pain, and in hysteria, syncope is frequently met with. One variety of pernicious fever is characterized by the presence of this accident; and sometimes sudden syncope, which may terminate fatally, occurs as a unique and primary symptom.

We now turn to the history of the physical signs of disease of the heart and its envelopes. These signs are derived from four sources of knowledge, viz., inspection, palpation, percussion, and auscultation.

Inspection informs us of increase of size of the precordial region; and when the enlargement is considerable, it is always the result of disease. It may also lead us to recognise a greater degree of intensity in the pulsations of the organ, or even its displacement: thus, the apex naturally beats in the fifth intercostal space at about two inches from the nipple; but when the left ventricle is hypertrophied, the pulsation is observed to occupy a lower seat. Dr. Saunders considers epigastric retraction after pulsation of the heart as indicative of adhesions between the pericardium and the heart; we do not deny that such may be the case, but we cannot look upon the sign as occurring so constantly as Dr. Saunders is inclined to believe. In pericarditis attended with effusion the pulsations are said to be perceptible in a higher region than the dulness given by percussion. ("Aran Archives," July, 1844.) Ectopia of the heart is also detected by inspection; Harvey observed in an adult the movements of the heart exposed to view by the incomplete development of the thoracic walls, and showed this singular case to King Charles II.

Palpation leads us to recognise the intensity of the pulsations: we find them increased in hypertrophy and diminished in dilatation of the heart. We again find them diminished in syncope, in pericarditis, or when the healthy lung is interposed between the viscus and the thoracic walls. Abundant effusion in the left pleura, or excessive abdominal dropsy, may also occasion displacement of the heart, and cause us not to find its pulsations by palpation. This mode of diagnosis also permits us to ascertain the extent in which the pulsations may be felt, and their frequency, which is always increased in endocarditis, in considerable valvular insufficiency, in nervous disturbances of the heart, in great general debility, and in all cases where the animal heat rises above 38° Cent. (99° Fahrenheit). Palpation tells us, on the contrary, that the beats are less frequent in some forms of hypertrophy, in cerebral disease, in certain intoxications (for instance, after the exhibition of digitalis). This subject we will refer to more at large when we treat of "the pulse." Changes in the order of succession of the contractions of the heart may also be known by palpation, and displacements of the viscus by hydrothorax, pleurisy, or ascites. One of the signs furnished by palpation of the region of the heart is of the greatest value in the diagnosis of organic disease: it is that which has received the name of "purring tremor," and which always indicates considerable friction within the heart, and almost invariably denotes valvular disease. Hope, Dr. Stokes, and Professor Bouilland have also met with purring tremor in pericarditis. We have not had that good fortune. Laennec, who, during the last years of his life, betrayed a singular tendency to doubt the existence of anatomical alterations in conjunction with the physical signs of disease, admitted that purring tremor might be produced by mere nervous disturbance; this opinion, however, we cannot possibly partake of.

Percussion, introduced into science by Auenbrugge and Corvisart, was, it is singular to say, hardly noticed by them as a means of coming to a correct diagnosis in diseases of the heart. It is chiefly to Professor Piorry that the credit is due, of having shown the important results to be obtained from that method in disorders of the central organ of circulation. In the healthy adult the precordial region is perfectly dull on percussion in an extent of two square inches; around this dull region, strong percussion yields also a certain loss of resonance in about one inch and a half in every direction. Near the sternum the dulness is less perfect, and corresponds to the right cavities of the heart; in this region, also, we should add that less resistance is felt by the finger during percussion. The presence of the emphysematous lung between the heart and the thoracic walls diminishes the dulness; but it is increased by effusions in the left pleura, by indurations of the lung, and by tumours of the mediastinum, such as cancer, abscess, or aortic aneurism; disease of the heart itself, or of its envelopes, also has the same result. Effusion in the pericardium causes dulness in a pyramidal region, with its apex at the upper part of the sternum, and its basis inferiorly; this dulness may be displaced in changes of position of the patient, when the effusion is not very considerable. Increase of size of the heart, whatever its cause, also produces augmentation of the space in which dulness exists during health; thus, accumulation of blood in the heart, eccentrical hypertrophy (dilatation), produce increased dulness. In enlargement of the left cavities, the dulness is chiefly found towards

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the fifth, sixth, seventh, or eighth ribs; and when the right side of the heart is hypertrophied, it is towards the inferior part of the sternum that the maximum of dulness is observed. As to the delimitation by percussion of the various cavities of the heart, Professor Piorry asserts that it may be obtained by plessimetry; but further researches are necessary in order to satisfy us upon this point.

In our next lecture we will study the semeiotic signs furnished by auscultation in diseases of the heart.

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 XXII.

Gentlemen,—A class of inflammations arising from cold, exceedingly troublesome to the patient, and often difficult to heal, without being in themselves dangerous, are chilblains. They occur most frequently on the toes or edges of the feet, on the heel, the instep, the back of the hand; sometimes the end of the nose or ear, and the parts about the metacarpus, suffer. The inflammation is of an irritable, but languid, character, and, the circulation being weak in the parts attacked, the reparative power is low, and requires stimulation. It may be observed that in many respects a similarity is remarked between the effects of an extreme degree of heat and of intense cold. In the simplest kind of chilblains there are merely redness, swelling, heat, and itching of the parts. In the second degree of severity there is more heat, pain, and swelling, and more or less deprivation of the use of the part, and, when on the instep or back of the hand, the swelling is very great, and the patient is rendered lame. In the third degree vesicles are formed, in consequence of the accumulation of a dark bloody serum under the cutis, the surface of which frequently ulcerates, and the sores thus formed are very painful, full of an ichorous matter, very deep, and difficult to heal. They present a greyish and often fungous appearance at bottom. The worst cases of chilblains are those in which the bloody vesicles are followed by gangrene. Predisposition to chilblains is met with in persons of delicate constitutions, and in those who have been brought up tenderly, especially persons subject to scrofula, and those who perspire much in the feet. It is found that exposure of a part to intense cold while in a state of perspiration is more likely to be followed by chilblains than its exposure to the same degree of cold when it is simply warm. Of itself cold cannot produce true chilblains. The treatment is pretty well understood, and generally agreed on. If you have them in the first and second degree of severity you are to use friction, and rub well with the camphor liniment, or the soap liniment, to every five parts of which you may add one part of the tincture of cantharides; the liquor plumbi diacetatis, or a mixture of two parts of sp. vini camph., and one part of liquor plumbi diacet. Abroad, they immerse the parts in ice-cold water two or three times a day, rub them dry and cover them with a leathern sock; but this method is not universally applicable, and must not be used with patients disposed to phthisis or gout, nor with delicate females. I have already observed that the inflammation which accompanies chilblains is rather languid, and, as they have not much power of reparation, they therefore require stimulants. Ulcerated chilblains should have stimulating dressings, as a solution of the nitrate of silver, Peruvian balsam, a mixture of liquor plumbi acetat. and liquor calcis, or a lotion of chloride of lime, which is recommended by Lisfranc; this may be applied by means of lint. Some practitioners are very partial to a poultice in the first instance, made of oatmeal with some port wine, and they think it is of great benefit. The treatment of chilblains in a state of mortification is conducted upon the same principles as in other instances of gangrene.

The subject next for consideration is that of wounds. By a wound is meant a breach in the continuity of the soft parts, produced suddenly by an external cause, and generally attended in the first instance with hemorrhage and pain. Such is a general definition of the term; but some circumstances occasionally arise requiring it to be understood in a modified sense. Breaches of continuity are thus sometimes made by the violent action of the muscles, which tear themselves, break the bones, or rupture the tendons to which they are joined. Wounds are characterized either according to the description of weapon by which mischief has been done, or upon the circumstance of venomous matter having been infused into the part, or from their own nature and locality. Incised wounds or cuts are simply divisions of the textures; being made by sharp instruments, there is no contusion or laceration; the tendency to inflammation, suppuration, and mortification exists, therefore, in a very low degree, as compared with other wounds. The surgeon has only to prevent the wound from gaping; that is, to bring the opposite edges of the wound together, and to maintain them in this condition a short time, and they will grow together again. Danger in such cases, where it exists, is the consequence of the loss of blood by which such a wound is sometimes attended. Punctured wounds, as the stabs of pointed weapons, bayonets, lances, daggers, &c., or large thorns or nails, introduced suddenly into the flesh, injure the parts far more than simply incised wounds. They are generally inflicted with force and violence, and often penetrate to a great depth, injuring the viscera, bloodvessels, and nerves; and, as many weapons are found with a diameter increasing with the distance from the point, their entrance to any considerable depth forces the fibres asunder like a wedge, and so causes a serious degree of rupture and contusion. Besides this, you have contused and lacerated wounds produced by some blunt substance impelled with violence against the body; this division includes gunshot wounds, a most interesting class, which will enable you to understand the nature of contused wounds generally. Every solution of continuity made suddenly by a blunt body must produce contusion and laceration, and for this reason some bites, not venomous, come under this division of wounds. Another class of wounds are those which are produced by the bites of some serpents and the stings of certain insects. These are complicated by the presence of a venomous fluid or matter in the part. Under this head rank those cuts and pricks received by the surgeon in dissecting dead bodies, in handling infected instruments, or dressing buboes and chancres.

The most dangerous, however, of all venomous wounds met with in this country are the bites of the viper and of rabid animals. There are many wounds, as I have said, which derive their names from their situation in the body; thus we have wounds known as *wounds of the head, face, chest, throat, abdomen, lungs, liver, &c. &c.* Wounds may further be regarded as simple or complicated. I have mentioned incised wounds as the most simple, but they may be complicated in various ways, as by the lodgment of foreign bodies or of irritating matter in the part, by the loss of a part of the substance, an attack of hospital gangrene, phlegmonous erysipelas, traumatic tetanus, and many other circumstances, all of which will cause, if necessary, the surgeon to deviate from the treatment requisite for a simple wound. All wounds of considerable size or depth are followed by symptomatic fever in a higher or lower degree. The extent of time in which this comes on varies: sometimes it comes on very early, but usually from sixteen to thirty-six hours after the injury. As its appearance the skin becomes much warmer, the heart and arteries increase in the frequency and, generally, in the strength of their action; the patient is thirsty, has an anxious expression on his countenance, and his powers of digestion are impaired. It is of the greatest importance that the practitioner attend to the true character of the fever, as being of the true inflammatory or of the asthenic type, since the loss of blood which may be tolerated by the system in one case will be sufficient to destroy in another. The prognosis of wounds depends on many circumstances and combinations—on the size, the violence attending them, the reparative power of the part, as well as on the age and the general state of constitution of the patient. The mere size of a wound will often be a source of great danger. I have seen a surgeon obliged to remove a large adipose tumour of the extent of twenty-five pounds weight. Such an operation may, without injuring any part of importance, of its mere magnitude, occasion death: on this account amputations of the thigh are so much more dangerous than of other limbs. Wounds attended with contusion and laceration will be much more likely to cause death than a simple incision, even should the latter be of far more considerable extent. Injury of large arteries will be sufficient to destroy life in a very short time; and you should be told that great dangers often attend wounds of smaller arteries, where they are out of the way and difficult to reach; and often under these circumstances, at the same time, there is a greater disposition to bleed in these small vessels, as in those of the abdomen, which are very favourably situated for hemorrhage, and where the blood becomes a very great source of irritation. I explained that incised wounds were the most simple description, and more readily healed than wounds complicated by contusion and laceration. Many of them, however, from their situation or other causes, are highly dangerous; thus, for instance, incised wounds of the throat involving the larynx and trachea. The first effects of an incised wound are, more or less, bleeding, acute pain, and separation of the textures cut. From the vast number of bloodvessels with which every part of the body is supplied, it is impossible to prick the skin with the finest needle without coming upon one or more ramifications of vessels containing blood, which issues from the opening. When, instead of a needle, the cutting instrument has width sufficient to divide, in penetrating, an extensive portion of the flesh, the consequences are more marked, as not only a greater number of bloodvessels are involved, but most likely some of these of magnitude; the hemorrhage will then be profuse, and may be fatal. The pain of a wound is dependent on the kind of instrument with which it is inflicted, its extent, and also on the state of mind of the individual at the time of sustaining it. Soldiers and sailors in the heat of an action are often severely wounded, but are not conscious of the fact until the heat of the action has subsided, or till loss of blood causes faintness too considerable to be longer disregarded; while, on the other hand, a person about to undergo a surgical operation is conscious, in the highest degree, of the division of textures about to take place, having the prospect before him, perhaps for a long time beforehand, and his pain will be greater.

The separation of the edges of a wound is the result of the natural elasticity of its textures. It is true that the dividing instrument, acting like a wedge, separates the edges from each other; but the gaping from this circumstance alone would be inconsiderable, were it the only cause. The two edges are sometimes separated by a space as wide as several inches from each other, and the elasticity natural to the skin and other tissues, as well as the contracting power of the muscles, is a principal cause of such separation. The elasticity of a part, however, is not always the measure of separation in incised wounds; the degree of tension at the time of the injury has somewhat to do with the result. There are four principal indications in the treatment of incised wounds. The first and most obvious is to stop

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the hemorrhage, since, this overlooked, the patient must bleed to death. The second is to remove foreign bodies; you are not justified in closing a wound while any foreign body remains in the textures. It is true that cases do very seldom occur where incised wounds contain extraneous matter; still they happen sometimes, and the caution must not be neglected. The third indication is to bring the edges of the wound together, and to keep them quiet until the process of healing has firmly and permanently united them. Fourthly, you are to attend to the patient's general health, to keep the bowels open, and to watch for the appearance of febrile disturbance.

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

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

(Continued from p. 190.)

GENTLEMEN,—I have now to pass to the consideration of the modes of treatment I would advise you to adopt in the various forms of infantile diarrhœa. You have seen how different are these forms at the extremities of the scale, and can therefore readily believe your treatment will have to be as opposite. As from the simplest description of mere sympathetic diarrhœa up to the severest form of entero-colitis, you may have many kinds of combinations and modifications of the more general types which I have laid down, so will your therapeutic procedure have to assume a modified and mixed character. Whilst in the very simple forms of all you will have to take care that you do not do too much in the way of drug administration, lest you convert a very mild and temporary disorder or, rather, inconvenience into a prolonged and severe inflammatory affection, at the same time you will have to be upon your guard lest that which has appeared to you of no account shall be the forerunner of, and merge into, by almost inappreciable transitional changes, inflammation and ulceration of the larger bowel. This double care, as it were, of opposite contingencies is that which renders the treatment of the simpler diarrhœas of more importance than is often supposed.

In most cases of diarrhœa the first thing offered to your notice is the actual condition and frequency of the alvine dejections: these are almost always first alluded to by the parent, and for some peculiarity in them the child is brought to you. In the more severe case of acute entero-colitis, and in the prolonged or chronic ones, however, the extreme emaciation may be the first thing that you notice, since you may not see the patient until such a state has supervened, and for the "falling away," in fact, you are often told the child is presented to you. Here, then, you learn of the diarrhœa, upon inquiry, in a secondary way. But in both these cases you make yourself acquainted with the state of the bowels before any consideration is paid to the cause of the disease. That state being determined, then, and after inquiries as to the duration of it, you take care before you begin any treatment to make all inquiries as to the origin of the disorder. In children, before they are six or seven months old, these inquiries will be chiefly limited to the nature and quantity of the aliment it is receiving, and to the exposure of it to great heat or cold. Beyond that period the state of dental evolution becomes added as a point for your investigation, and after that the likelihood or not of there existing intestinal entozoa is superadded to the others. Combined with all, however, is the *epidemical* influence to be regarded at certain seasons of the year. According, therefore, to the probability of either of these causes existing, so will your therapeutic procedures vary, and also in relation to the type of the disease they have produced. Still, whatever may be the cause, whatever the type, of the disorder, there are certain general rules applicable to all, and which I shall at once allude to.

In every case of diarrhœa there exists local intestinal irritation of some kind or other, whatever may be its grade; therefore, in your treatment, care must be taken that that irritation be not increased. The already existing irritation is in most cases that of a mucous membrane and its follicles; irritation of such structures is always the more amenable the more we can avail ourselves of local treatment; and therefore you must lay stress upon this, and not rely alone upon general constitutional procedure. The seat of the irritation, especially in the severe and prolonged cases, is on the mucous surface of the lower bowels; therefore, so far as actual local treatment goes, the administration of remedial agents by the rectum, and the acting on the surface of the abdomen by palliative and soothing measures, are never to be forgotten. The persistency of diarrhœa tends to exhaust the vital powers in a twofold way—by the discharge it keeps up, and by the irritation being translated or radiated to the stomach and upper bowels, by which the aliment is rejected from the former, or, if retained, by the digestion being imperfectly, or not at all, performed both in it and in the latter; and, therefore, there can be no refection to the "wear and tear" going on: the candle is burnt at both ends. Lastly, the more severe forms not only exhaust the vital energies by their own nature, but generally originally occur in constitutions naturally weak and delicate.

Besides the principles guiding your treatment deducible from these propositions I have already hinted at, you will discover one or two others, if you think a little more. You will see that diarrhœa is not to be treated by purgatives—local irritants often of a severe character—unless you have reason to believe that there is retention of something in the tube which keeps up or causes the local excitement, and which you can have no chance of alleviating, unless the retained object is removed. You will find, also, that decided antiphlogistic and depressing measures cannot in any but rare cases be had recourse to. I lay stress upon your not being guided by the rule of at once giving agents exerting a cathartic action in diarrhœa, because, although apparently it is strange to follow such a practice, yet such a one is the basis of the therapeutics advised by many writers. I say *strange*, because *à priori* there is already too much intestinal disturbance; why, then, further increase it? Yet, as I have said, doctrines have gone abroad in which it is taught that, by the mere temporary exciting action of the cathartic, the more permanent one causing the diarrhœa is to be cured. By such and analogous measures it is said by Legendre that "we free the internal face of the digestive tube of the layer of altered mucus which lines it; we energetically modify its vitality, and especially the secretive action of the mucous follicles; we substitute a more or less active irritation, itself tending to terminate rapidly, for a chronic, obstinate, secretive irritation. We therefore perfectly agree with M. Gendrin in regarding emetics and purgatives as the most efficacious remedies in the cure of intestinal diacrises." To the general doctrine of purgation in the treatment of diarrhœa I disagree entirely, but of course must with every one admit that in some of the mucous varieties, as I shall afterwards explain to you, it will be often necessary to put it in force, as also under the circumstances I previously mentioned; and I freely admit, also, that the value of emetics is often great in the extreme. Still you can see the difference between such modified practice and the adoption of purgation as *a rule* in diarrhœa. I strongly advise you to read the remarks of Stokes (a), Graves (b), and Copland (c), bearing relation to this point, so far as regards adults, at least, and you will rise from their perusal, I am sure, with information of extreme value. "Much mischief may arise and discredit be reflected on the practitioner by following blindly the dictates either of unsound theory or worthless authority, instead of being guided by principles of common sense. I have repeatedly known persons who have been accounted ignorant, but who were not necessarily without sound sense, complain bitterly, and lose all confidence in the medical attendant and hopes of recovery, when directed to take cathartics after, as they have expressed it, their insides had been nearly purged out of them."

With regard to the inability of our being generally able to employ antiphlogistic measures, although certain forms of the disease are inflammatory, this is founded on the peculiar nature of that inflammation, the state of constitution it occurs in, and the vital depression which it is almost inevitably accompanied by, or to which it leads. Upon this point I may quote to you the words of Rilliet, who says, "We must reserve debilitating measures for a small number of well-marked cases—that is to say, for those in which the disease at the onset is accompanied with fever or abdominal pains, happening to an older child, whether as a primary disorder or as the sequence of another affection which has not left behind depression of the vital powers. In such cases we may apply from four to twelve leeches to the abdomen or to the anus, but must take care that the loss of blood be proportionate to the power of the child; at the same time we should apply emollient cataplasms to the abdomen and give demulcent drinks. It is rarely the case that we have necessity a second time to have recourse to the above medication; the disease assuming a chronic aspect, we must renounce debilitating means, which will become hurtful." From these remarks you may get hints available on the points I have alluded to, but some of them must be very cautiously received.

In all cases of diarrhœa occurring in infants and very young children, not yet freed from napkins and other similar recipients of their evacuations, you must never forget to impress upon the nurse the absolute necessity of very frequently changing them. Unless this is done you will have a complication of the diarrhœa to deal with, very troublesome to yourself, and, perhaps, of very serious import to the child. You will have erythematous inflammation of the thighs, nates, &c., induced, which may proceed to ulceration. Every time the diaper is removed the child should be gently washed with tepid water, and wiped quite dry with a piece of old soft linen; but all this must be done without any rough scrubbing of the parts. Should the latter have become irritated previous to the re-application of the diaper, they should be touched over with the powder-puff. On the Continent they use for this purpose bycopodium powder—the sporules of bycopodium clavatum—and there they have a very high opinion of its virtues, and consider them far beyond anything else. Bouchut says water glides over the skin which is covered with it as it would over oil-silk; Sobernheim strongly recommends it; and Rosenstein and Vogel, for the ulcerated state, advise it to be made into an ointment with the oxide of zinc, and applied to the parts. I agree with the writers who deprecate the use of fatty matters in these cases, and prefer the use of a lotion of the sulphate of zinc in rosewater. Bouchut recommends a very dilute solution of the bichloride of mercury.

In those cases of diarrhœa complicated, in older children, with prolapsus of the rectum, you must enforce upon the nurse the fact that the child is not to be allowed to sit upon a *low* stool or chamber utensil in performing the office of defecation. In very bad cases the child should evacuate the bowels in the recumbent dorsal position in a bedpan; by this means the lower bowel will be prevented getting into the habit, if I may so call it, of coming down, or, if it does, it is far more easily put up again. On its protrusion, it should be gently washed after each motion, at first with tepid, after a day or so with cold, water, in order that all remains of irritating matters may be removed from its tender and irritable surface. Care must then be taken that, as soon as possible after every "fall," reduction be gently performed. Often you will find the application

(a) "Lectures," American edition, p. 500.
(b) "Clinical Medicine," p. 73.
(c) "Dictionary," Intestines, p. 587.

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of a lotion of alum or of sulphate of zinc, or of the tincture of the sesquichloride of iron, will be of great avail. Anything further I might say upon this point, however, belongs to the subject as a separate disease, to be separately treated, whether medically or surgically.

In proceeding to treat any special form of the disorder, you, of course, as I have told you, will endeavour to find out its cause; and your attention in very young children will be chiefly directed to the states of alimentation and evolution of the teeth. From imperfect performance of either of these offices you may trace, as you now know, all forms of the affection; and, therefore, your treatment, of course, will have to be modified; but these important offices must be first attended to, or no good result can be expected from your interference. In a child still being nursed, therefore, make all inquiries as to whether any of those vegetable aliments I previously referred to are at the same time being given to it; if so, stop them at once, and have the child confined to the milk of the mother. Inquire, also, whether the mother—if the child be several months old—has begun menstruating again, or has profuse leucorrhœa, or if she has reason to suppose herself pregnant; if so, the milk will suit her infant no longer. This will become more particularly necessary to be attended to when the diarrhœa has been obstinate for some time past, and still continues so. Under such circumstances it would be necessary for you to advise the adoption of one or other of these things—to change the breast milk, or at once entirely wean the child, and feed it upon food conformable to the state of its dental development and other circumstances. Sometimes, in the better classes of society, you can effect the former with marked benefit to the infant, the diarrhœa ceasing, and the child gaining flesh, as new and better sustenance is afforded it. It may be necessary even to advise another such change, if the new milk does not seem to agree with it. M. Donné says he has thus changed the milk five or six times before he could accomplish his object. In the lower classes of society this will be impossible; you will then have to feed the child artificially, and the description of the food which will suit it best cannot always be foreseen. The first thing which will influence you in your choice will be the want, or an abundance, of teeth. Upon much relative to the diet of infants and children I have already spoken, (a) and therefore shall be more concise in what I have to say now. As a general rule you will find that a milk diet is the better; the milk may be given either boiled or unboiled, according as it suits the child best. Sometimes you will find it rejected when boiled, and retained when not so, or the converse may happen; to this may be added isinglass, or gelatine pap, or for elder children boiled milk and ground rice.

(To be continued.)

(a) *Medical Times*, vol. xvi., page 248 *et seq.*

ORIGINAL CONTRIBUTIONS.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.
[Illustrated by Portraits of Cases.] (a)

(Continued from page 195.)

HYSTERIA.

When I was prosecuting my studies at the Salisbury Infirmary, there resided in the town a near relative of mine, who was a shrewd, clever person. In the circle of her acquaintance was a lady, a spinster, who had arrived at that equivocal age for marriage, forty-five, who was possessed of limited means, but who was, moreover, troubled with some kind of "*fits*" occasionally. My friend invited her to pass a few weeks in the town, at her house, which was accordingly accepted; but very shortly afterwards these "fits" appeared, to the great annoyance of her hostess. But as they recurred again and again, and did not seem to excite any distress on the part of the patient, so they likewise ceased to cause any alarm to the lady of the house. At length, on one occasion, when the visitor went to lie down in the forenoon, preparatory to a fit, my friend seized the opportunity by saying, "Well, my dear Miss ——, if you are going to have a fit today, I'll lock you up in your bedroom, and go out and spend the day with Mr. and Mrs. Arthur ——;" which she accordingly did, and returned to her patient in the evening, whom she found quite well, but highly chagrined at the treatment she had received. Nevertheless, she had so far conquered the "fit mania," that we never heard of any more of such attacks, during the remainder of her residence in the town. Now, had a medical practitioner exercised this, apparently, cruel treatment, he would doubtless have received his congé, and would never have been allowed to set his foot on the threshold of the door again. That morbidly indolent state of mind, which induces and encourages these attacks, also gives rise to that slothfulness of body which is oftentimes so bewildering to the practitioner, that he scarcely suspects the disorder, but readily catches up the notion that there is spinal disease, and treats his patient accordingly. Whereas these females begin by *thinking* they cannot walk, because they *do not* walk, and then the mind is so obtuse that they *will not* walk, but lie in bed for days, weeks, nay, even for years together. I feel assured that the disorder is not bodily but mental; in proof of which they never exhibit so much annoyance when they are made to walk, as they do when you charge home to them such accusations as these, "You are ill-tempered, and won't try to exert yourself;" "This is laziness, obstinacy, and determination to resist all efforts to exercise your legs;" "I should think that you are of a sulky disposition," &c. They pout, swell, boil up, and oftentimes burst out into a violent fit of crying, which I always encourage, by telling them that it will do them good; and so it assuredly does, for, their passionate feelings having thus vented themselves, they become more tractable and more manageable, and at length they really strive to assist you in your endeavours to promote their convalescence, and sometimes finish by expressing much gratitude for your arduous and successful labours, and kind though rough treatment of their bodies. I am well aware that these remarks will not be very favourably received by some of my medical readers, but I can only add, that if I saw through such a case, and felt that the above line of practice was absolutely required, I would rather take my leave of the house and family altogether than I would pander to the wretched state of mind and body of such patients, by dosing them with fetid gums, ether, camphor, ammonia, valerian, &c. &c., and thereby encourage, indirectly, the disorder, fill a long drug-bill, and lead the friends to suppose there was disease, when conscience plainly whispered in the heart of the practitioner there was none. Such trimming policy is beneath an honourable mind, and finds no encouragement there, nor is it fostered, but in the soil of a base and sordid disposition.

CHOREA.

It is useless to occupy the reader's attention with an account of this singular disorder of the nervous system, and especially as I have not much information to give upon the subject, beyond what is already known by the profession; nevertheless I may take the opportunity of remarking here, that the oldest person whom I ever saw with this disease was recently a patient in this hospital, under Dr. Seth Thompson. She was a married woman, twenty-eight years of age, and had been frightened by a strange cat jumping on her back. The excitement of the nervous system was more alarming than I ever remember to have witnessed in aggravated cases of this nature. But the violence of the symptoms rapidly subsided under the steady and repeated exhibition of tartar emetic, in large doses. The Doctor commenced with half a grain every hour, for eight or ten successive doses, and then he continued it, in the same quantity, every four, and subsequently every six, hours, when she obtained tranquil and refreshing sleep, and gradually improved under this treatment alone, and left the hospital perfectly well.

I may just observe that I have since had occasion to admire the same successful line of practice adopted by this gentleman in other cases of cerebral excitement, amounting almost to mania. One case, especially, is before my mind's eye: it was that of a gentleman's servant, who was brought here in a state of the greatest excitement. There had been various moral causes to produce this disorder, but when he arrived here we found him most unmanageable, so that we were compelled to use severe but firm language, and he was thus persuaded to keep in bed without any restraint from straps, strait waistcoat, &c. &c. He now commenced the tartar emetic, in the same doses as the female patient, and at the same intervals, when the stomach became nauseated after five grains had been taken, and he obtained eight or nine hours of tranquil sleep, and awoke quite rational and calm, and his convalescence went on favourably from that time. He was ordered a purgative also of calomel and colocynth, which tended to relieve his head. He has since returned to his master's employment, and continues to be quite healthy, with the exception of occasional attacks of bilious headache.

PARALYSIS AGITANS. PARALYSIS E VENENO.

The former of these two diseases is only met with in advanced life, as its analogous affection, chorea, is only met with in youth. It is needless to occupy any space upon a subject which is so little understood, and the opportunities for studying which are so rarely met with in hospitals.

But under the head of the second title we might enumerate palsy from imbibition of lead, mercury, arsenic, &c. &c. In the former of these metallic poisons the countenance assumes a dingy, fawn, or dirty fawn colour, the intellects become impaired, and the gait is awkward and unequal, and there may probably be found palsy of some of the extremities; the paralysis is usually most observable in the right hand (if he is a right-handed man, as a house-painter), and the wasting of the muscular substance is most apparent in the adductor pollicis and extensors of the hand and wrist. The gums, if there exist any tartar on the teeth, are always tinged with a pale blue line in such patients; but if the tartar is absent, the coloured line is never present, at least, in any marked degree. This appearance, and the arguments in favour of the presence of a blue gum, being a test of the existence of lead in the system, are severally entered into, and ably discussed, by our scientific dentist, Mr. Tomes, who has been at much pains to ascertain how far the blue gum may be relied upon as a morbid product. I must, therefore, refer my readers to the sensible observations of this gentleman, which are given in a series of lectures, delivered at the medical school of this hospital, in 1846, and which are now in the course of publication.

There is an excellent pamphlet by a non-professional gentleman on the subject of prevention of lead colic, by means of the sulpho-vinic acid, taken in the form a drink, the mode of preparing which he there details. Some such formula is used by the men employed in a white-lead manufactory in Lambeth, but the masters find it necessary to lay down compulsory rules, in order

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

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to keep the men to its daily use, though the latter state, that as long as they adhere to this beverage, even in the hottest summers, a period of the year most favourable for the production of colic, a case scarcely ever occurs amongst 100 men. The form here alluded to is used by the author of the above paper in a large white-lead manufactory at Manchester, and during the first year of its trial in 1840 there had not been a single instance of colic amongst 200 men.

The disturbance of the mental faculties, in constitutions impaired by lead poison, is generally the result of slow ramollissement of the brain and spinal cord;-fatuity, loss of memory, epilepsy, and premature decrepitude are usually the sequelæ of this and other forms of slow metallic poisoning. We have had several instances of palsy from mercury in water-gilders, in whom iron, sarsaparilla, shower-baths, and slight shocks of electro-galvanism have produced striking benefits. The last case occurred amongst Dr. Mervyn Crawford's patients; and the above treatment so far benefited him that he left the hospital with an intention of resuming his work, although he was strictly charged to leave the trade and obtain his livelihood by some other employment. The only case of paralysis from arsenic, taken as a poison for a suicidal purpose, which I have witnessed, occurred many years ago. Sarah Harris, aged twenty-two, took about a drachm of arsenious acid, in consequence of disappointment in courtship, and was brought here in a few hours afterwards, and admitted under Dr. Hawkins, January 7. The surface was cold; extremities livid; pulse scarcely perceptible; and, in fact, she appeared to be rapidly sinking. She had vomited some dark fluid before admission, it was stated. A warm bath, sinapisms to the epigastrium and feet, with some mild stimulants, were administered, when she gradually recovered from this state of collapse, and ultimately became convalescent from all the acute symptoms of gastritis which supervened, by the repeated application of leeches to the region of the stomach; but, when recovery was so far advanced as to permit her to dress herself, it was found that the lower extremities were so feeble that she was unable to stand. These paraplegic symptoms increased week after week, so that, although her general health had become tolerably good, yet, at the expiration of two months from the time that she committed the act, she had palsy and complete anæsthesia of both lower extremities. She was discharged, and subsequently underwent a regular course of electricity three times a week, when the power of the lower limbs gradually returned, and she walked to the hospital to offer us her thanks, having regained the perfect use of the legs.

As I may not have occasion to allude to the influence of mercury upon the system in any succeeding pages, I will take this opportunity of observing that for many years past I have noticed a singular peculiarity in the gums of those patients who are taking mercury *before* ptyalism presents itself. I requested my friend Mr. Tomes to investigate the subject amongst the dental patients under his care, and that gentleman has described the morbid appearance in so concise a manner that I cannot do better than transcribe his clever observations, from a recently published lecture on diseases of the gums.

"In salivation produced by mercury the effect is first discernible upon the gums. Some hours previous to the coming of the metallic taste, and to the fetor of the breath, and also to the soreness and discomfort which mark the influence of mercury on the system, the gums show indications that these conditions are about to appear; in fact, the patient will in a few hours be salivated. The state of gum I am about to describe is, in fact, a premonitory sign of ptyalism, for should it appear, and the mercury be immediately discontinued, yet salivation will come on. The sign is this: the adherent portion of the mucous membrane of the gums assumes an opaque white colour, contrasting strongly with the non-adherent portion, which preserves its natural hue or becomes red. The free edge of the gums is moveable, but that part which lies over the alveoli is firmly tied down to the periosteum; and, as the edges of the alveoli present a festooned line, so the whitened mucous membrane presents a corresponding festooned line. Again, where the mucous membrane is loosely reflected from the gum to the cheek, the natural colour is preserved. The whiteness of gum is produced by an increased secretion of epithelium, which, from being thicker and more opaque, renders the colour given by the vessels to the subjacent tissues less apparent.

"The surface of the mucous membrane, when deprived of epithelium, is studded over with innumerable small conical elevations, or papillæ. The thickened epithelium is readily rubbed off the tops of the papillæ, while it retains its full thickness in the hollows between them; thence, if closely inspected, the gums will not be seen to present a uniform white hue, but a mottled aspect, and this because the epithelium is thin over the papillæ and thick between them, and therefore more colour will show through at one part than at another. With the increased thickness there is a decrease of tenacity between the scales that form the epithelium, for the surface may be much more readily rubbed off than when in its natural state.

"This curious and useful premonitory sign of coming ptyalism was, I believe, first noticed, and its value pointed out, by Mr. Corfe; at all events, he first drew my attention to the fact, and I am not aware that it has been described by any author. Since, however, Mr. Corfe mentioned the result of his observations as to the constancy of the sign, I have verified for myself its presence in all cases of salivation that have come under my notice, and from these I have written the foregoing account.

"If you would make use of this indication in your practice, it will be necessary that you should carefully note the state of the gums at the time the mercurial treatment is commenced, for it is quite possible that other agents may produce a similar state of gum, and that such may exist previous to the exhibition of mercury." (a)

The concluding remarks are important, inasmuch as I have frequently noticed that agents which stimulate the glandular system on the one hand, or the mucous surfaces on the other, have a tendency to produce the same appearance on the gums: thus I have noticed the change in patients under the influence of iodine, and in those who have taken repeated doses of croton oil, colchicum, &c. Nevertheless, one point is quite certain that, if the gums are observed before mercury is given, and no such white line is visible, its appearance is a sure forerunner of ptyalism, and presents itself twelve or fifteen hours before the individual is sensible of a "sore mouth." An interesting and highly practical question then arises out of this fact: Is it necessary to continue the use of mercury to the same amount when this line shows itself, as before its appearance; or, in other words, is actual ptyalism necessary to satisfy the practitioner that the system is under the influence of this therapeutical agent? I believe that it is not necessary, and that, when the white line appears, the power of the remedy has already produced its influence over the inflammation, for the cure of which it was exhibited, so that the patient may be kept in a state of gentle mercurial erethism, without suffering from the too often frightful forms of ptyalism which the repeated doses of mercury produce. A case of acute endo and exo carditis lately occurred in which the constant use of calomel with blue pill during fifteen days failed to produce ptyalism, yet the white line above described was very marked after the first two days of the administration of the mercury: the lad gradually progressed towards a shattered convalescence. There was an attrition, exo-cardial sound, and a deep endo-cardial murmur throughout the first fortnight of his illness; the former disappeared, but the latter never left the ventricular sound at the expiration of six weeks from his attack.

(a) Lectures on Dental Physiology and Surgery, delivered at the Middlesex Hospital School. By John Tomes, Esq., Surgeon-Dentist to the Hospital.—"Medical Gazette," p. 571, 1847.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meetings of Dec. 13 *and* 20; M. Brongniart in the Chair.

Chloroform.—Professor Roux stated that he had now employed this anæsthetic agent in several instances, and that it produced loss of consciousness more rapidly, but for a shorter time, than ether: has preferred M. Charrière's apparatus to any other. Professor Velpeau was of a different opinion: he believed the insensibility to be more prolonged after inhalation of chloroform, than after ether: the handkerchief was the best inhaler. M. Gruby said that arterial blood was not changed in colour by chloroform, whereas it grew dark by etherization: and also that animals who died after inhalation of chloroform could still serve as nutriment—an advantage not presented by the flesh of those killed by ether.

Influence of the Spinal Nerves on the Contractions of the Heart. — In a former paper, M. Magendie showed the intimate connection between sensations of all sorts, whether agreeable or painful, and the frequency and energy of the ventricular contractions of the heart. The object of his present communication was to ascertain the relative degree of influence exercised upon the heart by the motor and sensitive nerves. He concluded, from numerous experiments, that under the influence of the same stimulus, the cardiac contractions were more powerful when the sensitive nerves were irritated, and that the definitive abolition of sensibility, in these nerves, also destroyed the reaction of the heart.

ACADEMY OF MEDICINE.

Meeting of Dec. 22; M. Begin in the Chair.

Election of Office-bearers. — M. Royer Collard was elected president, and Professor Velpeau vice-president, for the ensuing year.

Statistics of Pregnancy, by Dr. Devilliers.—This gentleman concludes, from his researches, that conception takes place as frequently a short time before, as in the days which immediately follow, menstruation; that the fœtus varies considerably in weight at the same period of utero-gestation; and that labour is more generally premature than delayed. According to Dr. Devilliers, the differences observed in the duration of pregnancy depend upon the more rapid development of the uterus or of the ovum: thus labour is prematurely occasioned when the ovum has attained its full size before the womb has acquired its entire development, or, reciprocally, when the uterus has arrived at its proper degree of physiological hypertrophy. Labour, on the contrary, will be retarded when the ovum, although well formed, is contained in a womb not sufficiently irritable to expel it, or when one or the other, *i. e.*, fœtus and womb, have experienced any delay in their development.

On the Nature and Treatment of Asiatic Cholera. By Prof. Giacomini, of Padua.

One of the greatest errors of modern pathologists (says Professor Giacomini) is to admit that a disease may exist without its essential and pathognomonic symptom. This error has arisen from some symptoms being improperly considered as essential. Thus in cholera all those occurrences which sometimes fail, particularly when cases terminate fatally without their presence, should be set aside, and not looked upon as essential to the disease. Vomiting and diarrhœa must, therefore, be considered as secondary symptoms, for not only their violence is not in harmony with the severity of the cases,

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but they do not last throughout the illness, and are completely absent in what is called dry cholera, one of the most fatal forms of the epidemic. Amongst the essential and primary symptoms of the disorder we must number, in the first place, the heat, anxiety, and oppression experienced in the precordial region; the slowness of respiration and involuntary sighing; the successive irregularity, depression, and disappearance of the pulse; the general sense of cold; the partial or total suppression of urine; the deathlike paleness; the subsequent blue colour observed on the body; the swelling of superficial veins; the instantaneous emaciation of the entire body; and finally, the asphyxia. These symptoms all tend to show the origin of the disease to reside in the sanguineous vascular system. They indicate in a manifest manner (?) a violent and universal acute phlebitis. By this name Professor Giacomini indicates a disorder originating in the ganglionic nerves distributed in the venous parieties, and propagated to the vascular walls. The tissue of these ganglionic nerves does not admit of our usual means of investigation, and their irritation is betrayed merely by an alteration of the functions of the parts to which they are distributed, and to which they communicate their impressions, in health or in disease. Now, the first effect of inflammation on the venous system is to cause venous diastole to become more powerful, more lasting, and even permanent. This simple morbid change explains all the symptoms of cholera; by the dilatation of the veins a vacuum is immediately formed, in consequence of which fat and the other fluid and semi-fluid substances contained in the cellular tissue are rapidly absorbed; hence the presence of oleaginous matter in the blood, and the rapid loss of size and of flesh. In proportion as the dilatation of the veins tends to become more permanent, their disgorgement into the right cavities of the heart also becomes more difficult; this causes the excessive oppression, sighs, and abortive efforts of respiration. The left ventricle and arteries receiving less blood, the pulse gradually sinks; the surface of the body grows colder and paler; the kidneys have no more materials for their secretion; asphyxia is imminent, and the veins in the meanwhile remaining dilated, the colour of the skin every instant becomes darker from the arrest of the blood.

The important and special anatomical alterations consist, therefore, not in the appearance of the intestines, but in the viscid and oleaginous condition of the blood, and in the dilatation of the veins, which clearly indicates their hypersthenic condition.

Starting from this ingenious but, to say the least, singular theory of asiatic cholera, the professor naturally reprobates the use of stimulants at any period; but, on the contrary, recommends ice internally, the cold bath, and afterwards venesection. The reason assigned by the professor to his preference for this medication is, that the function of absorption being almost entirely suspended in the gastric cavity, the introduction of medicines into the stomach merely encumbers the abdominal viscera without advantage; after the cold bath, from which Professor Giacomini asserts having derived the greatest benefit, has permitted phlebotomy, mustard poultices and blisters should be applied to various parts of the skin; not with a view of producing revulsion (which Professor Giacomini calls a chimera), but to give power to the absorbents; the blisters, therefore, should only be subfacients, and should not produce vesication.

D. M'Carthy, D.M.P.

Diagnosis of the Cause of Paraplegia.—Professor Cruveilhier asserts that paraplegia depending upon compression of the spinal chord can readily be distinguished from that caused by organic alteration of that nervous centre; when the spinal chord is merely compressed, neither motion nor sensation is abolished in the lower extremities, but the influence of volition upon the movements of those limbs is entirely abolished. In organic lesions of the chord, sensation or motion, or both, are more or less considerably diminished in the extremities.

A Curious Feature of Yellow Fever.—Dr. Kelly, of Mobile, mentions that in what are termed the walking cases, the disease proceeds so insidiously that the first indication of danger, sometimes, of the attack is the appearance of the black vomit. An instance of this kind appeared in New Orleans. A Frenchman complained of being unwell. He consulted a medical gentleman, to whose residence, about a mile distant from his own, he walked every day. On the fourth day of the attack, Dr. Kelly saw him, and the first thing that met his view was the black vomit. Coma and death soon followed. A man went to the house of a medical practitioner, and said that his friends had persuaded him to consult a physician, although he himself believed there was no occasion for it; whilst conversing he asked for a basin, and threw up a large quantity of black vomit. Now, in all these cases the disease proceeds through its several stages, but the symptoms are of a less open and decided character. It is supposed by some that the attack takes place, or that the disease is developed, at the moment when its characteristic phenomena become fully manifest. In the Guzzerat fever, described by Gibson, of the Bombay medical department, although the debility and extreme prostration occurred rapidly, the disease, nevertheless, is stated to have passed through its regular course.

Cretinism.—Dr. Buckminster Brown, who has recently visited the Hospital for the Cure and Education of the Cretins, on the Abendberg, canton of Berne, Switzerland, says that cretinism is undoubtedly one of the numerous forms in which scrofula manifests itself. It occurs in that variety of temperament which has been denominated the bilious or torpid; in children of dark complexion, short neck, head large, dilated pupils, who have tumid abdomen, and are generally of a lax and spongy fibre. Some of the external signs of scrofulous diathesis may be found upon the idiot, and they are such as indicate the sanguine or irritable temperament, and in him the ravages of this disease are much less apparent. The head is well sloped, or, instead of being too large, with a disproportioned protuberance of the occiput, it is too small, and gives the idea of compression; and the features are well formed. Such are some of the chief distinctions. There is also a difference in the moral qualities. The idiot is often peevish and malicious, constantly doing injury to his companions, without provocation, striking, pinching, pulling their hair. In this respect the true cretin is totally different. They may have occasional bursts of anger when provoked, but in general they are kind and amiable in their disposition, affectionate, and easily won to place confidence in those by whom they are well treated, and will fondle about them like a dog receiving the caresses of his master. Cretinism is often found in close companionship with goitre in Switzerland; and it is also often combined with paralysis. In the efforts to accomplish a cure it is found absolutely necessary for the patient to have an entire change of scene and air. In the next place there must be gymnastic exercises, by which the frame is invigorated and the lethargic energies roused. To these are added the other hygienic auxiliaries, good wholesome food, frequent bathing, the douche, friction, and electro-magnetism. In one case in the hospital the nervous system was so enfeebled, that for six months the patient was insensible to the powerful action of this latter agent. After that time he began to feel it severe—soon susceptible to the slightest touch. Moral means are of vast importance, such as gentleness, kindness, and affection. After many long and weary trials, unexpectedly, the child will find his speech; at another leap some simple idea will make entrance, and, the task thus far accomplished, the foundation is laid upon which is built the whole after structure.

Delirium Tremens and Delirium Ebriosorum.—It is impossible, Mr. Solly observes, to give in words all that distinguishes these two diseases; they must be seen frequently to be appreciated. But the following will assist in their diagnosis:—The head and skin generally is cool and moist in delirium tremens; dry and hot in delirium ebriosorum. The pupil varies in both according to the stage; in the early stage of both it is generally contracted, in the latter stage dilated. The conjunctiva injected and red in delirium ebriosorum; the reverse in delirium tremens. The mental derangement in the former is more allied to an exalted, excited state of intellect; in the latter it approaches fatuity and depression. The tongue is generally pale and furred in delirium tremens, sometimes unnaturally clean and red; in delirium ebriosorum it is usually dry, and sometimes brown; but this is no certain guide. The pulse is most uncertain, for, as all inflammatory affections of the brain are depressing in their effects on the heart's action, so do we find that the pulse is not hard and wiry in the hyperemic affection, which, however, never amounts to one acutely inflammatory. Still, on the whole, there is less power in the beat of the artery, and that more varied in delirium tremens than in delirium ebriosorum.

On Examination of the Ear.—There are two methods, says Mr. Wilde, of Dublin, of examining the ear, which, from their frequency in this country, are not only useless but highly injurious—syringing and probing indiscriminately without proper inspection of the parts. The former is of daily occurrence. A patient labouring under deafness, or violent pain of the ear, is examined either with the unassisted eye, or by means of some of the old divaricating specula, most probably in a badly lighted apartment—at all events, without the membrana tympani being brought into view, a dark cavity being all that the explorer is able to perceive; it is deemed advisable to try what might come out by squirting hot water into this dark passage for the ensuing quarter of an hour; but, nothing satisfactory following this operation, the diagnosis that there is no wax in the ear is accordingly made. Now, there may be a collection of cerumen, which may not be got rid of by this operation; while, if the cause of the pain or deafness is owing to an inflammatory condition of the auditory canal and its membranous extremity, a decided increase of the symptoms is produced by this unnecessary and cruel proceeding. Inflammation is frequently produced by unnecessarily syringing the ear when no wax was present. The practice of exploring the ear by means of a probe cannot be too strongly condemned, and yet that it is frequently resorted to surgeons are well aware. To introduce a probe down to the membrana tympani, without having that membrane fairly in view, and without a speculum being passed down to it, but merely for the purpose of satisfying the examiner as to whether the membrane is perforate or not, is a most unjustifiable proceeding.

Chronic Arthritis Treated by Nitrate of Silver Ointment.—At the Hôtel Dieu and La Charité Hospitals, in Paris, MM. Guerard and Briquet employ, in chronic arthitis following acute rheumatism or any other cause, an ointment containing nitrate of silver. At the Hôtel Dieu, five parts of the nitrate are rubbed down with thirty-two parts of lard. The articulation is well rubbed with it once a day, and a poultice is then applied over it, to favour absorption. This treatment is continued until the disappearance of pain. The epidermis becomes shining, yellowish, or almost bronzed, and sometimes blackened for some days. At La Charité the ointment is not so strong, and is composed of only one part of the salt to thirty-two of lard; the good results, however, are not so well marked. A similar treatment is at present followed by M. Jobert, at St. Louis, in cases of white swelling.

Scabies Treated by Olive Oil.—The method consists in covering the affected parts with oil, slightly heated to favour its absorption, three times a day. The itching completely subsides in three days; the eruption dries up and desqua-

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mates, the redness and swelling disappear, and the patient is generally cured in twelve days. The application should be continued a few days to ensure success. The almond, linseed, nut, and other oils, and even simple lard, will produce the same effect.

Morbid Secretion of Milk.—After the extirpation of a carcinoma of the breast, Chassaigne found in the diseased mass a distinctly purulent and milky fluid, which he considered to be milk. He also examined the carcinomatous breast of another woman, and found milk, which, as a bluish fluid, dribbled constantly over the cut surface; it was present in all the yet healthy portions of the gland, and could be squeezed from the nipple. Milk globules and colostrum corpuscles, exactly as in normal milk, were found in this fluid. Hence it would appear that milk may be secreted as a consequence of turgescence of the gland from any cause.

Turning in Deformity of the Pelvis.—"I have often been struck," says Dr. Simpson, in "The Provincial Journal," "with the circumstance that apparently, when the child presented preternaturally, and in consequence ultimately passed with the feet or pelvic extremity first, the labour seemed frequently both easier and safer to the mother and infant than when, in other labours in the same patients, the head of the fœtus happened to form the presenting part. In this way mothers who had always suffered under very severe and instrumental labours when their children presented by the head, were, not unfrequently, fortunate enough to escape far more easily when, at other times, the infant chanced either to present originally with the feet, or had the feet artificially brought down during the labour in consequence of the infant lying transversely, with the arm or shoulder constituting the presenting part. The history of some few cases evidently showed that, when the distortion and obstruction in the maternal passages were so great as to have invariably necessitated in all the previous labours the death of the infant by craniotomy, a living child was occasionally at last born, when it happened to pass or to be brought through the contracted pelvis as an original or artificial footling presentation. In such instances the presentation of a hand or foot, when first discovered at the commencement of labour, has been regarded as an undoubted source of increased danger and difficulty, but it has at last more frequently proved a source of increased safety to the mother and the indirect means of preserving the infant."

Treatment of Gangrenous Syphilitic Sores.—Dr. Oke says, in a paper "On the Opinions and Practice of the late Mr. Pearson on Syphilitic Disease," "When extensive gangrene has taken place, it is not at all times easy to decide whether mercury ought to be given freely or not. If gangrene, however, has taken place under the use of mercury, it should be immediately discontinued, and the use of tonics, with a generous diet, substituted. If, previously to infection, there existed a delicate, weak, or cachectic condition of the constitution, even if no mercury had been used, the case should be treated with tonics, especially the iodide of potassium, opium, and a generous diet. But if the primary sore quickly followed exposure, spread rapidly, with pain and inflammation, and soon became gangrenous, and if the general health had been previously unimpaired, then the destruction of the parts may be fairly referred to the intensity of the virus, and the free use of mercury at once employed. When there is a sloughing sore, with phymosis, and hemorrhage takes place, if the prepuce cannot be retracted it must be divided, although in such a state of the parts such a step is most undesirable. If the bleeding be not considerable, other means may be previously tried, such as the injection of warm porter or wine between the prepuce and glans. The hemorrhage generally springs from the glans penis, and, although its texture even in a healthy state is scarcely fit for the needle, and of course is much less so in a state of disease, it will be, nevertheless, right, if profuse bleeding continue, to make the attempt to stop it by such means, taking care to include a portion of the surrounding parts in the ligature. If this method should not succeed, the bleeding vessel may be compressed by the hand of an assistant, as long as it may be necessary, with a bit of sponge, or puff-ball, or a little bag, containing some powdered sulphate of copper; and, should these means fail, turpentine, boiled over a candle in a spoon, may be poured upon the part from which the blood issues; or, the actual cautery, all other remedies proving of no avail, may be applied. In using the severe methods the prepuce must be divided. At first it is best to make the division by a single longitudinal incision, in order to liberate the parts, and to finish the operation after the sloughing shall have ceased. If mercury be found to aggravate the local disease, it must be discontinued, for it is better that the system should continue under the influence of the syphilitic poison than that the organs of generation should be destroyed, and the general impaired by means of mercury."

Treatment of Primary Syphilitic Sores in Women.—When chancres are accompanied by much pain and inflammation, they may be washed with a lotion of calomel and lime-water, or the yellow wash. By these means they will be found generally to heal rapidly; but, if the sores be very large, they must be dressed with mercurial cerate. When the inflammation and tumefaction of the labia nymphæ are so great as to confine the patient to her bed, poultices, as well as the above-mentioned dressings, must be applied; and, if gangrene has taken place, the stale-beer poultice may be used, together with the internal use of bark, mineral acids, &c. When there is enlargement and induration of the nymphæ, which have not been beneficially affected by the use of mercury, poultices, the vapour of hot vinegar and water or spirit of wine, nymphotomy may be performed.

Induction of Premature Labour.—Mr. Turton read a paper to the Sheffield Medical Society on the induction of premature labour, in which he stated that the induction of premature labour might be regarded as justifiable in two classes of cases. First, where delivery has been repeatedly effected by the use of the lever or forceps, the children being still-born; or, secondly, where the perforator has become necessary from some insurmountable obstacle to the delivery of the child, especially from that deformity of the pelvis which proceeds to actual distortion. Different plans have been proposed: for instance, the rupture of the membranes, or the separation of a portion of the membranes from the cervix uteri. Where the deformity is not very great, this plan has decided advantages; but where the distortion is extreme, it will not at all times be possible. In the first case a blunt instrument, as a metallic bougie, may be used, either to rupture the membranes, or to separate. It is not essential to have an immediate discharge of the liquor amnii, neither is it to be positively considered that rupture has not been effected because the discharge does not immediately ensue. It is a matter of some importance to keep the patient at rest until there are indications of uterine contraction, in order that the system may be prepared for the process of parturition. It is always best to allow the process of uterine contraction to commence leisurely, without resorting to the secale, which, possessing an expulsory power, and not a dilating one, should only be used as a powerful auxiliary when the cervix uteri is developed. The first case was one in which premature labour was induced in order to save the life of the child. The patient had been delivered two years before with very great difficulty and hazard, so much so that it was recommended most strongly if she again became pregnant, to produce premature labour at or about the seventh month. At that period the cervix and os uteri were dilated, and with a blunt instrument the membranes punctured; when some degree of expulsory effort was established, the secale was administered in the form of diluted essence, increasing the dose as the effect increased, so as ultimately to produce sufficient expulsory effort. This was accomplished at the end of a week. In a second case labour had been very difficult and tedious, from the existence of deformity. The aperture of the pelvis was very small on the left side, rather larger on the right, but by no means affording space for the exit of a child, even at the seventh month. There was also great spinal deformity. In the fifth month of pregnancy an attempt was made to reach the os uteri with the fore finger of the right hand, supposing, from the pendulous abdomen, that it would be found towards the promontory of the sacrum; this was not the case, and by using the left finger it was found over the symphisis pubis. The membranes could not be separated from the cervix, as the arch of the pubis was too much contracted to allow of the introduction into the vagina of any part of the hand. A metallic sound was then introduced, in order to rupture the membranes, as far as he could venture to do. No water escaped; it did so in the former case. She passed a good night; a dose of castor oil had evacuated the bowels; micturition free; no pain in the uterus, but some in the back; in good spirits. She went on this way for three days, when she complained of pain in the back and loins, as if uterine contraction were commencing, and there was a slight watery discharge. In order to aid this effort, the ergot was ordered to be taken thrice a day. Three days afterwards, uterine efforts well marked; discharge much more abundant, and rather fetid. To continue the ergot every six hours. The pain and expulsive efforts gradually increased, and on the eighth day after the first attempt to induce labour, the fœtus, enveloped in the membranes not fully ruptured, was expelled. The placenta soon followed. No hemorrhage, neither after-pain of any moment. The uterus readily contracted. The fœtus was a healthy, well-formed one, about the fifth month. From these cases the following facts are deduced:—1. The safety and value of the induction of premature labour. 2. That the means used are both safe and, in general, easy. 3. That the ergot is a valuable auxiliary, and that the best time for its administration is when we are satisfied that utero-gestation is arrested, as indicated by the pains and the muco-sanguineous discharge.

Efficacy of Oxgall in Removing Impacted Fæces.—Dr. Edward Vanderpool, of New York, relates in "The New York Journal of Medicine," the case of a man, forty years of age, of full habit, whom he attended, who was suffering from pain and great distress in the right iliac region, preventing rest and sleep, and causing constant moaning. He had been confined to bed a fortnight with these symptoms, during which time he had been treated antiphlogistically for peritoneal inflammation; calomel, cathartics, and castor oil had been repeatedly given, producing only a slight fæcal evacuation every day; calomel and ipecacuanha, and calomel with Dover's powder, had been continued in small doses; his mouth had been touched for more than a week; leeches had been repeatedly applied, and at last a blister. The right iliac region appeared preternaturally full; a hardness was here discoverable, as of a tumour lying deep in the abdomen, occupying the seat of the cœcum and ascending colon, which was very painful on pressure. For two years he had been subject to colicky pains, for which he would every week or two take a cathartic dose of calomel at night, and follow it with salts in the morning. A small motion would be the only result, with the invariable feeling of not being relieved. The inspissated oxgall was prescribed, in doses of eight grains, three times a day, and enemata of diluted gall, to the amount of two quarts, night and morning; broth and farinaceous drinks. The first enema extended to the part affected, and produced a quantity of scybalous fæcal matter, with some mucus. Some alleviation followed this evacuation. The enema was repeated next morning and evening, with the effect of an increased quantity of old fæcal matter, and less pain afterwards in the iliac region. Considerable exhaustion following the morning enema, it was

thought better to omit it in future, and give eight grains of the gall four times a day, and use the injection at bedtime. This course was pursued for ten or twelve days, resulting with a voluntary fæcal evacuation in the morning, which had the appearance of long impaction, and a quantity of the same in the evening, believed by the patient to have been by him two years. The abdominal distress abated as this old fæcal matter passed off, and the mucus daily lessened in quantity. He convalesced steadily without any other medicine, and was soon discharged cured.

Constitutional Syphilis of Infants. — MM. Trousseau and Laseque consider that syphilis may be transmitted, either in its primary or secondary form, directly from the mother to the infant; but say there is no proof of the transmission of tertiary lesions except as a consequence of the primary or secondary forms. The appearance of syphilis in the infant takes place not before the second week after birth. One of the earliest and most characteristic signs is a coryza, which begins with mucous secretion, followed by serous and purulent discharges, and by hemorrhage of greater or less frequency, and terminating in caries and deformities of the nasal bones. This is considered to be an affection peculiar to syphilitic infants. There is also a particular discoloration of the skin, which becomes tarnished and loses its transparency, without any preternatural turgescence or shrinking. The colour is equally diffused on the neck and trunk; the greater its diffusion, the less, generally speaking, is its intensity. The tarnished hue of the skin generally lasts more than a week. The occurrence of an eruption, with other valuable signs, is sufficient to place the conclusion on a firm basis; the colour, however, cannot always be relied on as a means of diagnosis. In the subseqnent progress of the disease the infant becomes cachectic; accidental wounds assume an unhealthy aspect, and heal with difficulty; the umbilical cicatrix is apt to remain open, and to fungate. Sometimes, though by no means constantly, there is gradual emaciation; the violence of the internal disorder bearing no proportion to the intensity of the external signs. The infant does not take the breast regularly; sleep is short and interrupted; it cries frequently and without appreciable motive; and, concurrently with these symptoms, diarrhœa is established, which it is exceedingly difficult to subdue. The mouth and anus, when the mucous membrane joins the skin, are cracked and fissured, and the discharges by stool are often bloody. Under these circumstances the infant, impoverished and weakened, falls a victim, either to the chronic disorder, to the reigning epidemic, or some accidental acute disease. The fatal sinking is, in general, extremely rapid, and not preceded by the usual warning circumstances; and the inspection of the body does not explain the rapidity of the fatal termination. The most constant lesion is serous effusion into all the cavities.

Chorea Treated by Large Doses of Tartrate of Antimony.—M. Salques, of Dijon, had recourse to tartar emetic, in a case of chorea of five years and a half's standing, and which had resisted valerian, oxide of zinc, purgatives, cold baths, and narcotic frictions of the spine. For a week thirty centigrammes were given daily, in a drink. The first dose produced strong vomiting, and an abundant diarrhœa; the others caused no apparent effect, with the exception of an anorexia, and the cessation of the chorea. The fourth day, ten leeches were applied to the neck to diminish a slight cerebral congestion. A permanent cure followed.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

(J. M. Arnott, Esq., F.R.S., President.)

CASE OF LARYNGITIS, ACCOMPANIED BY THE FORMATION OF FALSE MEMBRANE IN THE TRACHEA AND BRONCHI, IN WHICH TRACHEOTOMY WAS SUCCESSFULLY PERFORMED.

By T. A. Barker, M.D., Physician to, and Lecturer on the Practice of Medicine at, St. Thomas's Hospital.

A woman, aged twenty-two, four months pregnant, after delicate health, and symptoms of commencing phthisis for nine months, and pain on deglutition for three months, was admitted into St. Thomas's Hospital with chronic laryngitis, and signs of tubercles, in an an early stage, at the commencement of January, 1847. In a few days the symptoms became urgent, indicating the necessity of immediately opening the trachea. The operation was performed by Mr. B. Travers, junior, and the woman was nearly asphyxiated before it was completed, in consequence of a false membrane formed in the trachea, where the opening was made, blocking up the tube below the opening, having probably been forced downwards by the scalpel. Five days after the operation there was extensive hemorrhage from the wound, and, together with the blood, a large quantity of fibrinous matter, evidently casts of bronchial tubes, was expectorated. The wound gradually closed, and there was no return of dyspnœa; but, as the tubercular disease in the lung advanced, there was incessant cough, and the stomach became very irritable. Six weeks after the operation the patient died exhausted. The mucous membrane of the larynx and upper part of the trachea was completely destroyed, and both lungs, especially the right, were thickly studded with tubercles in an early stage. As life was prolonged for six weeks, and death was not ultimately caused by obstruction in the larynx, the author considered this a successful operation, though performed under unfavourable circumstances. There was ulceration of the trachea at the part where the opening was made, which prevented the use of a trachea tube, on account of the irritation it excited; there was false membrane both in the trachea and bronchi; there were tubercles in the lungs; the patient was exhausted by copious hemorrhage on two occasions, and was much depressed in mind, nevertheless she survived for six weeks.

NOTES OF A CASE OF MALFORMATION OF THE HEART.

By Dr. T. B. Peacock.

In this case, which was alluded to at the close of Dr. Peacock's paper in the last volume of the Society's "Transactions," there existed a septum dividing the sinus from the infundibular portion of the right ventricle, and allowing of communication between the two cavities only by an aperture of sufficient size to admit the point of the forefinger. The case was particularly interesting, from permanent and marked cyanosis having been present during life, though there existed no other imperfection in the heart, and consequently no intermission of the venous and arterial currents of blood. The subject of the affection was a female child, five years of age.

ETHNOLOGICAL SOCIETY.

Vice-Admiral Sir Charles Malcolm, Vice-President, in the chair.

Rev. Tullie Cornthwaite, M.A., Professor W. E. Buckley, Rev. W. Norman, M.A., George Wythe Daniel, M.D., and Messrs. N. S. D. Harris and Philip Francis Dart, were elected fellows.

The papers for the evening were—1. "Report of the Ethnological Sub-section of the British Association at Oxford, by Dr. King, Hon. Sec. 2. "On the Natives of the three Kingdoms of Ambriz, Ambrizette, and Musula, Southward of the Congo," by W. F. Daniell, Esq., read by Dr. King.

The maritime territory to which Mr. Daniell directed the attention of the society embraces a tract of coast, above 130 miles in length, extending from Cape Padron, the south-western point of the river Congo, as far as the Rio Dandé. The natives of Ambrizette are much inferior to the tribes to the southward, and have not attained that degree of civilization. Ambris originally constituted a fifth of the opulent principality of Bamba, under the title of Quitungo. According to oral tradition, after the dismemberment and final dissolution of the seven principalities which comprised the supreme monarchy of the Congo, their country was invaded by a Portuguese army, who erected a number of fortresses on eligible sites. The tyranny and exactions of the invaders gave rise to a guerilla system of warfare by the natives, which ultimately led to the extermination of the Portuguese. From this period they enjoyed full liberty under kings selected from the higher class of chiefs. The inhabitants of both Ambriz and Musula, though closely allied in physical formation, language, and other national peculiarities to the tribes resident on the banks of the Congo, yet offer some distinctive features that apparently incline to establish their connection with other races whose exterior attributes are not altogether in conformity with those derived from a more primitive source. There can, however, be no difficulty in assigning the primary origin of the various tribes that occupy the lowland regions placed in the neighbourhood of some great river, such as the Congo, a stream which, penetrating an immense distance inland, may be supposed to furnish the ordinary means by which the tidal efflux of population had gradually approached the seacoast. There are other causes also: thus, the assimilation of one black race with another may be imperceptibly effected either by subjugation and consequent colonization, by the liberation and adoption of slaves of foreign extraction, and by intermarriages with distant nomadic tribes. An analytic investigation into the structural outlines of the people of Ambris will point out unequivocal proofs of a dissimilarity from those tribes which have conjointly descended with them from one common parentage. This is well exemplified by a comparison with that uniformity of organization which yet prevails among the *habitans* of certain districts on the banks of the Lower Congo, who, in consequence of endemic influences and a less intermixture with other tribes, may be taken as the true typical conformation of the black races in this portion of Western Africa.

STATISTICAL SOCIETY.

Lieut.-Colonel W. H. Sykes, Vice-President, in the chair.

Eleven gentlemen were proposed as fellows. The subjects for the evening were—

1. "Report of the Statistical Section of the Oxford Meeting of the British Association," by Joseph Fletcher, Esq., Hon. Sec.; abstracts of the paper upon which Mr. Fletcher founded his report have already appeared.

2. "An Analysis of the Returns to the Stamp-office of the Shareholders in the Joint-stock Banks," by G. W. Gilbart, Esq. Returns have been made according to the act, passed in the year 1844, for renewing the charter of the Bank of England for the years 1845-6-7, but Mr. Gilbart confined himself to those of the joint-stock banks in London for 1847.

It appears that above one-third of the shareholders have taken shares solely with a view of obtaining profitable employment for their capital. They probably prefer public companies to the public funds, because of the higher dividends they are likely to obtain. During the last war the surplus savings of individuals were lent to the Government. This capital, whether sent abroad as subsidies or expended in ammunition at home, was annihilated, and the interest became a burden on the nation. Now, in times of peace, the surplus savings are invested in insurance, banking, railway, and other public companies. Here the capital is not annihilated, and its employment yields an annual profit which tends still further to enrich the nation. By means of companies the comparatively small savings of individuals are united into one sum more capable of profitable employment. Thus almost every person in the nation may, by the purchase of shares in proportion to his ability, place his surplus savings, however small, in a state of productive employment.

3. "Mortality among Blind Children," by Thos. Wiglesworth, Esq. The object the author had in view was to ascertain if the loss of sight affected the duration of the lives of children, and, if so, to what extent. He accordingly inspected the register of the Blind Asylum, St. George's-fields, which has been established fifty years. From these data he found that the number out of which one child would die in a year will be as follows:—

Age 14	one in 224	Age 18	one in 57
15	,, 248	19	,, 40
16	,, 89	20	,, 70
17	,, 65		

From data supplied by the Liverpool Institution for the Blind, Mr. Wiglesworth was enabled to form the following table of the causes of blindness:—

Causes of Blindness.	Totally. Per cent.	Partially. Per cent.
Blind from their birth ..	8·3	8·3
In consequence of—		
Smallpox	25·8	9·6
Inflammation	32·4	33·7
Cataract	6·1	19·5
External injury ..	10·7	8·0
Defect in optic nerve ..	9·3	12·5
Amaurosis	·5	·7
Imperfect organization ..	·4	2·2
Lost their sight at sea ..	1·1	·2
By gradual decay ..	·7	·2
After fever	1·4	·4
Measles	·8	1·1
Convulsions	·3	·7
From causes not mentioned, or imperfectly described	2·2	2·9
	100·0	100·0

REVIEWS.

Elements of General and Pathological Anatomy, &c. By DAVID CRAIGIE, M.D. Edinburgh: Adam and Charles Black. London: Longman and Co.

This very useful volume scarcely admits of criticism in the usual meaning of the word. It contains few novel views, and carefully eschews all theory, but is replete with facts and observations judiciously arranged and perspicuously stated. A little more philosophical induction would have made it a more interesting book to the literary reader, and would, perhaps, have rendered it more lucid as a whole than we find it to be—so much does a leading principle upon any subject tend to method and luminous arrangement; but then it would have run the danger of losing the character, which it now deserves, of being a faithful record of all that is known and received as true upon the subjects of which it treats.

The discoverer of facts comes first, in the order of scientific research; then the gatherer, who collects them from the various fields of labour, and stores them in the written archives; lastly, the discoverer of laws, who extracts the unwilling secret from the lips of Nature, and reveals the mysterious truth to the world. Books such as these, when knowledge increases so rapidly and is so extensively diffused, become a necessity in literature, as they serve to mass our knowledge, and to hoard it for future use. Let all honour, then, be given to the laborious gleaners in the fields of science; without them many a ripe ear would be lost, and the ascertainment of truth for a long time deferred.

The volume before us is a second and very much improved edition; and, however valuable it may have been esteemed when it was first submitted to public examination, its merit is now, as a compendium of anatomical and pathological knowledge, greatly enhanced. Two new books are added to it: one on the structure and morbid states of the glands; the other on the structure and morbid states of the lungs and heart.

Without chapters on each of these subjects the work must have remained very incomplete. We think, however, with every disposition to approve of such heavy and will-intended labours, that the book is, on the latter subjects, much too meagre to give satisfaction to the inquirer. These chapters seem rather to have been hurried off as an ungrateful task for the sake of completing the volume, than executed as a zealous and truth-loving resumption of a self-imposed duty.

One section of the chapter referring to the morbid states of the heart is, however, favoured with more space than has been allotted to others equally or more important. It is a subject, however, in which the author seems to take especial interest. The section is headed "Partial Aneurism, or Consecutive False Aneurism." The author had collected and previously published the particulars of seventeen cases of this form of lesion, and he here recapitulates the leading facts observed in these cases, and gives a summary of the opinions entertained as to the production of this morbid state. After fixing the most frequent site of this disease near the apex of the left ventricle, the author inquires into the mode in which these aneurismal pouches are formed. He first cites M. Breschet's opinion, that this lesion was analogous to false consecutive aneurism of the arteries, and caused by rupture of the muscular tissue; he then refers to M. Bouilland's idea, viz., "that the false consecutive aneurism of the heart is one of the effects or terminations of inflammation in the muscular substance of the heart." The author, however, denies the correctness of the general application of this idea, and observes, "Not only do instances of aneurismal cysts in the substance of the heart take place without any indications of previous inflammation or ulceration, but in several of the cases, indeed the majority, the lesion exists for a long time, without presenting any of the symptoms of the inflammatory or ulcerative process." The author then cites the well-known case of Talma in corroboration of this assertion. "It must be allowed, nevertheless," the author continues, "that the inflammatory process, without proceeding to ulceration, as Bouilland requires, may have a tendency to produce this lesion, by the change which it effects on the tissues in which it is seated." Adopting this opinion, the author reverts to the explanation of M. Cruveilhier, who inferred "that in every instance of false consecutive or partial aneurism of the heart, one of two processes is in operation: one, *the inflammatory action*, and the other the *fibrous transformation of the muscular tissue* of the heart." To the latter cause, however, M. Cruveilhier assigns the principal place.

This pathologist, however, distinguishes between partial aneurism and false consecutive aneurism of the heart. "By partial aneurism M. Cruveilhier understands," says our author, "dilatation of one portion of the heart into a cyst, in consequence of fibrous transformation of the tissue of the organs. These parts, however, may become eroded, and hence may be lacerated; and while the cardiac pericardium prevents complete rupture, either alone or by its having contracted adhesion with the capsular pericardium, the partial aneurism of the heart would then be converted into false consecutive aneurism." The author thinks that M. Cruveilhier's idea relative to the fibrous transformation of the muscular tissue of the heart derives great force "from the appearances of many examples of the lesion," but that "the only question for consideration would appear to be, whether has this fibrous transformation taken place *before* the aneurismal dilatation or *after* its occurrence?" No conclusive answer is given to this question, but the author sums up the evidence in the following manner:—

"Though it is doubtful whether abscess is the cause of this lesion, I think various facts show that chronic inflammation is the main predisposing cause of its origin. In the first place, the disease takes place in persons rheumatic or gouty, or who have had rheumatism; and in whom often the endo-cardium is or has been inflamed. In the second place, the effect of inflammation, it has been shown, on the muscular tissue is to destroy its elasticity, to render it brittle and easily lacerable, and sometimes to soften it. If, therefore, inflammation were attacking either the endo-cardium and spreading to the muscular fibres, or were attacking the latter from the first, it is easy to see that it might cause, in an organ so liable to distention and in action so incessant, laceration. In the third place, we find the lesion preceded or accompanied by various changes in different textures of the heart, which are generally regarded as effects of chronic inflammation."

We think that, notwithstanding the prudence and the circumstantial exactitude which seems to characterize this verdict, the author is not altogether consistent with his own utterances in a previous paragraph. The author, in the sentence just quoted, sets out with the proposition, from which all the rest is inferential and explanatory, that "various facts show that chronic inflammation is the *main* predisposing cause of its origin;" whilst, among the arguments adduced to refute Bouilland's idea, he declares "not only do instances of aneurismal cysts in the substance of the heart take place *without any indications of previous inflammation* or ulceration, but in several of the cases, *indeed the majority*, the lesion exists for a *long time without* presenting any of the symptoms of the *inflammatory* or ulcerative process," with much more to the same purpose.

Now, we tell Dr. Craigie, that we are always inclined to think that there is more truth in the refutation of an error than in the substantiation of an opinion; we shall, therefore, prefer using his equivocal evidence against himself, rather than in his service. We infinitely prefer his facts to his assumptions. An inductive writer should have a clear judgment and a long memory. These qualities are essentially necessary in the study of the science of medicine, where facts are so various and multiform in their relations and combinations, showing under different points of view such singular and unexpected phases, that consistency of opinion is soon lost if a writer be unfortunately endowed with a short memory, or, with the desire to generalize, has not arrived at a definite guiding principle.

A decision upon this interesting subject cannot yet be obtained, as the facts are not sufficiently numerous and minute to enable us to form a conclusive opinion upon them. It is a subject, however, well worthy of the careful investigation of the pathologist.

We shall now dismiss Dr. Craigie with a cordial recommendation of his very useful work, which, generally exempt from theoretical views and transitory hypotheses, will constitute a sound, copious, and impartial volume of reference for the pathological student.

THE MEDICAL TIMES.

SATURDAY, JANUARY 1, 1848.

FREE HOSPITAL QUACKERY.

SINCE the appliances of poor Marsden's bankrupt concern in Gray's-inn-lane were, in a last desperate fit of compulsory hospitality, made over to the "urgently destitute" surgery of The Wakley Family, many complaints have circulated to us through the profession on the unblushing way in which the patients and funds of that worse than beggarly institution have ministered to the purposes of a very mischievous quackery. In pity somewhat, but in contempt more, we withheld through months to give exponency to the universal condemnation; but the advertising boldness—out-hallooing even Holloway—has been encouraged by our forbearance to so dangerous a

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magnitude—the whole charitable "dodge," with all its pious adjuncts, threatens to be transmuted so daringly and so fast into a quack operating establishment (a species of chirurgical advertising van)—that we are reluctantly compelled at length to unite our protest to the general indignation, and to avow with a whole profession, at once outraged and disgusted, that such a contamination of a medical charity on one side, and of the object of medical charity (a professional journal) on the other, must no longer be tolerated.

Our complaint is not so much that the eleemosynary nuisance which Mr. or Dr. Marsden possesses in Gray's-inn-lane is made, with its twenty or thirty beds, the daily arena of empirical "*chirurgeries*" and field-day mutilations, though that is no insignificant offence; nor is it that the juvenile "*surgeons*" to that "*Royal*" Institution can scarcely order a poultice, without the public finding on their breakfast-table elaborate newspaper reports of the important circumstance; but it is that, first, a person possessing the diploma of the College of Surgeons should, day after day, by advertisement in every newspaper's quack column, call special attention to his "operative surgery"—and more especially to his "extraordinary" operations in the "extraordinary and interesting" cases of two very old men (giving their ages) who, through his skill, "perfectly recovered!"(a) and it is, secondly, that the person committing this flagrant offence should do it with the sanction, aid, and protection of a journal which, professedly opposed to quackery, depends on "*professional*" funds for its support, sustenance, and vitality! This is, indeed, *quite* unsupportable.

It is not to be doubted that the profession's pain and disgust at such extraordinary instances of chirurgical misbehaviour are founded on the surest grounds of virtue and public policy. In this novel species of audacious empiricism, there is in question much more than a breach of etiquette or of conventional regulation. Far more. The rule that binds a man against advertising and "touting" for patients is the protection of the public, no less than of the profession, and is essential to the well-being of both. It is the safeguard of the rights of learning and experience, and stands between the world and many a calamitous doing from the temerity of youthful ignorance. It protects us from a system of huckstering competition, by which noise would replace skill, impudence knowledge, and our whole medical practice degenerate into a thing of business expediency and accomplished superficials. It keeps down the vulgar mercenary propensities which would only see in a patient a customer, in a disease a commodity, in a deadly operation a "puff," and which, turning the medical practitioner into a species of pharmaceutical attorney, would make him the slayer instead of the saviour, the curse instead of the blessing of his neighbours. In fine, it is a law which preserves gentlemen where it finds them, and makes them where it gets the material: which secures to the sick man a skilful adviser, to the dying one an honourable friend; and which, maintaining throughout the land, in respectability and credit, the noblest aristocracy a country ever boasted—an aristocracy of skill and ceaseless usefulness—is the cause of unnumbered blessings to the whole community.

Let us judge, then, the moral tie of this law, as we do all others, by the importance of its adjuncts and consequences, and we are authorized to say that its violators infringe the plain duties of honest men, and commit a social offence well worthy of legal cognizance.

Nor should they, in cold policy, escape a condign punishment. The profession never more needed the protection of a martial law of etiquette than now. There is much of class disorganization in our ranks. Our numbers are great; poverty stimulates; worth is tempted; competition encroaches; an honest fear can alone defend us from dishonest hopes. It is true—to the honour of the profession—that there has been few—very few—such daring infractions; but the more rarely we have been troubled with such offences the greater will remain the reward to the young adventurer who will not be so restrained. The pecuniary advantages are visible, immediate—palpable, and, if to clutch them he do not hesitate to sacrifice repute, we must not hesitate to ward off imitation by visiting him with the full penalty. He becomes a rotten branch of the tree professional, and he must be lopped from it for the common safety.

Among the many provisions in the new Surgical Charter, there is one which in some manner atones for much of grievous impolicy and wrong. It gives the College of Surgeons the power to investigate a circumstance of this kind, with the right to inflict a very adequate punishment. The 22nd clause runs thus:—

"That if it shall at any time hereafter appear that any present or future member, or any fellow of the said college, to be appointed or admitted at any time after the expiration of the said first three calendar months from the date hereof, shall have obtained his letters testimonial or his diploma respectively by any fraud, false statement, or imposition, or that, either before or after obtaining such his letters testimonial or diploma, he shall have violated any by-law, rule, or regulation of the said college, then, and in every such case, and after such previous notice to, and such hearing of, such member or fellow, as under the circumstances the council of the said college shall think proper, it shall be lawful for such council to recal and to declare the letters testimonial or diploma respectively of such member or fellow to be void, and thereupon every such member or fellow shall cease to be a member, or a member and fellow of the said college, as the case may be accordingly."

Here, then, is the power: have the council the will—the courage—the honesty to exercise it? If unused now, can a case ever occur in which, with decency or any chance of success, they can avail themselves of a privilege which, well exercised, may confer such great benefits on the profession?

(a) (*Advertisement.*)—"OPERATIVE SURGERY.—Amputation at the shoulder-joint in a patient, aged seventy-one, successfully performed under the influence of ether by Thomas Wakley, Esq., surgeon to the Royal Free Hospital; also amputation of the arm in a man, aged seventy-five, under the influence of ether, successfully performed by Thomas Wakley, Esq.: perfect recovery of both patients. These cases exhibit the most extraordinary proofs of the safety and value of the use of ether vapour in operative surgery."

THE MEDICAL COUNCIL OF THE LONDON UNIVERSITY SCHOOL.

ELECTION OF A SURGEON.

THE governing body of this institution has appointed Mr. Syme, the Edinburgh professor of clinical surgery, to be surgeon to the hospital, and lecturer on surgery to the school. The vacancy thus created at Edinburgh is expected to be filled by the appointment of Professor Miller.

The choice of Mr. Syme has created a very general dissatisfaction among London surgeons; but, all circumstances considered, we think it the best appointment that could have been come to. It is to be regretted, but the fact is therefore not less certain, that the metropolis has been most unsuccessful of late years in bringing forth a progeny of promising surgeons; and while we join in the complaint, that a large hospital school, after an existence of the sixth part of a century, has not one *alumnus* worthy of its surgical chair, it is better to admit the misfortune than to attempt to conceal it under an inefficient and reprehensible appointment.

It was desirable, on the first establishment of the hospital of this institution, to select a surgeon in every way competent for the duties of the office; but, when the "medical *senatus*" sought for a man who should excel merely in performing operations, and for the avowed object of increasing the number of pupils by the sanguinary exhibitions of an operating theatre—never taking into consideration the benefit of the sick poor—the principle of such a system met with universal disapprobation, and we may confidently affirm that it was considered by the profession at large not only as holding out a bad example to the youths of the hospital, but a base principle to adopt in electing medical officers, and one entirely new and unexampled in the history of hospital appointments.

Whatever *profit* the *senatus* may have derived from Mr. Liston's fame as an operator, it is earnestly to be hoped that his successor has been selected more for his knowledge of the best modes of curing diseases and preventing the necessity of performing operations, and not merely for a display of operating.

If there has been any one reason more than another which has advanced surgery in the estimation of society, by destroying its character as a mere handicraft art and raising it to rank amongst the sciences, it has been the extraordinary diminution in the number of operations which the most eminent men who practise it have now recourse to. "The passion of acquiring character in operations," justly observes Sir Charles Bell, "is surely full of danger; it is fit for those only to possess who have no higher claim to public esteem."

IRISH POOR-LAW MEDICAL REMUNERATION.

IT is evident, from what has occurred in reference to the Irish Board of Health, and in connection with the several poor-law unions on the other side of the Channel, that our medical brethren have to do with hard taskmasters, who seem to imagine that attendance upon the sick poor is only worthy of a small reward. The remonstrant physicians and surgeons have been compelled, for a miserable sum, either to expose their lives in attending upon patients afflicted with virulent disease, or to a great extent relinquish the exercise of their high vocation. Fever has employed its deadly influence throughout almost every city, town, and village in Ireland. Numbers of medical men have succumbed to its power. Yet, on the part of Government, there has been manifested no symptom of regret; but the lives of our brethren must be still jeoparded for the pitiable sum of five shillings a day.

The same policy has been adopted as regards the payment of union medical officers, a sum being tendered to them which cannot possibly remunerate their services, and which exercises a most injurious influence in depreciating the value of their labours in public estimation.

The Dundalk Union has within the last month required the services of a medical practitioner to vaccinate the poor of the district, and an advertisement has accordingly been inserted in the

Newry Commercial Telegraph. With a liberality peculiar to poor-law guardians, the sum of one shilling per head has been offered for the first 800 successful cases, and SIXPENCE for each successful case over that number, within the year. Moreover, the reward being so very considerable, applicants are required to attend in person at the board-room on the day of election. But, in order that the board of guardians may have no reason to complain of any unjust reflections on their liberality, we give our readers a verbatim copy of the advertisement from the board-room, as it appeared in the newspaper :—

"DUNDALK UNION.—VACCINATOR WANTED.—The board of guardians of this union will, on Wednesday, the 15th December inst., consider applications from persons duly qualified for a vaccinator for the union, on which day the appointment will be made. The rate of remuneration to be one shilling each for the first 800 certified successful cases, and sixpence for each successful case over that number, within the year. Applicants will have to attend in person at the board-room on the day of election. Applications to be sent to me, directed to the 'Board of Guardians of the Dundalk Union,' on or before the above date. By order of the board, WM. HILL, Clerk of the Union. Board-room, Dec. 1, 1847."

It will be seen that this revered board is deeply anxious the gentleman employed should be duly qualified; he must be one who has studied his profession, and who for this purpose has expended no inconsiderable sum upon his education; no illiterate practitioner, incapable of discriminating between a genuine vaccine pustule and a spurious one, will do; and, with a proper regard for the welfare of the poor, on the 15th day of December all due consideration was to be given to the applications, that the most suitable person might be elected. These precautions are certainly worthy of praise, and we should have heartily rejoiced if as much concern had been manifested for the temporal welfare of the "duly qualified" operator. Here, however, the left-handed charity of the board becomes eminently conspicuous, for how is it possible that pauper patients can receive all that attention from the surgeon which their cases require to shield them from a frightful disease, when he receives the paltry remuneration of less than a shilling per head upon the gross number.

Towards the "duly qualified" practitioner himself, the paltry sum must operate most injuriously, not only as it cannot reward him for the time and talent employed, but because it will induce patients capable of paying to expect medical attendance upon terms most degrading and unremunerating. This has been really the case in some of the parochial unions of England, as many letters which we have received from well-known correspondents testify. One gentleman, who has very recently addressed us, says, "I hold a district with the fixed sum of 1s. 6d. for each successful case of vaccination. The neighbourhood knows it, and private patients will not give me more, expecting me to call at their houses to operate, and once or twice afterwards to see the arm. Now, I am obliged to do this to save my business; and it, therefore, shows the curse brought upon us by the unions."

The injury thus inflicted is not confined to union surgeons, but extends to every general practitioner. A common interest should, therefore, stimulate them to united efforts, in order that they may obtain for their services that remuneration which is in accordance with the dictates of justice and humanity.

DIAGNOSIS OF DRS. WATSON AND WILLIAMS IN THE CASE OF MR. LISTON.

[The following letters have been published by Dr. Watson and Dr. Williams. Dr. Williams seems to be another "University School" gentleman, with peculiar notions of the professional decencies.]

DR. C. J. B. WILLIAMS' VINDICATION OF HIMSELF.

Having seen, and heard it stated in several quarters, that there were no physical signs of disease detected in the chest of my lamented colleague, I think it right, for the credit of physical diagnosis, as well as in justice to myself, to make known the results of my own examination of the case, which were (according to my custom) recorded in my note-book shortly after the observations were made.

On the attack of hemorrhage at the end of July, Mr. Liston sent for me, but unfortunately I was absent in the country, and did not return to town until three weeks after My first examination was made on the 18th of August, in the presence of Mr. Cadge (who was made acquainted with the signs which I detected) and another friend of Mr. Liston, whose name I do not recollect. At this time Mr. Liston felt no ailment whatever, and had resumed his ordinary habits of daily active exercise. The following is the note of the *positive* abnormal signs detected on exploration of the chest at this time :—

"Marked dulness above the left clavicle and scapula" (on strong percussion); "large tubular breath and voice sound in the same space; tubular expiration above upper inner angle of right scapula."

The tubular sounds here mentioned were not of that slight muffled character sometimes heard in the upper posterior regions of healthy chests (generally in thin persons), but were boldly marked and obviously morbid signs; and knowing the buoyancy of his spirit, and his propensity to dangerous exertion of strength, I hesitated not to state to my friend my conviction that there was some disease in his chest, which if not dangerous from its extent, was so from its locality, in the vicinity of great blood-vessels, the profuse hemorrhage which had occurred being a signal warning of such danger.

The precise nature of the disease was not equally evident. There was obviously deep-seated consolidation or compression of the inner part of the apex of the left lung, causing the deep dulness between the clavicle and scapula, and large tubular sounds in the same region; and the tubular expiration at the upper inner margin of the right scapula implied a similar cause, but to less extent, operating on the right side; but whether the lesion was tuberculous or other deposit at the root of the lungs, extending towards the apex of the left, or a small aneurismal tumour compressing these parts, or a morbid growth encroaching on them, could not at that period be determined. The occurrence of the profuse hemorrhage deterred me from suspecting the last to exist, and, not finding any unusual pulsation or other signs of aneurism, I then inclined to the first of these alternatives. But my earnest cautions to my friend were grounded, not on the precise nature of the disease, which was doubtful, but on the presence and position of some disease, which was not doubtful, and which, considered in connection with the previous hemorrhage, was most alarming.

But, alas! my warnings were little heeded; and, on several subsequent occasions on which we met in professional intercourse, he had always some feat of activity or strength to recount in falsification of my diagnosis. At one of these times he suggested to me that a former fracture, and consequent overlapping of the ends of the left clavicle, might cause the signs which I had heard; but my reply was, that this could not produce dulness or tubular sounds above the scapula. It is a poor consolation, but it saves me from self-reproach, that I never said anything to countenance his disposition to make light of his malady, but uniformly asserted my conviction of its serious character.

The second and last occasion on which he consulted me was early in November, during the second of a series of attacks of hoarseness, with cough and deficient expectoration, which continued to recur until the last fatal attack in December. The result of my examination at this time (I think the first week in November, but the date is not inserted) is thus recorded :—

"The same dulness in upper left, and an increase of tubular sounds, which were very loud above left scapula, and at inner margin of right scapula; *something pressing on trachea*, but no obvious pulsation." There was now evidently a tumour pressing on the trachea near its division, for the tubular sound was different from that in the larynx; and I expressed to him my fear that there would be either suppuration, hemorrhage, or increased dyspnœa, unless active means were used to reduce the internal swelling. I strongly urged him to be cupped to ten ounces above the left scapula, and to avoid every description of excitement and exertion. He did not follow this advice in any particular, but, as he told me afterwards, got relief by strong exercise in riding a restive horse, which promoted expectoration.

After this I did not see him professionally, as he placed himself under the care of physicians who, both before and after this period, found no physical signs of disease, and who, therefore, took a more favourable view of the case than I did.

The result is known, and I make no further comment on it; but I cannot close this letter without drawing the attention of your readers to the paramount importance of the supra and inter scapular regions as the field for physical signs of serious and deep-seated diseases of the lungs and great vessels. It has been the common mistake, since the time of Laennec, to search too exclusively below the clavicles; yet in five-sixths of cases of incipient diseases of the lungs, and in more than half of the cases of aneurism of the arch of the aorta, the signs are heard at an earlier period, and more distinctly, between the clavicles and scapulæ, and behind the scapulæ, than in any spot below the clavicles.

I am, Sir, &c.,
C. J. B. WILLIAMS.

Holles-street, Cavendish-square,
December, 1847.

DEAR DR. WILLIAMS,—You are quite wrong in supposing and stating that we "found no physical signs of disease," and "therefore took a more favourable view of the case than (you) did."

From the very first my anticipations of its ultimate event were (as many could testify) most gloomy, and so, I know, were Dr. Forbes's.

Soon after the hemorrhage, I noticed, and recorded in my note-book—which you are welcome to see—some imperfection in the breath-sounds about the upper part of the left scapula, something not quite natural also at the summit of the right, and some appreciable difference in the voice in the two supra-spinal fossæ. I then went out of town, and was absent five weeks. After my return, Mr. Liston called on me (on November 13), complaining of cough. He had then manifest shortness of breath. From that time "physical signs" were never absent. A very peculiar, rough, and loud respiratory murmur pervaded both lungs. At first, I confess I apprehended, from this sound, the rapid multiplication of small tubercles; for I had been informed that his mother, and also a sister, had died consumptive; and by these facts I interpreted the previous hemorrhage. But very soon Dr. Forbes and I convinced ourselves of the presence of some obstacle in the large and primary air-passages, whence the remarkable sound was propagated. At that time Mr. Liston was bled, with relief, and the blood was distinctly buffed and cupped. For three weeks at least before his death, our opinion (and that of every one else who saw him in our presence) was clear, that some mechanical impediment existed about the bifurcation of the trachea, or in the first divisions of the bronchi. The inspirations were comparatively facile—the expirations long, noisy, and growling. Some dysphagia also was detected, although the patient himself was reluctant to acknowledge it. Possibly (we thought) an enlarged bronchial gland, or some morbid growth, was exercising pressure there—most probably an aneurismal tumour.

Of all this, if it were worth while, several witnesses might be called.

From various phrases and sentences in your letter, which I need not cite, as well as from its whole tenour, an ordinary reader, unacquainted with the real facts of the case, could not fail to infer that we did not, as you had done, "warn" our patient; that *we* "countenanced his disposition to make light of his malady," and ought, therefore, to stand "self-reproached;" that *we* sanctioned his taking "strong exercise in riding a restive horse, which promoted expectoration;" and that, had the solemn and responsible office of advising and treating this eminent surgeon been yours instead of ours, a different "result" might have been hoped for; for you close your observations with these words:—"After this, I did not see him professionally, as he placed himself under the care of physicians who, both before and after this period, found no physical signs of disease, and who, therefore, took a more favourable view of the case than I did. The result is known, and I make no further comment on it."

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Now, the real truth is (as his family can tell you), that all our poor patient's imprudent acts were done in spite of our most earnest and reiterated remonstrances—remonstrances so urged as sometimes to make him almost angry with us, and especially with Dr. Forbes, who, living near him, saw and expostulated with him more frequently than I had opportunity of doing. Our entreaties to him to "avoid every description of excitement and exertion" were as pressing as yours could have been, only (from circumstances) much oftener repeated. We had even prevailed upon him, just before his first sudden attack of extreme dyspnœa, again to leave town for a while, that he might ensure the means of quietude. Much the same kind of treatment which you affirm would have been appropriate was counselled by us and adopted. He was cupped—twice, I think—bled twice from the arm, blistered, and kept on low diet.

In short, all the treatment that you would have recommended, we recommended; all that could be positively known concerning the disease during life, we knew as surely as yourself—viz., the certain existence of mechanical pressure about the lower part of the windpipe; and all that could be reasonably conjectured of its material cause, we saw as clearly as you did—viz., the probable existence of an aneurismal tumour.

I hope I have satisfied you that you have been greatly misinformed respecting the facts and practice upon which, directly or indirectly, you have been pleased to comment, in a tone of disparagement.

Now, was it courteous, or even fair, to publish what you have published in reference to the physicians, who could be no other than Dr. Forbes and myself, without previously ascertaining from one or the other of us whether the facts of the case really were as you understood them to be? Would it have been charitable or generous so to exhibit our mistakes, even if you were sure that we had made them? Do you indeed believe that, if our lamented patient had been intrusted solely to your care, and could have been induced implicitly to obey your directions, the fatal "result" of his disease would have been prevented?

One more question I venture, in perfect amity, to propose for your calm consideration. Is it consistent with your character—with your high rank in our profession—with your office (which presents you as an example to so many) in one of our great metropolitan schools of medicine—thus publicly and needlessly, under profession of a zeal for science, to proclaim your own superior sagacity, and (by implication) the comparative ignorance or unskilfulness of others, your contemporaries, pursuing in the same place, to the best of their humbler abilities, the same vocation with yourself, and, in this instance, engaged in the peculiarly anxious duty of ministering to the relief of a professional brother? Would Baillie or Heberden have done thus?

I remain, yours truly,

THOMAS WATSON.

Henrietta-street, Cavendish-square,
December, 1847.

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times.]

SIR,—On the great question of poor-law medical remuneration, which is now engrossing the attention of so large and interested a portion of the medical profession, many are desirous of expressing their opinions as to the most efficient manner by which such object can be attained. Many have already publicly expressed their views through the medium of your columns, and doubtless many others will avail themselves of the facilities which your kindness enables them to do; I, therefore, as one, beg a small space for the few remarks which I may have to make.

In the first place I will make reference to my district as it stood on the formation of the union; then as it has stood since the alteration made by the poor-law commissioners; and, lastly, my views as to the mode of remuneration which would be satisfactory to myself and probably to many others similarly situated. First, the Pontypool Union, on its formation, was divided into two districts, viz., the Pontypool and the Usk: the former having, in addition to the union-house, nine parishes; the latter thirteen, including two hamlets as parishes. The salaries paid to the medical officers amounted to £150, being £75 to each. The Usk district was at that time attended by the gentleman whom I succeeded, and he received the above salary until a rival practitioner got some friendly guardian to propose a tender which was agreed to by the board, and my predecessor, fearing he might lose his appointment, reluctantly reduced his salary to £60, and he was again appointed, though his opponent's tender was considerably under that sum, and which was the amount paid when I succeeded to his practice. The duties were then performed by me for sixteen months, when the poor-law commissioners altered the area of the districts. From the size and duties of the Pontypool district it was necessary to form another, consequently a new one arose called "The Panteague," comprising the union-house, seven parishes of the old district, and a hamlet taken from mine, leaving two large parishes for the original district. In order to make up a salary for the additional medical officer £30 were taken from the other gentleman's salary, with half his duties; and for the one hamlet, about four miles from my house, and belonging to the parish of Usk, the unjust sum of £15, so as to equalize the salaries of all, viz., £45; so that for the twelve parishes I do not get at the rate of £4 each, and one of them, a widely scattered parish, extending to the distance of eight miles from my house. Yet, for the duties of the hamlet which was taken (and from which, during the sixteen months I had it, there were not more than four persons ill), the estimate for such annual attendance was £15. I wrote to the commissioners, representing the case, and begging them to back my application to the guardians for redress, and which they kindly did, but the latter did not think fit to alter the resolution they had previously decided on. I make no complaints of our guardians (beyond that act which has, up to this time, annoyed me much), because we have gone on smoothly together, there having been no cause, during the six years I have attended my district, to bring about a misunderstanding between us.

I now offer my views as to remuneration for services. According to the old system of paying medical men for attendance on the parochial poor, the appointment was generally given to that individual who would tender for the lowest rate of remuneration or, rather, payment, I should say, for no one could call it remuneration. I have in former years, whilst residing in Devonshire, had the charge of paupers, and, though I have contracted to attend at a very low figure, yet I never was paid at such a minimum rate as I am at present. Formerly each parish contracted to pay a medical man for his attendance at a certain sum per annum, and such now I hold to be the best plan of arrangement. I conceive that, if the Government should think fit hereafter to take the management of unions into their hands, it might be more satisfactory to those practitioners residing in agricultural districts if the following plan were adopted. I will take my own district, for example, and, in order to explain myself more intelligibly, I will give a list of parishes in it, with the distances from my house, and then attach an annual payment for each, thus making the aggregate amount the payment for the whole district; each parish, as in former times, to pay the sum fixed for each according to population and distance, which I should think would (or at least ought to) be satisfactory to the guardians and to the medical officers in attendance.

NAMES OF PARISHES, AND EXTENT OF DISTANCES FROM MY HOUSE.

Parish.	Miles.	Population.	Presumed Amt. of payment for Parish.
Gwehellog ..	3¼ ..	353 ..	£ 5
Kemeys Commander	3 ..	81 ..	2
Llanbaddock ..	3¼ ..	457 ..	7
Llantrissent ..	4 ..	329 ..	7
Llangaview and Gwernesney	2¼ / 2¾	242 ..	5 / 4
Llangibby ..	4¼ ..	535 ..	7
Llanthowel ..	2¼ ..	105 ..	5
Monkswood ..	3¼ ..	168 ..	7
Goytrey ..	8 ..	566 ..	15
Trostrey ..	3 ..	196 ..	6
Usk	— ..	1525 ..	15
Total ..		4558 Total	£85 as a fixed salary, exclusive of fees.

Taking the above as a fair and reasonable calculation (and which, I think, all who read this will assent to), you will observe the aggregate amount would leave a fixed salary of £85, being £40 in addition to what I am at present receiving, exclusive of extras. Touching the latter, I consider they should still be in force; but, if they were extended to other operations in surgery than at present allowed by the poor-law commissioners, the profession would be more satisfied. In my arrangement I presume the extra fees still to exist, or, in the event of their being abolished, that each parish in the union should (in proportion to its population) pay an additional sum in lieu of them. Touching the "per case" system, which has been adverted to by some, I, for one, most decidedly object to it, for I am convinced it will never answer the ends some may have in view.

Apologizing for trespassing so long—in fact, much longer than I had intended,

I remain, Sir, your obedient servant,

HENRY GREATWOOD, M.B.C.S.

Usk, Monmouthshire, Dec. 18.

[To the Editor of the Medical Times.]

SIR,—Having read lately a good deal in your *Medical Times* respecting the payment of the medical officers of the various unions in England, and wishing good success to the efforts now making for the benefit of both the sick poor and their medical attendants, I trust you will excuse my troubling you with this letter on the subject, having myself had the medical charge of nine or ten parishes for the last 30 years. The old system had its evils. The surgeons were certainly better paid, but then they only got their money once a year, and that sometimes months after it was due, and after many calls and journeys for it, and indeed then it often came as a great favour from the overseer, as if he was giving you so much money for nothing.

With regard to the Dowlaess union, to which I belong, it is my conscientious opinion, that, in the first instance, Dr. Kaye (the commissioner) and the guardians fully intended and expected they had paid their medical officers liberally; and so they had if we could have claimed our bargain, if I may use the term; but it was impossible; the intentions of Dr. Kaye and the guardians were frustrated almost immediately, and in the following way: as soon as the surgeons were elected they appeared before the board, and Dr. Kaye thus addressed them:—"Gentlemen, I am aware your salaries will be much smaller than heretofore, but then your labours will be very much lighter, inasmuch as you will be called upon only to attend upon the paupers and the casual poor, such as strollers and vagrants, who may happen to fall ill in your districts. All the able-bodied or independent labourers and mechanics must pay you themselves, or else go into your medical clubs, forms for which you will be furnished with by the poor-law commissioners; and, moreover, to save you unnecessary trouble, you are not obliged to attend unless you have a written order, either from the relieving officer, a churchwarden, or a magistrate."

So far so good, and I for one was perfectly satisfied. But now came the difficulty of fulfilling our engagements. Some of the able-bodied and independent labourers and artisans stoutly and resolutely refused to pay us, or to go into our clubs; saying, they "always had been doctored by the parish, and they would lie and die if they had no doctor found them." Some, a good many, availed themselves of the clubs, and if all who were expected by the guardians and Dr. Kaye had entered the clubs, and paid up properly, they would have answered, and we should have been fairly remunerated. The facts are otherwise: hundreds of refractory, lazy fellows absolutely refused to pay in any way; and when they became ill their relatives told a piteous tale to the churchwarden or relieving-officer, stating that their husbands, wives, or children, as the case might be, "laid dying for want of a doctor, and they had no money, but if they had an order this time they would in future go into the doctor's club." They all got orders, and they not only did not join the club when recovered, but actually upbraided those who were in for paying, asserting, "They (the guardians) dare not let them lie and be lost." Here was the first injustice done us; we had to attend all these refractory fellows and their families, over and above the regular paupers. The churchwardens did the agreeable acts of charity by giving these people orders upon us to attend them. This evil began the first year, and has been increasing ever since. The club patients saw others got medical relief without paying for it, and they retired from the clubs in great numbers, and you could hardly blame them. The next thing was, that guardians and overseers were allowed to give orders for the doctor; and I have frequently had orders written by children, for the overseers (who could neither read nor write) for me to attend anybody, no matter who, that chose to apply to these men, literally only one step above, and some as poor and badly off as their applicants.

It is not only agreeable in a charitable point of view to give relief in this way, but it is flattering to

these people's feelings to have the power of ordering the doctor to attend, and they do it in all cases, without taking the trouble to ask if the parties are in the club, or otherwise proper objects of charity. I have often complained of this, and the only answer I could get, was "You must get them into your club," without giving me the power of enforcing them to enter, which the guardians might easily have done, as I suggested to them, in the following way, namely, by giving a discretionary power to the churchwardens and others empowered to give orders for the doctor, to give all these refractory people, whether husbands, wives, or children, an order for the house until they recovered. If the guardians had done this, not one in fifty would have accepted the order, and they would soon have been tired of suffering pain and sickness without medical aid, and all would have contrived to pay their shilling, eighteenpence, or two shillings a quarter, according to the size of the family; nor could the guardians have been accused of cruelty, for they actually would have not only offered medical aid but a house too, to those who obstinately refused to help themselves; and to prevent the danger of removal the officer might require a certificate from the surgeon, that the case admitted of removing to the union house.

This step would have settled the matter in twelve months, and all the independent poor would have been enrolled in the commissioners' medical clubs, and Dr. Kaye's plan would have been carried out satisfactorily to all parties; and, after all, if it was found, as I think it would have been, that independent labourers, with four, five, or six children under a certain age, ought always to be considered eligible for medical relief, the average number of such in each district should have been ascertained, and ordered on the books of the house, and a suitable addition made to the salary of the medical officer to cover these extra cases, not coming under the title of paupers. I declare solemnly, I attend as many poor now as I did before the union was established, and that orders are as easily obtained; in fact, they are never refused to any one who chooses to apply. Another thing Dr. Kaye told us, "that all young single men and women above sixteen were considered independent poor, and that they must pay their own doctor, or go into his club, and pay one shilling per quarter." This is never done; they all get orders. Moreover, all agricultural servants, male and female, whose wages were under £6 per annum, were invited to go into the clubs; but this is not done, and hundreds of this class of people, who are taken ill while in service, are sent home to their parents to recover, and invariably get orders for the parish doctor, even while they are actually hired servants.

Nobody thinks of compelling the rich to employ doctors, and some never do, and they certainly have a right to refuse if they please; and why not give these obstinate poor the same option? and, if in sickness they repent, let them go to the house, as the only means you can give them; they will soon gladly fly to the medical clubs. On the other hand, if we are to attend all, as heretofore, then, in justice, give us our former salaries. After thirty years' experience, I believe this is the only plan that will succeed. It may appear at first sight harsh, but it must be remembered, it is only applied to those who will not help themselves, and that that number is small; but, by their counsel and example, the well-disposed have fallen in with them, and, indeed, you cannot wonder at it. If those who refuse to pay get the same medical relief gratis, it naturally makes the others dissatisfied. Had Dr. Kaye adopted this method of enforcing his plan of medical relief, I believe the medical officers of every union he superintended would have been well satisfied; the fault was not in the system, but in allowing it to be upset by a few refractory poor.

I am, Sir, your obedient servant,

Worthington, Dec. 18. W. JOHNSON.

P.S. Dr. Kaye awarded £300 for the medical relief of thirty-two parishes, including the union-house in the centre. I think it was so much per head, according to the population.

DR. WILLIAMS AND THE STETHOSCOPE.

[To the Editor of the Medical Times.]

SIR,—Dr. Williams having deemed it wise to address the public in defence of his own character as a patron of auscultation, he has laid himself open to animadversions; and being no amateur of the stethoscope, and no admirer of the principle on which many of its advocates make use of it and seem to be guided, I am glad to take so favourable an opportunity as the present to add my endeavours to expose its fallacies.

Since the notorious case of Lady Flora Hastings, who died of an enlargement of the liver, and who was pronounced by the royal physician to have a pregnant uterus, after repeated stethoscopic and other such modes of examination, there has since been no instance brought before the public of gross ignorance so truly lamentable and so startling to the profession as that of the unfortunate Mr. Liston.

The moment I commenced the perusal of the learned doctor's epistle, I was reminded of the observation of an old and experienced police-officer, who, when about to interrogate all the servants of a household after a robbery had been committed, observed, "that the guilty one was sure to commit himself by speaking first, provided they were all brought into the room at the same time."

Dr. Williams lost no time in writing first, and, like the apology of a man who has got into difficulties, his letter is a piece of special pleading.

The doctor wishes to impress upon the reader that he made no mistake in the ever-to-be-lamented case of the late Mr. Liston, and to prove this he quotes "my own note-book," which, it must be allowed, is a most excellent specimen of a stethoscopic diary.

In the first place, it is impossible not to be surprised that "my note-book"—which professes to contain the state of a patient—should not contain one word of any of Mr. Liston's symptoms—not a word of his paroxysms of dyspnœa—his difficult deglutition—the state of the arterial pulse in the two arms—or the history of the symptoms. In short, the whole attention of the learned doctor seems to have been directed to the physical signs, and never could there have been brought forward a more striking proof of the fallacy of a stethoscopic examination; and I am told that the reason of Mr. Liston's declining any further professional visits from the eminent stethoscopist arose from an observation he made, that the most striking feature in the case was a disparity in the two sides of the chest; to which Mr. Liston sneeringly replied—"If that's the upshot of the examination, it's nothing at all. Why, man, I once broke my collar-bone, and so that side is like to be more concave."

Windsor, Dec. 26. HUMANITAS.

THE QUACK CASE.

[To the Editor of the Medical Times.]

SIR,—Your plain version of facts respecting the case of quackery deserves the warmest thanks of every honourable-minded man in the profession, ay, in the community. The operator clearly applied a ligature on the main artery of a limb for the cure of a malignant disease! This is clear: for we are told that there was "sloughing of the muscles of the forearm, terminating in fungus hæmatodes." With such doings and sayings, is it not a scandal to the medical press of a civilized country that such a vehicle as the *Lancet* should meet even with the limited support which it has?

A SURGEON.

A WORD ON AUSCULTATION.

[To the Editor of the Medical Times.]

SIR,—The *Medical Times* of December 19 contains an able communication from the pen of a correspondent, in which he seems to underrate the importance of auscultation, in connection with the medical attendants of the late eminent surgeon to whom it refers.

It strikes me that nothing can be more at variance with the physics and the philosophy of medicine than to maintain that, because an error has been committed by the most zealous cultivators of those sciences in having attached too much weight to physical signs and too little weight to general symptoms, therefore, the relative value of the one more than compensates for the want of the other.

The following case will serve the purpose which I have in view better than any arguments which I might adduce. A married woman, aged forty, the mother of seven children, for the first time complained of pain and uneasiness in the right hypochondriac, and umbilical regions; these symptoms showing themselves in the latter months of pregnancy. In a few days after an easy confinement she presented herself as an out-patient to the writer, at a provincial infirmary, in the following condition: She was sallow-looking, but not emaciated, complaining of weakness, palpitation of the heart, and abdominal pain and tenderness. On examining the abdomen, a large prominent tumour was observed to be bulging outwards beneath the right false ribs; this presented no irregularities; it was extremely tender when gently handled; there was no fluid in the abdomen, no jaundice, nor dulness upon percussing the iliac regions; the uterus was healthy upon a vaginal examination; there was slight œdema of the lower extremities. On examining the chest, percussion betokened an unusual extent of dulness over the lower end of the sternum, scrobiculus cordis, and to the left of the sternum; but she referred little or no pain to this region.

She was not seen again for many months, nor anything heard of her. When she presented herself as an in-patient she had ascites, and anasarca of the lower extremities, the latter having preceded the former by some months; she was harassed with difficulty of breathing amounting to orthopnœa; pulse weak and intermitting; upon percussion, both sides of the chest sounded dull, especially the left side; the healthy breathing, but mixed with crepitus, was limited to the upper regions, as she lay supine. Behind there was absolute dulness below the right scapula, and over the left scapula there was audible bronchophony and large crepitation. On auscultating the heart, a loud rasping sound was audible along the whole extent of the sternum, reaching upwards in front, along the tract of the carotid arteries, being equally distinct also over the cervical region behind, and downwards along the spine; profuse hæmoptysis supervened, which continued till her death, five days afterwards.

A sagacious observer, unskilled in auscultation, would, I imagine, fail in solving a train of symptoms so anomalous. At the commencement he would doubtless attribute the anasarca to the liver enlarged by some foreign growths, and towards the termination would refer the hæmoptysis to the presence of tubercles on the lungs, or to some other pulmonary lesion; the orthopnœa and intermitting pulse, to hydro-thorax and hydro-pericardium. On the other hand, an accurate observer, skilled in auscultation, would, doubtless, in the absence of signs of renal and hepatic disease, in conjunction with aortic regurgitation, infer that the dulness in the region of the heart was owing to thickening of its walls and dilatation of its cavities; and in the latter stages the increased dropsy, the loud rasping bellows sound, audible in almost every part of the chest in front, back of the neck, and down the spine behind; the condensed condition of the lungs, and the profuse hæmoptysis, not localized to particular spots, indicated everywhere by crepitus mixed with healthy breathing: all these analyzed would lead him to look to the heart as the cause of disorder, and anticipate the others as the effects.

On examination after death the heart was found to be about four times as large as the closed fist; one of the aortic semilunar valves had been destroyed; the calibre of the thoracic aorta was three times its normal size, its coats extensively ossified; the lungs free from tubercles, the left lung, when sliced, looking exactly like "apopletic lung," portions of it hardly floating in water; the liver was healthy, but displaced during life by the hypertrophied heart.

In this, as in all incurable diseases, correct diagnosis may be of no advantage to the patient; but there is this consolation, that we know the less we do the better; we can promise nothing more than affording temporary relief. The value of auscultation, however, is best seen, not in detecting small and deep-seated aortic aneurisms, simulating chronic laryngitis, laryngismus stridulus, and many others, admitted by physicians as occurring in conjunction with aortic aneurisms, although not necessarily indicative of that disease; but in diagnosing pneumonia, pleurisy, and pericarditis, the latter often before the patient's attention is directed to the complication, and in this manner enables the practitioner to direct his remedies to subdue the disease at its onset.

I will not trespass further upon your valuable pages, but beg to remain,

Yours obediently,

CHIRURGUS.

THE NEW INCORPORATION.

TO THE RIGHT HONOURABLE SIR GEORGE GREY, BART., HER MAJESTY'S PRINCIPAL SECRETARY OF STATE FOR THE HOME DEPARTMENT.

The Memorial of the President, Vice-Presidents, and Council of the National Institute of Medicine, Surgery, and Midwifery,

Showeth,—

That your memorialists were duly elected the representative Council of the National Institute in

August, 1847, and that they represent the opinions of above four thousand of the general practitioners of England and Wales.

That, upon a former occasion, the previous Council of the National Institute had the honour of presenting a memorial, bearing date Dec. 24, 1846, to her Majesty's Principal Secretary of State for the Home Department, in which memorial the opinions and sentiments of the class of medical practitioners whom your memorialists represent were carefully and deliberately stated. That the statements contained in that memorial were subsequently explained and confirmed by a deputation from the said Council of the Institute, in an interview with the Right Honourable Sir George Grey, Bart., at the Home-office, on Friday, February 5, 1847, and your memorialists fully believe that at that interview the deputation were enabled so far to convince the Right Honourable the Secretary of State of their truth and importance as to elicit the assurance that the Council should be admitted concurrent parties to any measure of medical reform that may be adopted by the Government.

That your memorialists fully concur in the propriety of the recommendation conveyed to them and to others of their medical brethren from the same influential quarter, to the effect that it would be desirable that the members of the medical profession should themselves meet and agree upon some general plan, prior to the Government undertaking to introduce a bill before Parliament for the revision of the laws affecting the medical profession. That your memorialists have ever been most anxious to promote the views contained in that recommendation, and have been willing and prepared to meet any authorized parties representing the existing medical institutions, and to discuss any plan that might be submitted, in the most amicable spirit, and with the most sincere desire to obtain such a settlement of this highly important question as may conduce to the public welfare and the peace and tranquillity of the profession.

That your memorialists deeply regret that the advice alluded to has not been acted upon, and that the benevolent intentions of the Government have not been reciprocated in those quarters from whence an immediate proposition for a conference should have emanated.

That your memorialists are fully persuaded that daily increasing evils press upon the people of these realms in consequence of the laws by which the medical institutions of the country are governed, having been found by experience to be quite inadequate to the wants of the public, and from their charters having become in a great degree obsolete. That before any efficient measure affecting the public health or sanitary improvement can be successfully carried into effect, medical reform appears to be an essential preliminary step, and your memorialists can never too strongly impress upon the Government and the Legislature that the medical question is quite as important to the community as it is to the medical profession itself.

That in the opinion of your memorialists the only way to arrive at a satisfactory settlement of the affairs of the medical profession will be in the first instance to incorporate, by royal charter, the general practitioners in a College of Medicine, Surgery, and Midwifery.

That your memorialists respectfully beg it to be borne in mind that the general practitioners constitute at least nine-tenths of the medical profession; that the duties which devolve upon them are of vital importance to the public; and that no act of the Legislature, or of the corporations, can prevent by far the largest portion of the public from being intrusted to their exclusive professional care. That the attainments of the present race of general practitioners are of the highest order, and are highly honourable to the profession, but that their position is most grievous and anomalous, from being excluded from the benefits and respectability of a legal incorporation.

That your memorialists entertain a confident hope that they have succeeded in convincing the Right Honourable the Secretary of State of the just claims of the highly meritorious body they represent, to a legally recognised position; and your memorialists fully trust that those arguments which were found successful with a former Government, and which were so far acted upon as to have induced a former Secretary of State to state in his place in Parliament his intention to incorporate by royal charter the general practitioners, may have lost none of their force, or be less conclusive than formerly of the justice of their claims, and of the paramount necessity of this preliminary measure being forthwith adopted.

That, in conclusion, your memorialists beg respectfully, yet most emphatically, to reiterate their grave and deliberate opinion that it would tend materially to the advancement of science, to the welfare of the community, and to the best interests of the medical profession, if the prayer of this memorial were graciously acceded to, by which the general practitioners would be duly recognised, and, by a properly defined title, be placed amongst the medical institutions of this enlightened country.

(Signed) R. R. Pennington, President.

The National Institute of Medicine, Surgery, and Midwifery, 4, Hanover-square, Dec. 8.

FACTS AND ARGUMENTS IN SUPPORT OF "THE HUMANE SYSTEM OF NON-RESTRAINT AND NON-SECLUSION."

By WILLIAM SMITH, M.R.C.S.E.,

Formerly House-Surgeon to the Lincoln Lunatic Asylum, Member of the Association of Medical Officers of Hospitals for the Insane.

"Nil sine magno
"Vita labore dedit mortalibus."—Hor.

(Continued from p. 155.)

In my last communication I merely quoted a number of extracts from various publications which have emanated from some of the largest and best conducted lunatic hospitals in the kingdom. I propose in the present paper to enter more minutely into the charges brought by Dr. Nicholson against "the humane system of non-restraint and non-seclusion." But, whilst doing so, I wish it to be distinctly understood, that I by no means cordially approve of all the arrangements connected with the *peculiar* management of Lincoln. This much, however, I am disposed to maintain, that the Lincoln Asylum, with all its defects (and they are by no means few), has been the pioneer in most of the grand improvements introduced of late years into the management of our public lunatic hospitals.

But to discuss Dr. Nicholson's assertions. He says, "When Dr. Charlesworth first set sail in the 'total abolition' bark, he classified his passengers, his craft was well manned with attendants, and seclusion was his rudder, by means of which he kept his course midst a stormy sea; but in an evil hour he abandoned his helm, and, since then, his vessel has been unmanageable, and nothing but disasters have befallen it; and now, rather than resume the pilotage, he prefers shipwreck." If Dr. Nicholson will take the trouble to descend from the lofty regions of metaphor, I will endeavour to prove, by a plain statement of facts, that he has taken up a position which is wholly untenable. *Dr. Charlesworth (as also Dr. Elmhirst, and many other governors resident in Lincoln) became a strong supporter of the non-seclusion system in consequence of having witnessed the rapid and almost miraculous improvement which took place in the moral condition of the far-famed C. A. and other refractory patients on being released entirely from seclusion.* Now, when it is borne in mind that this experiment, and the happy results produced thereby, *actually took place during my house-surgeoncy, and not years prior to Dr. Nicholson's taking up his residence in Lincoln*, I think every candid person will admit that I am the most likely to be conversant with the facts. My own impression (the result of practical experience) is, that *solitary confinement* or *seclusion* is calculated to exercise a more prejudicial influence upon the moral and physical condition of the insane than even *mechanical restraint*, and it was in consequence of witnessing the bad effects produced upon C. A. by solitary confinement that I determined upon the attempt to procure its abolition; moreover, if my memory be correct, I think the annals of our public gaols will prove that persons who have undergone *solitary confinement* for any lengthened period have, in numerous instances, become afflicted with mental derangement to a greater or less degree. *The non-seclusion system, like its predecessor, non-restraint, was not adopted by the Lincoln governors as the result of mere theory, but from practical experience, and not without mature deliberation.* It will not, perhaps, be deemed extraneous to the present discussion for me to introduce in this place some of the documents by which the boards were induced to give their official sanction to the system. With this view I shall proceed to quote two letters, addressed by me to the boards, relative to non-seclusion.

"Lincoln Lunatic Asylum, Oct. 25, 1841.

"Gentlemen,—In pursuance of my pledge to the board (Sept. 6th ult.), I beg leave to state that I have, throughout the last six weeks, released C. A. entirely from her state of seclusion; and that I now feel myself competent to her future management, without further recourse to such means; her improved general demeanour and increased tractability having proved favourable to this conclusion. The success of the experiment, and the reflections to which the case of this patient has given rise, have impressed me with a conviction that solitary confinement, as a means of control, may be as successfully and usefully dispensed with in this institution, under well-disposed and practised attendants and vigilant superintendence, as instrumental restraint has already been; and I have, with the knowledge of the board, commenced the undertaking. I shall continue steadily to watch the proceeding, that I may be enabled to record faithfully the results, for the satisfaction of the board; and having found that more than usual vigilance will, for a time, be indispensable towards securing the co-operation of the attendants who had, before I had gained confidence to judge for myself, become accustomed to rely upon seclusion, instead of increased attention, in troublesome cases. The answers elicited from nurses recently examined before the boards, touching this point, expose the unsoundness of the practice, from which I have departed to take my stand, I trust, on firmer ground. Lunatic violence, under sudden impulse, must be expected in lunatic asylums, and never can be totally suppressed, except by perpetual restraint or perpetual seclusion, far more injurious and distressing than an occasional blow under temporary excitement. Moreover, the official books exhibit evidence, weekly, of violent collisions during the long period of C. A.'s seclusion, and the general employment of this agent proving its inefficacy as a source of protection.

"I remain, gentlemen,
"Your respectful and obedient servant,
"W. Smith, House-surgeon.
"To the Weekly Board of the Lincoln Lunatic Asylum."

This letter was entered upon the minutes, by order of the board, so that every governor who visited the establishment, and inspected the books lying on the board-room table, was cognisant of the experiment which was being made. At that period, as well as more recently, there was a difference of opinion amongst the members of the medical staff of the asylum relative to *mechanical* restraint. The late Dr. W. D. Cookson, one of the physicians, entertained views similar to those at present advocated by Dr. Nicholson; but mark the result. Dr. Cookson watched attentively the practical working of the system, frequently expending many hours daily in the asylum, until at length, being convinced of its entire practicability (with a candour and liberality which will ever reflect the highest honour upon his memory), he gave up all his preconceived notions on the subject, and, almost amongst the latest acts of his professional career, *declared himself* (in the official books) *a convert to the humane system of non-restraint and non-seclusion.* The system was found to work admirably, and a most decided improvement occurred, more especially in the refractory wards. More than four months having elapsed, and nothing having occurred to shake my confidence as to the complete utility and practicability of the measure—the attendants, moreover, having quietly fallen into the habit of increased attention required under the disuse of seclusion—I addressed a second letter on the subject to the General Quarterly Board, holden in January, as follows:—

"Lincoln Lunatic Asylum, Jan. 2, 1842.

"Gentlemen,—I feel it to be a duty I owe to the board to communicate to them the result of

the experiment, which I undertook to make four months since, with regard to the practicability of managing C. A. without a further continuance of solitary confinement; and I have great pleasure in being able to state that success, even beyond my most sanguine expectations, has attended the attempt. The moral condition of this patient has been gradually improving ever since her release from seclusion, without a single instance of its repetition; and, after a few outbreaks in the commencement of the change in her treatment, she has become tractable, good-natured, sensible of kindness, conscious of approbation, accompanies her attendant in walks into the country or on business with the shops in the town, and mixes harmlessly and happily with the other patients at their monthly tea-drinkings and dances. I have also great pleasure in stating further, that my experiment of abolishing altogether solitary confinement in this institution, undertaken at the same period as the experiment with C. A., has proved equally successful; and the extraordinary improvement which has followed in the good order of the north galleries, remarked upon by the official visitors and by strangers, confirms my belief that this practice may be safely and, I trust, advantageously introduced into other asylums, as an accompaniment and part of the humane system of the disuse of instruments—a system now in the course of being adopted throughout the kingdom.

"I remain, gentlemen,

"Your respectful and obedient servant,

WM. SMITH, House-surgeon.

"To the General Board of the Lincoln Lunatic Asylum."

Now, what are we to understand by Dr. Nicholson's assertion, "But in an evil hour he abandoned his helm, and, since then, his vessel has been unmanageable, and nothing but disasters have befallen it," &c.? I would ask Dr. Nicholson, in what state I left the asylum on entering upon the duties of house-surgeon to the Lincoln County Hospital in January, 1843? Was not the establishment in a tranquil, orderly, and creditable condition, and "well manned" with humane and experienced attendants? And further, did not the late Dr. Cookson (who had been one of the most strenuous opponents of the humane system of non-restraint and non-seclusion) visit the hospital on the day of election, for the express purpose of securing me a vote, thereby proving the favourable opinion he entertained of my management of the patients in the asylum? Did not my immediate successor, Mr. Wm. Graham, carry out the system (introduced by me) during the whole of his house-surgeoncy? Has not Mr. Walsh, the present house-surgeon, strictly adhered to the same system? Did not the late Dr. W. D. Cookson, who had been for ten years and a half physician to the asylum (and consequently more experienced by far than Dr. Nicholson himself), become a convert to this very system, after having carefully watched its operation? If all these facts can be proved, and, undoubtedly, a reference to the official books of the asylum would place the matter beyond the probability of a doubt, what becomes of the position taken up by Dr. Nicholson?

Dr. Nicholson further remarks, "The governors of the Lincoln Asylum have erred in introducing the 'non-restraint system.' As a general rule of practice, they have erred in prohibiting seclusion; and they have most grievously committed themselves in abolishing all classification." Now, with all due deference to the doctor (whose practical experience of the habits of the insane has not been so extensive as my own), I must beg to differ with him *toto cœlo*, and that too on all the points at issue. The "non-restraint system" has stood the test of *ten years and a half's experience at Lincoln*, and, probably, in no institution have its merits been more severely tested than at its original birthplace. At the *Hanwell Asylum* (*latterly with an average of* 1000 *patients*) it has been in constant operation *for more than seven years. At Lancaster* (*containing* 700 *patients*) the humane system has never been infringed upon since its adoption. At *Gartnavel, near Glasgow*, a noble asylum has been erected, with the express intention, on the part of its directors, "*that no bodily mechanical restraint shall ever be used in it*" (I quote from the Fourth Report of Dr. Conolly, page 174); and under the able management of its talented physician, Dr. William Hutchison, that intention has hitherto been most strictly adhered to. I might mention the *Northampton General Lunatic Asylum*, the *Gloucester*, and many other large and well-conducted public hospitals for the insane, where the system has been for several years in successful operation; in fact, there is not a single establishment (to the best of my knowledge) where the system, once fairly set in operation, has ever been abandoned; and I feel that confidence in the moral firmness of the Lincoln governors, that they will not permit a system which has conferred so many benefits upon the insane to be strangled at its fountain head. I would further remark, that the operation of the "humane system" has not stopped at this point; *the history of the Royal Hospital of Bethlem, of Wakefield, Nottingham, and many other public lunatic hospitals, has clearly demonstrated the fact, that this system has had a much more extended range of usefulness. The force of public opinion, the pressure from without, has compelled those establishments to diminish very materially the amount of mechanical restraint employed. The reports of several public asylums* (which I have read attentively) *strongly denounced the system at its commencement as absurd, visionary, and utopian; whilst others, even still more inconsistent, actually adopted the practice, whilst they faintly contested the theory.*

On reference to the Physicians' Report of Bethlem Hospital for the year 1845, pages 11 and 12, I find the following remarks:—"Great pains have been employed to reduce the ratio of restraint as far as possible, compatibly with the safety of the patients, and those about them. The proportion, which appeared in the last general report to have been—

In 1839 ..	11 3/13	In 1842 ..	3
1840 ..	13 10/13	1843 ..	3 4/13
1841 ..	9	1844 ..	1 3 4/13

stands in the year 1845 at 1 10/13.

No instance whatever of suicide has occurred during the year, nor have any cases arisen which have rendered inquests necessary—a circumstance peculiarly satisfactory to the officers of a public institution." The "non-restraint system" has even gone a step further, for, by means of the free and animated discussions which took place in the medical journals, *it has tended to disabuse the public mind relative "to the popular belief in the ungovernable ferocity of the insane,"—a belief "encouraged by persons more studious of their own ease and enjoyment than that of the patients intrusted to their care;" it has tended very materially to correct such prejudices, and their evil consequences, "by opening examples of a milder management to the inspection of society, which has a deep personal concern in the mild or harsh treatment of a complaint which may affect any, either personally or through relatives and friends;" it has banished from the wards of our well-regulated lunatic hospitals those diabolical and filth-engendering contrivances termed restraint-chairs, wherein formerly might have been seen unhappy patients strapped down in rows (like cattle at Smithfield, or malefactors in the pillory), deprived of the slightest motion of their cramped extremities, incapacitated from attending to the calls of nature, and thus (of necessity) rendered drivellers and loathsome objects to every one about them!* Is Dr. Nicholson desirous of reviving the horrors and atrocities of *old Bedlam* and the *York Asylum?* With reference to "non-seclusion" Dr. Nicholson is merely reiterating one of the vapid complaints of the Commissioners in Lunacy, who remark, "There is no room where a violent patient can be secluded." The governors of the Lincoln Asylum, in their counter-statement, observe:—"If by seclusion the two visiting commissioners mean 'solitary confinement,' it should be observed that such rooms formerly existed, and have been intentionally abolished; the violence of patients is now readily controlled by the watchfulness of attendants, rendering solitary confinement totally unnecessary. The Lincoln board prides itself upon the abolition of seclusion as a means of control, considering this improvement as next in importance to the abolition of instrumental restraint; requiring, indeed, like the former improvement, a liberal supply of attendants not distracted by other employments."

In consequence of the length to which these observations have extended, I am compelled to cut short the present paper. Should the editor, however, permit me space for another communication, it will be my object to discuss, as briefly as possible, the arguments of Dr. Nicholson relative to the motives of the governors "in abolishing all classification of the patients," and to offer a few remarks relative to the cases of the late John Cottingham and Dixon.

King-street, Belper, Dec. 15.

CASE OF BURN.—DEATH.

Communicated by JOHN COGHLAN, M.D., Wexford.

On the 20th ult., about ten o'clock at night, a servant maid discovered a fire in the top of a workshop, five stories high, at the rear of the dwelling-house of the respectable firm of Jones and Sons, cabinet-makers, of Wexford. She immediately gave the alarm, when two young men, brothers, and their father, ran together to the workshop and mounted the stair, the younger brother taking the lead till they reached the fourth story; when, seeing some shavings on fire, he stopped to throw over them a table-top, which lay in the way. The elder, in the mean time, ran up the ladder which led to the top, where the fire originated, and had only time to be fairly up, when the younger brother, who followed, hearing him groan, rushed through the smoke to where he was, and found him lying across a bench in a state of insensibility. He seized him round the waist, and by a great effort carried him down, and left him in charge with his father. Shortly afterwards Dr. Goodall and I saw him, and found his face, eyes, interior of the nose, tip of the tongue, and side of the neck superficially burned; his hands and half up the forearms completely denuded of cuticle. On taking off his clothes, we found one shoulder and side, the arms, hips, thighs, and legs, to the ankles, extensively burned in large patches, of different degrees of severity, though the clothes were not even marked by fire, except slightly on the cuffs of his coat. When we saw him he had recovered consciousness, but could give no account of what occurred after his going up the ladder. In the progress of the case there was nothing unusual; the parts were dressed with raw cotton, and he recovered from the state of collapse under the use of mild stimulants. On the following day we found him blind, from effusion under the conjunctival covering of the corneæ, and with bronchitis occupying both sides of his chest. The bronchitis increased and terminated his existence on Wednesday last, the eleventh day from the receipt of the injuries. The fire, I should mention, originated (they know not how) among tightly-packed wood shavings, and was got under without extending beyond them.

Now, the points in the case which I find difficult of explanation are,—First, how he became so suddenly asphyxyated; the evidence of his brother, father, and servant, going to prove that he was not twenty seconds in the room, and his brother, who followed immediately after, escaping uninjured; and then, how he came to be so extensively burned on the parts covered by his clothes. It has occurred to me, that the steam arising from, perhaps, damp shavings was the cause of the mischief; but, then, that would not account for his being burned in patches, and so deeply, in so short a time, for there was a patch on his shoulder as large as the hand, burned to the third degree of Dupuytren at least.

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SUCCESSFUL FORCEPS CASE UNDER THE INFLUENCE OF CHLOROFORM.

By ALEXANDER TYLER, M.D.L., K. and Q.C.P.I., Lecturer on Midwifery, &c.

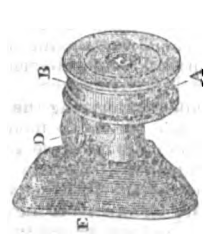
Mrs. M., residing in Bishop-street, Dublin, aged 35, mother of seven children, all born naturally, and now alive; once had twins; former labours averaging from ten to twelve hours in duration; children large, and the heads considerably elongated when born. First complained of pains in her back on Saturday evening, the 18th of Dec., 1847, accompanied with a bloody mucous show. Uterine action did not set in brisk until next evening. When Mr. Dormer first saw her, at two A.M. on Monday morning, the os uteri was dilated to the size of a shilling; at six A.M. it was as large as a crownpiece; when, being satisfied that the head presented, he ruptured the membranes and allowed a large quantity of liquor amnii to escape. Some hours afterwards he administered the secale cornutum, with the desired effect of exciting powerful uterine action, which continued with little intermission until three P.M., when I was requested to see her. On examination I found the presenting part high up, occupying the brim of the pelvis, where, Mr. Dormer informed me, it had been for several hours without any advance being made. Her pulse was 110; tongue foul; expression of countenance anxious. I deferred interfering for another hour, when, finding that in the mean time no advance had been made, although the pains were constant and severe, I decided on delivering with the forceps, the woman's condition being evidently worse, and requiring speedy relief. She was previous to the operation put under the influence of chloroform, and whilst insensible I delivered her safely of a large female child, alive. The soporific effects of the chloroform continued for twenty minutes after, until the placenta was expelled by the contractions of the uterus, assisted by the firm pressure of the hand over the fundus. Soon after she recovered her senses, but was totally unaware of what had passed. This woman had been in bad health for some months back, and when her labour supervened was only recovering from the prevailing epidemic, influenza.

A NEW INSTRUMENT FOR THE INHALATION OF THE VAPOUR OF CHLOROFORM.

Invented by C. STOKES, Esq., Dental Surgeon, M.R.C.S.

The very general use of the vapour of chloroform as an anæsthetic agent has induced me to turn my attention to the construction of an instrument in which should be combined the advantages of facility in application and certainty of effect.

It is an objection, practically well founded, that, when chloroform is administered through the medium of a piece of linen or a sponge, contact with the skin is almost unavoidable, in which case it produces vesication, a result sufficiently disadvantageous to warrant the adoption of a different method, especially if it shall be found to possess all the advantages of the simple mode of application originally proposed by Dr. Simpson, without the inconvenience already mentioned as of frequent occurrence in the use of this otherwise invaluable agent. The following description of the instrument will sufficiently explain the general construction and action of this instrument:—



A. Metal box for the introduction of a sponge, which is retained between two perforated metal plates.

B. The opening in the box through which the chloroform is poured; this is closed by a revolving slide.

C. A valve admitting the air for respiration.

D. The valve for expiration.

E. Chamber for enclosing the mouth and nose.(a)

For the convenience of portability, the chamber for the nose and mouth can be detached at will by unscrewing it at its junction with the apparatus.

65, Lower Brook-street.

(a) Designed by Mr. Hawksley, of Margaret-street.

THE STATUS OF THE MEDICAL PROFESSION CONSIDERED IN CONNECTION WITH ITS EDUCATIONAL SYSTEM.

By P. BRADY, M.R.C.S.L.

It may be regarded, I think, as an axiomatic truth, that the respectability of a profession is closely connected with the intellectual attainments of its members; and, when we consider the present *status* of the medical profession, this truth becomes very clearly manifested. It must be acknowledged that the profession, in this country at least, has never been at a lower ebb in general estimation than that to which it has now receded; and a very little reflection will, I believe, enable us to trace the chief cause of its degradation to the rapid increase of a class of members whose education, moral and intellectual, by no means adapts them for its pursuits. If this be a just premise, it must be granted that the subject becomes one of grave importance to the well-being of the profession; but, exclusive of this somewhat selfish consideration, it is one in which the interest of the whole community is deeply involved. The education of those to whom the public health is intrusted becomes a matter of momentous interest to all, and the first object of those who aim at improving the *status* of the profession should be directed to the awakening of this great truth in the public mind.

The routine of a medical education and the possession of a diploma is too often regarded as a guarantee for the knowledge of its possessor, and, ignorant of the facility with which the diploma may have been procured, or of its intrinsic value, his *fiat* of life and death is received with boundless confidence in his diplomatic authority. But, under the system which has hitherto been adopted by most of the medical colleges and universities of these countries, it must be granted, however painful the reflection, that numbers are annually installed with diplomatic honours whose capacity to undertake the important and highly responsible duties of the profession is indeed extremely limited. I have often been struck with astonishment at the apparent unconsciousness of moral obligation with which some practitioners undertake the treatment of the most serious diseases. A short time ago a medical friend informed me that he was requested by a tradesman's wife to visit her husband, who, as he afterwards ascertained, had been under the care of another practitioner. He found the man labouring under a severe attack of acute pericarditis, but refused to interfere in the case, except in consultation with the gentleman then attending. An interview was the result, and my friend ascertained that the case was treated as one of pleurisy; but the gentleman attending stated that he had a general aversion to bleeding, and could see no indication for it in that instance! My friend informed him that he considered the man in imminent danger, that he should advise bleeding largely, and mercurializing as speedily as possible, to which he reluctantly assented, and the disease, under this treatment, soon showed symptoms of subjugation. Another practitioner, who consulted me on a case in which the first stage of labour was protracted beyond thirty hours, from rigidity of the *os uteri*, in a strong and plethoric patient, was evidently surprised when I recommended the use of the lancet, never having heard of its application to such cases! And the same practitioner, relating a case of concussion of the brain accompanied with bleeding from the ear, with an assumed pride of anatomical accuracy, informed me that the bleeding in such cases always proceeded from the *middle meningeal artery!* He requested that I should examine the case; and, on doing so, I found that the patient, a man of sanguine temperament, had a fall, from which the brain was very slightly concussed; no stupor supervened, and the oozing of blood, which had been very trifling, in all probability had exuded from a ruptured vessel of the mucous membrane. The patient completely recovered in a few days.

These, unfortunately, are not isolated instances. It is a melancholy truth, that they might be repeated *ad infinitum*, affording pictures which exhibit in strong colours the degraded condition to which the profession has been reduced under its present educational system. It cannot be denied, however, that it can boast, even under its present unfavourable auspices, of numerous scions of a better stock—men who cultivate the noble science of their adoption with a diligence not merely inspired by an obedience to the moral obligations it entails, but imbued with a love of science for science' sake, and a genuine desire for its advancement; but, alas! such men are not unfrequently found in its humbler grades, while the paths of popular fame and emolument are lorded over by those who have no other claim to their standing than that derived from the flimsy badge of some venal corporation. These are harsh truths, but truths which, nevertheless, few will have the hardihood to disavow; and it is only by their frequent repetition that the attention of the constituted authorities will be aroused to their consideration.

In general, medical affairs are so little regarded by the lay portion of society, that, on their introduction in the House of Commons, the benches became speedily vacated; but, should our shores be visited by a dangerous epidemic, this criminal indifference to a subject so intimately connected with the best interests of society soon changes to excessive zeal. The machinery of the State is set in motion—a vigorous quarantine is enacted, local boards are formed, cesspools are baled out, sewers are cleansed, the public mind is in a fever of commotion, for a demonstrative danger is presented to it. From the peer to the peasant, all are on the *qui vive;* the press labours with communications on the subject, and it becomes a prominent topic for leaders and pamphlets. Every essay at the introduction of a remedy or preventive is hailed with passionate enthusiasm, and the medical man becomes, for the time, the most important member of the community. But all this hubbub subsides with the pernicious influence of the epidemic—the evil is soon forgotten. Boards of health are dissolved, the press is soon occupied with matters of more immediate interest, and the moment a clean bill of health is presented, with reference to the epidemic, "the doctor" dwindles into his quondam insignificance. In vain is it represented that, owing to the decline of indigenous disorders during the prevalence of the epidemic, the average mortality is, after all, but little increased. Fevers, organic inflammation, disorders of the urinary and digestive systems, consumption, insanity, and the host of diseases which annually decimate the population of these countries, are so frequently exhibited to the public eye that they are regarded with comparative indifference, and are willingly resigned to the management of the innumerable practitioners of the healing art who are scattered about every town and village. Few take the trouble to inquire how and whence the diploma has been procured which confers on its possessor a legal right to treat those formidable diseases which it will often baffle the efforts of the most cultivated intellects and the most superior powers of judg-

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ment even to diagnose correctly. Why should the public, even allowing them the capability, take the trouble to inquire into the actual merits of those who have already undergone the ordeal of an examination before some legally-constituted body, and who, perhaps, appear amongst them decorated with the insignia of some royal college or university?

To the mass of the people, the comparative merits of the members of the medical profession is shrouded in impenetrable mystery; and some lucky chance, aided by a well-disciplined tact, will often elevate the most ignorant practitioner to the summit of public favour, whilst he who has, perhaps, for years devoted his best energies to the attainment of professional knowledge is left to sicken over his blighted hopes, unnoticed and unknown!

Is it not an undeniable fact that some diplomas, although ranking high in public estimation, afford no real guarantee that their possessors are capable of administering even a dose of calomel with propriety? Is it not an unquestionable truth that many are annually dubbed with the appellatives of "doctor" and "surgeon" who are as little acquainted with anatomy or the principles of medicine as the veriest quack who gathers his simples under some special lunar influence, in order to ensure their potency? These important truths must be prominently set forth if we would enlist the services either of the Government, the people, or the press in the cause of medical reform, which reform, whatever the character of the superstructure, must have for its basis a well-wrought system of moral and intellectual culture.

But in order to effect this the most strenuous and untiring efforts will be required; the difficulties to be surmounted are manifold; there is no concealing the fact. The chartered councils have a double interest in maintaining a base conservatism, with reference to the educational system. 'Tis true we have numerous hospitals, where every facility is afforded for witnessing disease in all its protean forms, many very well conducted schools, and some able and eloquent teachers; but while the seeds of knowledge, session after session, are thus lavishly strewn, alas! how often do they fall on ground incapable of affording them efficient nurture! The mind, even when industriously exerted, will often vainly endeavour to acquire a knowledge of the art of medicine, connected as it is with so many collateral sciences, whose powers of thought, memory, and judgment have not been perfected by a judicious training in mathematics, physics, and mental philosophy; but the mind, whose *moral* as well as mental culture has been neglected, reckless of consequences and heedless of responsibility, will not be exerted at all; and, with the exception of a superficial smattering, which is worse than valueless, will be as vacant at the end of the chapter as it was at the beginning.

No doubt the plethoric exchequers of certain corporations would be rapidly reduced by the adoption of a severe code; and this may be one reason for the liberality of the examining board. But another reason for their facile admission of members may be found in the dread of the antagonism of men whose professional knowledge would be based on a sound preliminary education. There is little chance of their being overtopped by the ambition of students, who spend their mornings drinking soda-water and their evenings at the *salle de danse*; who, during their occasional visits to hospitals, imbibe more of "half-and-half" than of the art of healing; who glean their smattering of anatomy from the "picture-books" of the day, and their therapeutics from the Pharmacopœia; and who are at length licked into the presence of the examiners by the indefatigable exertions of the grinder. I must not be understood to affirm that all medical students pursue this unworthy course; I sincerely hope that those who do so are the exceptions to the rule; it cannot, however, be denied that the instances are numerous in which advantage is taken of the facilities afforded for entering the profession, after the most superficial and desultory educational course, and too often with a profound ignorance of even the first principles of the art. After this mode are licensed those traders on public credulity whose derogatory conduct has reduced the profession to its present contemptible level. Imbued with a consciousness of their own inferiority, they descend to the meanest tricks to obtain a popularity which they cannot command by any honourable means. Such men lose no opportunity of depreciating a brother practitioner in public estimation. When invited to send in a tender for medical attendance on a society or club, their object is not to consider what may be a fair remuneration for their services, under the circumstances, but what sum may possibly be a shilling or sixpence below the tenders of their opponents in this disgraceful competition. What boots it to complain of the wretched *status* of medical officers in the public service, when numbers of these professional hydras are ever gaping to receive them? What grounds have the union medical officers to expect an ameliorated position, whilst it may be said to them—"Gentlemen, we have no desire to press the situations on you; there are many who will consider the salaries sufficiently remunerative"! I do not mean to discourage the manly efforts of those highly deserving gentlemen who form the majority of the union medical officers, to amend their present anomalous positions; on the contrary, would that any argument I could advance would tend to add increased energy to their efforts. Every member of the community must have an interest in the honest and efficient working of the poor-laws, from the Government which framed them, to the humblest recipient of the public bounty. The laws of England are proverbially founded on the highest principles of justice, and her institutions grounded on the purest philanthropy; but the noblest plans, and best-wrought purposes, are not unfrequently ruined by those who are intrusted to carry out their details; of this fact the working of the present system of poor-laws affords striking evidence. How vain would have been the richly-elaborated fancies of a Milton or a Shakspere, if the pen refused to catch the evanescent thought, and fix it for ever upon the adamantine tablets of Fame! How vain would have been the glorious creative efforts of the architectural genius of former ages, had there been no trusty hands to rear the column, to curve the frieze, and embody the sublime conceptions of the architect in works whose exquisite perfection is calculated to awaken the ambition, while it excites the admiration of succeeding ages! Whilst we contemplate those beauteous structures, we are rapt in astonishment and delight; but in the eyes of all, how trifling should they be compared with the moral structure which is based on principles promulgated by the Almighty Architect of the Universe, and of which the details alone are left in our hands! Such is the fabric of the present poor-law, based on the heaven-created principles of Charity and good will—to feed the hungry, to clothe the naked, to heal the sick, are the objects it has in view; but are these objects efficiently carried out in its working, or are they not rather too frequently rendered a mere mockery and delusion; whilst the framers of the law, satiated with the formality of its construction, patiently witness its divine principles sacrificed to a debasing economy? It was never intended that the medical officers under the system, while they contributed to the support of the law in an equal ratio with other members of the community, should, in addition, give up the professional services on which they are themselves dependent, without a fair remuneration. There are, doubtless, many individuals amongst the medical attendants on the poor who refuse to regard the amount of their pay in the performance of their onerous but interesting duties; but, unfortunately, we are not all moral philosophers!—and, unfortunately, also, the pecuniary circumstances of the great majority render it physically impossible on their parts to fulfil, with justice to the poor, their highly responsible duties; and thus one of the most important departments of the system is left for its successful issue to the effects of chance!

It can hardly be doubted that a due exposition of this monstrous evil will awaken the authorities to the necessity for its redress, and that this dangerous spirit of parsimony will no longer be permitted to counteract the highest objects of the law. But, whilst we agitate for the redress of particular grievances, we must not lose sight of the great fact, that the *status* of the profession will depend for its advancement mainly on a remodelling of the educational system (a). Let it be once acknowledged that the cause we advocate is not merely that of a class or profession, but one in which every subject of the realm is vitally interested, and the first efficient move will have been made. The tide of public opinion must be turned through the Augean stables of corruption and rottenness—the chartered medical institutions. The system of interest and favouritism which invariably obtains in the election of physicians and surgeons to hospitals, dispensaries, &c., to the exclusion of real merit, must be abolished. We often hear expressions of surprise at the tortoise pace at which the art of medicine advances, but the wonder ceases when we witness the honours and emoluments of the profession conferred on the *protégés* of the powerful and influential, while intellects of the highest order not unfrequently decline the hopeless and ignominious contests. In every such atrocious instance an effective check is given to the springs of science; and yet such flagrant jobs have become so familiar, from their frequent perpetration, that they are regarded with little more than a passing comment or a hasty censure.

Let us, then, unceasingly agitate for the removal of the numerous and gross abuses under which the profession labours. Let us, by the perpetual exposition of our grievances, endeavour to enlist the sympathies of the public, and the services of the public press in advocating their redress; but, above all things, let us never forget that all efforts must be futile and ineffective which are unaccompanied by those two essential requisites—unanimity of opinion and co-operation in action.

FREE HOSPITAL OPERATIONS.

[We extract the following from the *Morning Herald* of Wednesday. Similar things have been prepared for, and published in, the other morning journals. The circumstances will be appreciated without any comment from us.—Ed.]

The Royal Free Hospital.—Painless Operations.—We were yesterday invited to witness some operations at the Royal Free Hospital, Gray's-inn-road, for the purpose of testing the comparative merits of chloroform and ether vapour. Considerable interest was felt by the medical public, from the circumstance of one of the operations to be performed being novel to this country—namely, the removal of a diseased os calcis and astragulus, the bones which form the heel portion of the foot. Mr. Thomas Wakley, jun., was the operator in all the cases, and the anæsthetical agents were administered by Mr. Robinson, of Gower-street, with his newly-invented apparatus. The first case was one of strabismus, or squinting, in which the cure is effected by the division of certain muscles of the eye. The patient readily inhaled the chloroform, and after some spasmodic twitching of the limbs a state of coma was produced, and he remained perfectly passive and quiescent under the hands

(a) While condemning the systems of medical education, and the facile modes of examination generally adopted in these countries, it is but fair to add that there are a few exceptions, amongst which the University of London stands prominently forward. If the system pursued by this university were generally adopted, medicine, as an art, would soon occupy a more distinguished position.

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of the operator. The lower eye-lid was now drawn down, two or three slight cuts were made with the knife, and in half a minute the operation was over, the value of the chloroform in this case being shown by the complete insensibility of the eye, and the facility which it consequently afforded to the surgeon in making the necessary incisions. A little cold water sprinkled over the patient's face revived him immediately, and he walked away apparently doubtful if the operation had been performed. The next case in which the chloroform was also exhibited was the excision of a large fatty tumour from the shoulder-blade. In this case the patient, a female, was very much excited, and, after two or three inhalations, vehemently protested against the operation being proceeded with. This was partly owing to nervous irritability, and partly to having a short time previously taken some brandy, which had been injudiciously given to her to sustain her courage. She then became sick, which appeared to relieve her, and Mr. Robinson having explained the object with which the chloroform was administered, and what its effects would be, she expressed her willingness to try it again, and after inhaling for three or four minutes she became insensible. The tumour was now very dexterously and rapidly removed by Mr. Wakley, not more than half an ounce of blood having been lost, and the patient was then allowed to recover gradually. She was profuse in her expressions of gratitude, complained of lassitude, expressed a wish to lie down, and was removed to one of the hospital beds. On questioning her shortly afterwards, she appeared quite unconscious that the tumour had been removed; she felt no pain, but complained of weakness and depression of spirits. She also stated that she was frightened at the number of gentlemen by whom she was surrounded, and felt no inconvenience from inhaling the chloroform. The third and most interesting case was the removal of a portion of the foot. The patient, a man apparently thirty-five years old, and of a delicate scrofulous habit, had been attacked with caries of the bones forming the heel, and had strenuously resisted amputation of the leg, which had been advised as the only means of saving his life. Mr. Wakley then suggested the removal of the diseased bones, to which the patient assented. He exhibited great nerve and determination, and, after shaking hands with Mr. Wakley, stretched himself upon the couch, and commenced inhaling with great vigour. He was soon in a state of insensibility, and the operation commenced. It would be out of place in a non-medical publication to detail the difficult and complicated process by which the bones of the heel were laid bare, and detached from their articulation with the ancle joint; but when it is considered that the whole weight of the body is sustained by this single joint, which possesses at once great pliancy and enormous strength, the operation will appear sufficiently formidable. Mr. Wakley was ably assisted by Mr. Erasmus Wilson; and after a portion of the tibia (the large bone of the leg) had been removed to make an even surface, the divided vessels were taken up, the flaps turned down, and secured with fifteen sutures, and the whole operation terminated in twenty-five minutes from the time the patient had commenced inhaling. The loss of blood was between four and five ounces; and the patient, on recovering again, shook hands with the surgeon, and appeared in high spirits on finding that all was over. The last case was an operation for fistula, in which the vapour of ether was administered, and the result in this instance was equally satisfactory. Nothing could exceed the coolness, precision, and despatch with which Mr. Wakley performed the several operations we have detailed, and the medical gentlemen present expressed themselves highly gratified and interested by what they had witnessed. The general impression appeared to be in favour of chloroform; but it is evidently an agent of much greater power than ether, and requires considerable care and caution in its administration. Among the gentlemen present we observed Mr. Erasmus Wilson, Mr. Gay, Dr. Marsden, Dr. Bolton, Mr. Childs, Mr. Wakley, M.P., Mr. Churchill, Mr. Douglas Jerrold, Mr. Robinson, Mr. Bullock, Mr. Elliott, &c.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Sir Benjamin Collins Brodie, Bart., F.R.S., Examined.)

(Continued from page 204.)

The New Charter of the College.—I strongly approve of the new charter that was granted to the College of Surgeons in 1843; I think it works well. However, the mode of electing members of the council is awkward.

Election of Members of the Council.—I will describe that mode. The fellows may be nominated in succession according to seniority; and if a fellow be nominated and not elected on one election he may be proposed at a subsequent election, but if he be not then elected he is ineligible altogether. If he be not elected on the second nomination he is ineligible for ever. Whatever may have been his discoveries or his reputation he is for ever excluded from the council. I think it would be better if there were no restrictions of that kind upon the election. I do not think that restriction in practice does any great harm, but I think it is not good in principle. It would not be well for the reputation of the college that a man of great distinction and acquirements should not be elected as a member of the council; but I think that the period at which an individual would be proposed according to seniority is so late that his talents must be known. Any person adapted to take a prominent position in his profession will have shown his ability before he is forty years of age. I approve of the principle of seniority in the election of members of the council. I think on the whole it is better that they should be seniors: that it keeps up the character of the college. Though I think it better that individuals should be allowed to employ their own practitioners, I do not think that those who elect the council of the college should have the free choice of electing either young or old; it would be better to elect the seniors. Under the old charter they were not compelled to elect seniors; they might elect anybody. That John Hunter was elected to the council before his death I do not know; Sir Astley Cooper was not till a late period; the rule of seniority was attended to; but I think, in general, persons come into the council soon enough.

Difference of Examinations between Fellows and Members.—I said that the requirements from candidates now are of a higher order than formerly; what constitutes the essential difference between the examination of fellows and of members is, the fellows are examined in minute anatomy, and in physiology, and in scientific pathology, besides being examined in practice; the examination for the fellowship is a very extensive one, and all in writing. If we adopted the same examination, or required the same qualification from the members, it could not be complied with by those who are seeking for the diploma of the college at the age of twenty-one, or at the age of twenty-two: it would supersede practical study, which, after all, is of more importance to them than anything else. The fellows are required to have such a knowledge as persons ought to have who are to be teachers. Since the charter has been in operation, in the first two examinations, in December 1844 and April 1845, there were thirty-nine examined; what number have been examined since I do not know, but a great many; but for the young men the time is hardly come yet, because many are waiting till they attain twenty-five. I do not think that practically it injures the reputation of the members that the public should be informed that there is a body of men belonging to the same college who have undergone a higher examination than themselves; and I do not believe the members generally trouble their heads about it. When I was president, and had to admit a young man as a member, I said to him, "In addition to such privileges as you now have as member, you have this privilege: if you will continue to improve yourself while you are in practice, you may come up at the end of so many years without any further professional study in the schools, and may be admitted to the fellowship;" and I am led to believe that that has induced many young men to aspire to the higher distinction. To young men who were studying midwifery there was a bar to their being elected to the council, unless they discontinue it. They must discontinue the practice of midwifery or pharmacy before they can be admitted to the council. I do not know that I approve of that arrangement with regard to midwifery, but with regard to pharmacy I do. I think it important that persons should leave off practising pharmacy before they can be appointed to the council; and I do not think that they would be elected. I think it of advantage to surgery that it should be kept to a certain extent a distinct profession. To a certain extent it may be kept distinct. A man may continue to call himself a surgeon, and yet not dispense medicines, but almost every surgeon who is in extensive practice is occasionally consulted in what may be called medical cases; but I should say not to a great extent. If persons come to me in strictly medical cases I send them away. If a person comes with a complaint in his lungs, I say, "You had better go to Dr. A. or Dr. B., or some other physician." I consider that the range of knowledge is so extensive that no individual can master the whole; and that if you are to do any good you must have a general knowledge of the whole; but cultivate one branch in particular. I do not say that the education should be the same, but that each person should in his education obtain a general knowledge of the whole. I do not think it is necessary for a physician to study all the minute parts of anatomy, and I do not think it is necessary for a surgeon to study physic as minutely as a physician ought to do, but I think that each should have a general knowledge of both branches.

Objections against a Single Faculty.—The education, as regards all the elementary branches, should be the same in both cases. I stated that I feared that if the profession were to consist of only one faculty, the higher departments of science would be neglected; because, if the whole profession be one faculty, the qualification must be the very minimum; and I think a young man, who begins practising at the age of twenty-one, and who looks to obtaining a livelihood at that age, is not so likely to advance the science of the profession as one who is able to continue his studies three or four years longer, and is not called upon, from any necessity, to obtain his immediate livelihood. But there are exceptions to all rules; I do not speak of those men of superior talents and industry who get over those and greater difficulties. In the College of Surgeons we have a superior and inferior qualification; but all are not content with the inferior qualification. Many come up for the higher one. That would be the case if a single faculty were established, there would be able men who would always desire to obtain higher titles; but at the same time I think it would prevent a good many highly educated men going into the profession. The College of Surgeons might at this moment in England constitute a single faculty, and there is no necessity for an individual passing the College of Physicians or Society of Apothecaries; but, even if that single faculty were established, we should not be without emulation, certainly. I think the examination for the fellows should be such as to prove that, if they are called upon so to do, they are qualified to act as teachers; every hospital surgeon is a teacher; but a man may be an excellent practitioner without having that qualification. There might be many qualified men

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who might be incapable of teaching, from their want of power to explain themselves perfectly; but they may prove their acquirements by coming up for the fellowship, if they please, at any period of their lives.

Examination of Members.—It is our endeavour in our examination of the members to secure to the public a competent body of practitioners as surgeons in all the ordinary duties which belong to the profession. We do not test the capabilities of the candidates in any way with regard to operations, for the reason I mentioned just now, that there is a difficulty in obtaining subjects; but it is very desirable. We do not require candidates to show that they have been subject to examination at the bedside of the sick. It would not be very desirable; I do not think anything would come of it; I have read that part of the bill, and I do not believe that it would be practicable. I cannot conceive any more severe check to the system of cramming that could be imposed; it could not be carried into practice. I cross-examined my own students at the bedside; but in the hospitals they would not allow me, by virtue of my office as an examiner, to come and examine the students at the bedside. If the law enforced it they would not be compelled to submit: a hospital belongs to the governors; the management is vested to the governors; that is, in the subscribers to it. If you took the hospital out of the hands of the governors they would feel no interest in it, and it would not be properly conducted; besides which, I think the best examination is but an imperfect test of knowledge; and the great benefit of a curriculum is, that it requires a certain time to be employed in study. I do not think that a single examination at the bedsides of patients would be much of a test. Though the curriculum requires the devotion of a certain portion of time to study, in many cases that time is not in fact applied to study, but the candidates make themselves competent to undergo the examination by cramming. A check can only be imposed by having a very good examination.

How the Apothecaries' Examination might be Improved.—The examinations which take place at Apothecaries' Hall I would improve by requiring that a certain number of those who have been accustomed to teach in the medical schools should be amongst the examiners. Under that arrangement, examiners are often accused of partiality at the examinations, but I do not believe that there is any partiality; I do not recollect any at our college. I am aware that objections have been raised; there will be on all occasions of that kind objections raised; but at the College of Surgeons great care is taken to prevent partiality. The examiners never examine those persons who have been their own pupils in the various hospitals and schools, at the College of Surgeons. It was never the practice in my time. Even after I had resigned my office of surgeon at St. George's Hospital, I never examined St. George's pupils. I will give the committee an answer at a future day, if they wish it, on the subject of medical education, with a view of rendering it more effectual by legislation.

Defects of the Registration Bill.—With reference to the bill before the House, I have stated that I do not consider the mode of registration there suggested could be carried into effect as to existing practitioners. Some persons ought to be registered who, under that bill, would not be registered, and some would be registered who ought not to be registered.

Scotch Degrees.—The objection would apply to Schedule (C) in the bill if it was said, "A. B. degree granted by St. Andrew's University;" at least it might apply there, or it might not. It would apply if there were a gentleman practising here with a Berlin degree; he might be a very well-qualified practitioner, and he might have an extensive practice in the country, but he would not be included in this register. If he had no other qualification than that Berlin degree, he would not be included; and yet he might be a great deal better qualified than a St. Andrew's graduate. But hitherto that individual has been practising illegally. All the Edinburgh practitioners who have not obtained a licence here in some sense practise illegally. According to the law, no man is a licensed physician in England who has not an Oxford or Cambridge degree, or a licence of the College of Physicians; those physicians to whom I allude have not that qualification, therefore, strictly they are not legally qualified; but your bill would render those persons qualified, because you allow any man who has an Edinburgh degree to practise. The provision of the bill is, that any person who is legally qualified to practise in any part of her Majesty's dominions shall be registered; that was the provision in the bill of which I approved, and it is quite proper that it should be so; but what I meant to say is, that there should be a discretionary power given to those to whom the registration is confided, and that discretionary power would be too much for any individual to have.

Foreign Degrees.—I think if a gentleman has got a degree from Paris, and he is resident in any part of the country as a physician, and conducts himself respectably there as a physician, and is consulted by the people of the neighbourhood, it ought to be out of the question to tell him, "You must go away, you must not practise," when he is allowed now to do so. If an individual is practising surgery, though not a member of the College of Surgeons, I consider it would be very unjust to send him away and not allow him to practise; in fact, he is a legal practitioner already. If he held a diploma in surgery from the University of Paris, and he had been practising in England for a considerable time, and had obtained repute and respectability in the neighbourhood, it would be hard to exclude him from the system of registration. Nay, more, if he had not a diploma of any kind, but had been received by the public as a practitioner in surgery, you should not turn him away, and say, "You shall not practise." Some of our best country surgeons are in that position. If a person had a foreign diploma in surgery, that objection would still more apply. If an individual presented himself at our college, and produced no other testimonial than his character of respectability in the neighbourhood where he practised, and the diploma of a foreign university, I believe we should admit him upon a foreign diploma for examination; but I will not be certain. There is a discretion left to the Court of Examiners. I think there have been instances, but I will not say positively, in which a person holding only such a diploma has been admitted to examination for the diploma of the College of Surgeons. I cannot be positive that such a case has fallen under our consideration.

Non-licensed Apothecaries.—I consider that persons who have been practising only as apothecaries, and who have been knowingly violating the laws for a long series of years, ought to be registered; many of those are very proper persons to practise, as merely from some technicality they have not been able to be examined by the Company of Apothecaries. Persons who have not been medically educated at all ought not to be allowed to practise, and ought not to be included in the register; but if an Edinburgh physician has been practising here as an apothecary, and the Company of Apothecaries have never taken any measure to stop him, and the public have received him as an apothecary, it would be very hard upon the practitioner himself, and his patients, to send him away. I consider that he and all such persons ought to be registered. Persons who have received a good medical education, and who have hitherto been allowed to practise, ought not to be excluded from the register. They ought to be included in any system of registration that was adopted. I would not object to make the registration compulsory; it should be so.

Mode of Registration.—It appears to me that it would be much better to register them according to their classes than according to Schedule (C); those who have degrees as physicians, diplomas as surgeons, and licences from Apothecaries' Hall; and those who belong to two classes might be put in both classes. A man may meet with an accident in some country place, and he may look at this list and send for a gentleman who may merely practise as an apothecary, or he may send for a physician, neither of whom could answer his purpose. The alphabetical list which he would have would enable him to refer to the names of all the qualified practitioners in the town, and he would then have an opportunity of referring to the other part of the schedule, and he would see at once the qualification which all the practitioners possessed; I do not think it would be invidious to arrange the profession in classes; a man need not be ashamed of the class he belongs to; it is a very good and honourable profession in all its parts. The members of the college ought all to be classed as surgeons; I have no objection to every one being put down as a surgeon. With regard to placing physicians before surgeons: the physicians are the older profession, and they are quite welcome to the precedence so far as I am concerned. I do not think it would create any unpleasant feeling if the members of the profession were arranged in classes, and it would be convenient to them all. I think it matters very little whether the register gives the name of the individual, and then states precisely what is his qualification, and where he obtained it, and what is the date of it or not; I do not attach much importance to the form of the register.

GOSSIP OF THE WEEK.

War-office, Dec. 24.—4th Light Dragoons: Assist.-Surg. John Reid, from the Staff, to be Assist.-Surg., vice Mure, promoted in the 72nd Foot. 11th Foot: Surg. John Strange Chapman, from the 63rd Foot, to be Surg., vice Dane, who exchanges. 63rd Foot: Surg. Richard Dane, M.D., from the 11th Foot, to be Surg., vice Chapman, who exchanges. 72nd Foot: Assist.-Surg. John Mure, M.D., from the 4th Light Dragoons, to be Surg., vice Gray, appointed to the 75th Foot. 75th Foot: Surg. Edward William Gray, M.D., from the 72nd Foot, to be Surg., vice Patrick Nicolson, M.D., who retires upon half-pay.—Hospital-Staff: Local Deputy Inspector-General of Hospitals Robert Moore Peile, M.D., to be Deputy Inspector-General of Hospitals; Deputy Inspector-General of Hospitals Robert Moore Peile, M.D., to be Local Inspector-General of Hospitals in Ireland; John Robertson, M.D., to be Assist.-Surg. to the Forces, vice Reid, appointed to the 4th Light Dragoons.

Apothecaries' Hall.—Gentlemen admitted members on Dec. 23:—Frederick George Harcourt, Ipswich; Peter Knight, Augustus Grant, Thayer-street; Osbert Fishlake Cundy, Halkin-street; Benjamin Button, Hopton, Suffolk; and Robert Stead Jones Stevens, Ely, Cambridge.

University College.—Mr. James Syme, Regius Professor of Clinical Surgery in the University of Edinburgh, has been appointed by the council to the chair of clinical surgery, vacant by the decease of the late Mr. Liston.

Appointments.—Philip Henry Williams, Esq., M.D., has been elected one of the physicians to the Worcester Dispensary, in the room of Dr. Hastings, resigned.—Dr. Arthur Farre, and Mr. Toynbee, have been appointed by the Government to inspect the workhouses and infirmaries in the parishes of the metropolis, to determine the amount of accommodation for pauper-patients in the event of the cholera breaking out in London.

In consequence of the extent to which chloroform is now used, the demand for it has become so great that the chemists have scarcely been able to supply it; and in Edinburgh, Liverpool, London, and other towns, many have passed the night in distilling it.

The official accounts from Russia describe the cholera as fast subsiding in all the provinces. At Moscow the cases averaged twenty-five a day, about twelve being fatal.

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QUARANTINE ALTERATIONS.—In consequence of the two cases of cholera which have recently occurred on board the French packets, the board of health here has ordered the following periods of quarantine to be observed:—

	Egypt & Syria.	Tripoli.	Constantinople, Blk. Sea, &c.
Merchant vessels, from	15 days	12 days	12 days
Men-of-war, from ..	12 ..	9 ..	12
Steamers, from ..	12 ..	9 ..	12
Goods that can be purified, from ..	15 ..	12 ..	15
Passengers in the Lazaretto, from ..	12 ..	9 ..	12

From the Dardanelles, Scala Nova, Salonica, Smyrna, Cyprus, Rhodes, Candia, and all islands and ports of the Ottoman Government, seven days' quarantine of observation, provided the voyage has occupied eight days; if otherwise, the number of days required to make up eight allowed for the voyage will be added to the seven required for observation. In a word, it is a quarantine of fifteen days, those occupied on the voyage included. Any vessel whatever coming from the Black Sea, or from Constantinople, or any place where cholera exists, cannot enter our port if, on the passage, any disease has appeared. They are required to lay to, until an official visit from the captain of the port and a medical officer has been paid.

LUNACY.—The second annual report of the Commissioners in Lunacy, signed by Lord Ashley, and presented to Parliament, has been printed. It seems that the commissioners have collected a mass of information on the subject of lunacy, which they have embodied in a further report, and recently presented it to the Lord Chancellor. The report so made, the commissioners state, carries down the state of lunacy and lunatic establishments almost to the present time. It appears there are 2853 lunatics in the metropolitan licensed houses. In six months, ending on the 4th of August last, Dr. Turner, as commissioner, saw 8270 patients; Dr. Hume, 2079; Dr. Prichard, 6723; Mr. Procter, 8267; Mr. Mylne, 3319; and Mr. Campbell, 9939 patients.

OBITUARY.—Died, on the 25th inst., F. H. Parker, Esq., of Portugal-street, Grosvenor-square, aged 48.

MORTALITY TABLE.

For the Week ending Saturday, Dec. 25, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1247	1046
SPECIFIED CAUSES...	1247	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	389	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	107	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	125	157
Diseases of the Lungs, and of the other Organs of Respiration	391	333
Diseases of the Heart and Blood-vessels.....	24	34
Diseases of the Stomach, Liver, and other organs of Digestion	62	74
Diseases of the Kidneys, &c.	11	9
Childbirth, Diseases of the Uterus, &c	14	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	5	7
Diseases of the Skin, Cellular Tissue, &c.	5	2
Old Age.....	59	65
Violence, Privation, Cold, and Intemperance.....	55	29

TO THE SUBSCRIBERS OF THE MEDICAL TIMES.

Gentlemen are respectfully informed that the following are the terms of subscription to the *Medical Times*:—

IN ADVANCE FOR THE STAMPED EDITION.

Per quarter ..	£ 0	7	7
Per half year..	0	15	0
Per year ..	1	5	0
Life subscriber	10	10	0

All post-office orders should be drawn in favour of James Angerstein Carfrae, and gentlemen whose subscriptions are expired, will much oblige the publisher by forwarding their renewals without delay. The large reduction, indeed, made in favour of annual and life subscribers is given with the view of *securing*, without trouble, the punctuality, promptitude, and certitude of subscribers' payments.

TO CORRESPONDENTS.

"Medicus, Dublin."—We regret the apathy displayed by the Irish Government, in not stepping forward to the relief of the widows and orphans of those medical practitioners who perished in the discharge of their benevolent duties. We have heard of no efforts made on this side the water to raise a sum in order that the helpless may be assisted. It would be a praiseworthy undertaking, and we have no doubt that there would be found many benevolent persons, not belonging to the profession, who would readily subscribe to a fund for the purpose mentioned.

"A Provincial Surgeon."— Mr. Liston was originally a pupil of Dr. Barclay, of Edinburgh. In 1833 he came to London, having been appointed one of the surgeons of University College Hospital, and Professor of Clinical Surgery in University College. In 1840 he was appointed a member of the council of the College of Surgeons, and one of the board of examiners in 1846. He was not celebrated as a writer.

"Sydenham."—Chloroform continues to be employed in surgical operations; in a few instances some unpleasant symptoms have arisen, not, however, to that extent as when ether was used. In midwifery practice it is beginning to be applied in London, but opinions are divided in reference to its utility. It seems upon the whole to be a valuable agent in obstetric practice, under certain circumstances.

"Chemicus."—Chloroform is but sparingly dissolved by water; with alcohol and ether, however, it readily combines, forming transparent solutions. It is not inflammable.

"A General Practitioner, Piccadilly."—We observed the St. George's Hospital puff in the *Globe*. Such modes of seeking practice are frequently adopted. A spirit of quackery prevails amongst the "pures" quite as much as amongst another class of the profession.

"Mr. E. Cousins."—The case is under consideration, and will probably be inserted next week.

"Adolescens."—Forceps are preferable to the key for the extraction of teeth. Dentists generally use the former.

"S. B., Bristol."—The paper on delirium tremens cannot be inserted without being authenticated. If the author is too bashful to suffer his name to appear in print, it shall be retained in confidence.

"Omicron."—The funds of the Westminster Hospital, we understand, are rather low, so that some wards are shut up. This is not very cheering for those pupils who have entered to the medical and surgical practice.

"A Poor-law Surgeon."—The letter has been received, but, from press of matter, must stand over till next week.

"Auditor."—The "Sketch on the Stethescope" is inadmissible. Because an instrument is not skilfully used, that is no reason why it should be of little value.

"C. G., a Pupil."—The work referred to may be relied on as containing practical information especially useful to the parties referred to.

"Mr. G. H. Fosbroke, Bideford, Stratford-on-Avon," will see that his communication has been received, and we hope again to hear from him on the same subject next week.

"Dr. Tyler, 30, Harcourt-street, Dublin," has our thanks for the communication. The copies shall be forwarded as requested.

"Mr. Thomas Baker, Droxford, near Bishop's Waltham, Hants."—The delay has been unavoidable; but we hope before long to gratify the wish of our correspondent.

"Veritas" writes us, in reference to the Hunterian School of medicine:—"May I beg your attention to the hard case of those students who have entered to the lectures, &c., at the Hunterian School of Medicine. I am sorry to say I am one of those unfortunates who have been misled by the heads of this establishment. Our wish is, that those institutions which ought to protect the interests of all students attending schools recognised by them should come forward and enforce that instruction which has been paid for, or oblige the lecturers to transfer the pupils to some other school, where instruction is regularly and properly given. What think you, Mr. Editor? A few weeks after the commencement of the session the College and Hall withdrew, or threatened to withdraw, their recognition of the lectures—not before. And now "the bailiffs" have seized upon the preparations, &c. The dissecting-room is closed, no lectures are given; and all this without apology or excuse, just as if we were a parcel of paupers waiting the relief of the heartless guardians and the supercilious commissioners. These grievances, involving, as they do, the present and future prospects of a great number of respectable medical students, will, I trust, be sufficient inducement for you, with your generally admitted power, to grant us your aid, and place us, if possible, in our just and legitimate position."

"A Subscriber, London."—German diplomas are now only to be obtained after examination. This has been principally effected through the efforts of the *Medical Times*.

"Mr. Wm. Smith, King-street, Belper."—The paper is in the hands of the publisher, and will shortly appear. The irregular supply we cannot account for, but we think it must be the fault of the bookseller. The papers ordered at the office are invariably posted in time for Friday afternoon's post. The other request shall be attended to.

"Anti-Humbug" writes us, in reference to a certain quack journal:—"The coroner's hopeful son, I perceive, is advertising himself into notice. The father is not satisfied with merely advertising the contents of his paper in one advertisement, but must make a specific one to to bring forth the operative talents of his son. Really the very learned coroner must for evermore say nought against the advertisements on carts, of his professional brethren, in the *Lancet*."

"Mr. Thos. Cocks, jun., Hatfield, Broadoak," sends us the following case, in which chloroform was administered to a very young subject:—"A few days ago, having occasion to operate upon a child one year and eight months old, for harelip, I thought it a most favourable opportunity for the use of chloroform, notwithstanding the age of the patient, especially as she is of a very irritable temper. Accordingly the chloroform was administered, sprinkled upon a napkin after the method recommended by Dr. Simpson, and proved perfectly successful—the child enjoying the fragrance of the fluid, and recovering from the torpor in a few minutes without any unpleasant symptom. This is, I believe, the youngest subject who has, as yet, been placed under the influence of any anæsthetic agent."

"Bristoliensis," "H. C.," and many other correspondents have directed our attention to the puffing of the Wakley journal, and they all express their indignation that such A THING should pretend to put down quacks and quack advertisements.

"A Medical Student."—The bonesetter means quackery. We can give no other interpretation of his jargon.

"F. M."—Mr. Samuel Lane is the principal surgeon of the Lock Hospital. Mr. Phillips is surgeon to the Westminster Hospital.

"M. D." enters into personal details which, while injurious to the young men, have no professional interest to justify their publication. We would sooner see the young persons reformed (and, indeed, informed) than injured. The other points of the communication have been anticipated by other correspondents, as well as by ourselves. "Triumphant," indeed, "will be quackery if such are to be its authorized opponents."

"An Eyewitness."—If the bones were not carious, the operation was, of course, most unjustifiable; but the lust of notoriety listens little to conscience. We have elsewhere published the official "bulletin."

"A Medical Student."—We are obliged by the paper; but all the facts of Liston's career are well known, and would, to our readers at least, be both stale and unprofitable.

The Middlesex Hospital.—We have received some polemical letters from this institution, but they are of no interest to the public. With a general resignation it might have been expected that all the "dirty linen" had been long ago washed.

"W. B. H."—The case is certainly a bad one, but the coroner seems incorrigible, and we are tired of detailing similar accusations. We take it to be that person's mode of repaying his obligations. We see no use in publicity in our correspondent's plight.

"B. B."—We have not been able to make space for the communication.

Will "A Constant Reader, Uxbridge," favour us with his name?

"A 'Regular' Practitioner" "respectfully requests that the *alleged* carious astragalus and *os calcis*, the subjects of a recent mutilation very widely advertised through the *popular* press, be presented to some society or public museum for professional examination." The absurdity of the operation certainly needs that every circumstance should be publicly authenticated which can in any shape tend to mitigate its repulsiveness.

"Mr. S. M. Curl."—The paper on Cholera must for the present stand over.

"An Indignant Pupil" will do well to read the able letter of "Humanitas," in this week's number.

"FREE HOSPITAL QUACKERIES."—We have been so inundated with letters on this exciting subject, that we must next week endeavour to make room for a brief selection from our correspondents.

Letters and communications have also been received from Bristoliensis; H. C.; Mr. Thos. Cocks, jun., Hatfield Broadoak; Anti-Humbug; Mr. Wm. Smith, King-street, Belper; A Subscriber, London; Veritas; Mr. Thomas Baker, Droxford, near Bishop's Waltham; Dr. Tyler, 30, Harcourt-street, Dublin; Mr. G. H. Fosbroke, Bideford, Stratford-on-Avon; C. G., a Pupil; Auditor; A Poor-law Surgeon; Omicron; S. B., Bristol; Adolescens; Mr. E. Cousins; A General Practitioner, Piccadilly; Chemicus; Sydenham; A Provincial Surgeon; Medicus, Dublin; Mr. Evans, Cumberland Infirmary; A Medical Student; F. M.; M. D.; An Eyewitness; The Middlesex Hospital; W. B. H.; B. B.; A Constant Reader, Uxbridge; A Regular Practitioner; Mr. S. M. Curl; An Indignant Pupil; Free Hospital Quackeries, &c.

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No. 432. **SUMMARY.** Jan. 8.

ORIGINAL LECTURES—
Lectures on General Pathology, delivered to the Faculty of Medicine by Professor ANDRAL, reported by D. M'CARTHY, M.D. Paris 229
Clinical Observations on some of the more frequent Diseases of Children, by W. H. WILLSHIRE, M.D. 230
On the Physical Phenomena of Living Bodies, by Professor MATTEUCCI, of Pisa 231
ORIGINAL CONTRIBUTIONS—
Clinical Remarks on Cases occurring in Obstetric Practice, by CHARLES WALLER, M.D..... 233
Royal Berkshire Hospital—Surgical Reports and Observations, by F. A. BULLEY, Esq. 234
Chloroform in Surgical Operations, communicated by J. W. GARLIKE, Esq..... 236
Progress of German Medical Science, by Dr. BUSHNAN 236
PROGRESS OF MEDICAL SCIENCE—
Academy of Sciences; Meeting of Dec. 27..... 237
Academy of Medicine; Meeting of Dec. 29 238
MISCELLANEA 238
LEADERS—
Discoveries on the Heart, by WARDROP..... 240
The Poor-law Convention 240
The College of Physicians and their Dignities 240
The "Quackly" Operations 241
Medical Corporations and Professional Education—Mr. Green at the House of Commons 241
Professional Squabbles at the Greenock Infirmary. 242
Insanity and Crime—Case of the Boy Allnutt 243
Evidence taken before the Select Committee on Medical Legislation..... 243
Professional Titles..... 243
Opportunities for Observing the Progress of Students 243
Grinders 243
Unsound Knowledge, by whom detected 244
Examination of Members..... 244
Examination of Fellows 244
A Single Faculty..... 244
The Registration Bill 44
Opinion on Registration, &c. &c. 244
Committee of Poor-law Medical Officers..... 245
An Irish Inquest 245
GOSSIP OF THE WEEK..... 247
The Fatal Blunder..... 247
MORTALITY TABLE 248
TO CORRESPONDENTS 248

ORIGINAL LECTURES.

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 PART. CHAPTER II.—(*continued.*)

SEMEIOLOGY OF DISEASES OF THE CIRCULATION.—AUSCULTATION OF THE HEART.

When the heart of a healthy subject is auscultated, two sounds are heard, separated by an interval of silence. The first sound is more dull and more prolonged than the second; its greatest intensity is found to correspond to the space between the fourth and the fifth rib, a little to the left of the nipple, and somewhat lower. At the same time, the apex of the heart strikes the thoracic walls, and the arterial pulse takes place. Perfect synchronism between the pulsation of the arteries and the first sound of the heart exists only in the arteries placed in the immediate vicinity of that viscus. The vessels most distant from the centre of circulation are distended by the blood a little later, but at an appreciable interval. The second sound of the heart, clearer and shorter than the first, is most distinctly heard near the insertion of the third rib to the sternum. The interval which separates the first from the second sound is called the short silence, in opposition with the longer silence, which intervenes between the second sound and the first. The first bruit corresponds with the contraction, the second with the dilatation, of the ventricles. We are aware that Dr. Corrigan and Dr. Beau hold a contrary opinion, but the numerous researches of various experimentalists, and our own observation, induce us to adopt the general belief on this subject. The following is an analysis of the movements of the heart: — The auricles first contract without causing any sound appreciable to the ear; this action corresponds to the long silence; the ventricles then contract and throw the blood into the arteries; at the same moment the tricuspid and mitral valves become tense, and the first sound is heard. A short interval of silence is observed, and finally the ventricles are dilated, and the arterial valves tense, when the second bruit is heard.

Various theories have been broached for the purpose of accounting for the production of these sounds; strictly speaking, for the diagnosis of disease we require no theory, and it is sufficient to bear in mind the succession of phenomena above enumerated; however, these theories are interesting in a physiological point of view. We are of opinion that the sounds are not due to one cause only, but to the combination of several: thus, it is not only to the impulse of the heart, to muscular contraction, to the play of the valves alone, or to friction of the blood against the visceral walls exclusively, that these sounds should be ascribed; but we should consider that all these causes have a share, an unequal one it is true, but still all have a share in their production. Thus we would look upon the tension of the auriculo-ventricular valves as the chief cause of the first sound, assisted secondarily by friction of the blood against the aortic walls, and against the basis of the column of blood forced into the arteries; as still more secondary causes of the first sound, we should also mention the muscular contraction of the ventricles, and the impulse of the apex of the heart against the thoracic parietes. As the principal causes of the second sound, we would name the sudden tension of the arterial valves, and the return of the blood upon their superior surface; as secondary causes of its production, the sudden opening of the auriculo-ventricular valves, and the passage of the blood into the ventricular cavities.

In the history of the auscultation of the sounds of the heart, we have to consider their seat, extent, intensity, tone (*timbre*), and also the substitution of morbid to natural sounds.

With regard to their seat, we may say that the various causes which occasion a displacement of the heart itself, also change the seat of the sounds; tumours will, therefore, frequently have this effect—a fact so simple as to require no further demonstration.

The extent in which the sounds of the heart are heard during health may be increased, as in endocarditis, dilatation of the viscus, fever, emotions, and, generally, nervous affections, by which the violence of its contractions is augmented. If the heart is supposed to remain healthy, still the extent in which the sounds are heard may be increased by all the causes of condensation of the lung, acute and chronic pneumonia, consumption, &c., which render the respiratory organs better conductors of sound. On the contrary, that extent will be diminished by atrophy of the heart, concentric hypertrophy of its walls, pulmonary emphysema, &c.

The intensity of the sounds is augmented in eccentric hypertrophy, in neurosis of the heart, rarely in endocarditis; in feverishness the intensity of the sounds and the impulse are not augmented as much as one would, *d priori*, suppose. The sounds of the heart can sometimes be heard without immediate application of the ear to the chest, and at very variable distances, from two or three inches, for instance, to two or three feet, as we have ourselves observed. The sound thus heard coincides with ventricular systole; and we believe the cause of the phenomenon to reside in a great increase of energy of the impulse of the heart against the thoracic walls. Laennec explained it by the presence of gas in the pericardium—a gratuitous hypothesis which we do not feel disposed to adopt. In general debility, in softening or atrophy of the heart, in syncope, we find a diminution of its pulsations. We may also add, that in pericarditis, increased dulness coincides with diminished intensity of pulsation, when effusion has taken place; whereas both the dulness on percussion and the intensity of pulsation are increased in hypertrophy of the organ.

The rhythm or regular succession of the sounds of the heart may be modified by disease. Thus, the sounds may be intermittent, and the return of the irregularity very variable, and depend upon agitation, motion, or even digestion. Before the age of sixty we very seldom meet with those intermittencies in the pulsations of the heart without some organic disorder of that viscus. We meet them, for instance, in valvular diseases, and particularly in those of the auriculo-ventricular orifices, whether permanent or transitory in their nature; they also exist when fibrinous concretions form within the heart, in functional disturbance, and whenever any tendency to augmentation or diminution of the action of the heart is produced. We will not, therefore, be surprised to find them before syncope, or after the exhibition of digitalis. Recollect, however, as a general remark for the accuracy of which we pledge ourselves, that simple nervous affections very seldom cause intermittent pulsations. The duration of the sounds or of the intervening silences may be increased or shortened. The prolongation of the first bruit is generally connected with hypertrophy of the ventricular walls, particularly when this alteration coincides with arterial stricture. As to the second bruit, it is more common to find it shortened than lengthened by disease.

The sounds of the heart may be modified in number: thus, of the two, one only may remain. It is then the first which, being prolonged, covers and absorbs the second, as in concentric ventricular hypertrophy. The second sound may also, but more rarely, be so much weakened as not to be perceptible. Instead of two sounds three may be heard—one dull and two clear sounds—resembling those produced by a hammer falling heavily once, and reverberating twice again afterwards (Bouilland). It is in such cases the second sound which is repeated, and it is observed in strictures of the auriculo-ventricular orifices. The passage of the blood into the ventricles being slackened, a delay takes place in the fall of the blood backwards upon the arterial valves, and the treble sound alluded to is produced. The repetition of the first—the dull sound of the heart—is less frequent, but is occasionally met with, and forms what Professor Bouilland calls "bruit du rappel," from its resemblance to the drummer's call to arms. (a) Its organic cause has not hitherto been rigorously accounted for. In one case of considerable auricular hypertrophy, M. Charcolay states that he heard immediately before the first bruit a

(a) Our readers may not be so familiar with this sound as Parisians, whom the frequent riots of the French metropolis have accustomed to the beat of the drum. The soldiers, in imitative harmony, compare the "bruit du rappel" to the sounds produced by the three words, "prends ton sac."

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