THE

LONDON MEDICAL AND SURGICAL JOURNAL;

EXHIBITING

A VIEW OF THE IMPROVEMENTS AND DISCOVERIES

IN THE

VARIOUS BRANCHES OF MEDICAL SCIENCE.

EDITED BY

MICHAEL RYAN, M.D.

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS IN LONDON, &c. &c.

AND

AN ASSOCIATION OF PHYSICIANS AND SURGEONS.

Quærere verum.—HORACE.

VOL. III.

LONDON:

PUBLISHED BY RENSHAW AND RUSH, 356, STRAND,

(NEAR THE KING'S COLLEGE.)

1833.

LONDON
BRADBURY AND EVANS, WHITEFRIARS.

THE

London Medical and Surgical Journal.

No. 53. SATURDAY, FEBRUARY 2, 1833. Vol III.

LECTURES
ON THE
PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,
BY PROFESSOR SAMUEL COOPER.
Delivered at the University of London, Session 1832—1833.

LECTURE XXI., DELIVERED NOV. 21, 1832.

Gentlemen,—On Monday evening I was describing some of the characters of carbuncular inflammation; I mentioned, that, soon after the formation of the tumour, one or more livid vesicles make their appearance on its surface, and that, when this had occurred, you might be certain, that sloughing of the cellular membrane underneath the skin had taken place. When such vesicles burst, they are followed by one or two inadequate openings, that is, openings quite insufficient for the discharge of the contents of the tumour. If you now delay making a proper incision, several small ulcerated apertures are gradually produced, so as to give the surface of the carbuncle a perforated, or sieve-like appearance. From these a thin, greenish, sometimes bloody and sanious matter, is discharged, but the mortified cellular membrane remains behind, the openings not being free enough for its discharge. The matter flowing from a carbuncle is frequently whitish, resembling a mixture of flour-and-water, and Sir Astley Cooper considers this as one of the characteristics of the disease. If the process, adopted by nature, answer for the discharge of the sloughs, it is with slowness and difficulty, for it is only by the tedious effects of ulceration that it can be effected, by which the skin is destroyed, and a deep ulcer left, at the bottom of which you will occasionally see the denuded fasciæ, tendons, and muscles. Such is sometimes the depth of the ulcer: nay, instances are recorded, and one of them is mentioned by Mr. Liston, in his *Elements of Surgery*, in which the cervical vertebræ were exposed at the bottom of a formidable sore left after the detachment of the sloughs.

The undischarged matter of a carbuncle lies in the cells of the sloughy cellular membrane, where it was originally formed, and is not diffused in those of the surrounding cellular tissue, as in bad cases of phlegmonous erysipelas; indeed, a carbuncle is truly a circumscribed disease.

Gentlemen, I may next observe, that carbuncles are chiefly seen in persons, whose constitutions have been broken or permanently impaired by excesses and dissipation: you will rarely see them except in elderly persons, or persons above the middle age. In this respect, carbuncle differs from a boil, which occurs principally in young persons. It is alleged, that carbuncles may arise from stimulation of the skin, in various manners; but then we must suppose the previous existence of a peculiar state of the system creating a kind of predisposition, without which the irritated part would not have been attacked with carbuncular inflammation. Carbuncles are attended with severe constitutional disorder; rigors, intense headache, considerable gastric disturbance, clammy perspirations, palpitations, faintings; a weak, faltering, pulse; extreme prostration of strength; and, after a certain time, with symptoms very much like those of typhus fever, with a tendency to disturbance of the intellectual functions, coma, and sometimes actual delirium. Carbuncles are rarely seen on the limbs; their usual seat is the back of the trunk. I have seen two or three cases, where carbuncles formed on the head; perhaps their most frequent situation is between the scapulæ, or near those bones; they are common too over the glutæi muscles and the nape of the neck. John Hunter mentions having seen carbuncles on the limbs; but this must be looked upon as uncommon.

Carbuncles, gentlemen, as you all know, are amongst the symptoms of plague; but those which form in the plague are not like the common kind observed in this country. The carbuncle of plague destroys the skin more quickly and completely; it forms a large black patch, and not small apertures; and it attacks

every part promiscuously, even the eyelids and scrotum, and is not confined chiefly to the back of the trunk.

Gentlemen, the *prognosis* will be influenced by the size and situation of the tumour; the age, strength, and constitution of the individual; the state of his pulse, and of his intellectual functions. If, together with a carbuncle of immense size, you observe great prostration of strength; a small, rapid, and irregular pulse; frequent vomiting, coma, or delirium, you will know, that the danger is considerable—the chances of recovery very poor. Patients frequently recover from large carbuncles situated on the back, though small ones on the head or neck may prove fatal. I would not join in the statement, that all carbuncles on the head are fatal, because my experience tells me the contrary. About a year and a half ago, I attended a gentleman at Green's hotel, in Lincoln's-Inn-Fields, who was visited also by Mr. Callaway, and Mr. Davis of Chancery-lane. He had a large carbuncle on the occiput, yet, by means of early and free incisions, and the use of proper medicines, he recovered. I think Sir Astley Cooper states, in his lectures, that he has never seen a carbuncle on the head terminate favourably; but, in the example which I have mentioned, a cure was accomplished. At the same time, gentlemen, you ought to be apprised, that carbuncles, situated on the head, are very dangerous, inasmuch as they generally bring on more or less inflammation of the membranes of the brain, and especially effusion between the tunica arachnoides and the pia mater. Hence, you may readily comprehend why they are, when so placed, more to be dreaded, than when situated on the posterior part of the trunk. Gentlemen, we here see an effect, which we also notice in severe burns of the head; and when I come to the subject of injuries from fire, I will show you a skull, taken from a patient who died, not from the burn of the scalp, but from the extension of the inflammation to the dura mater.

With regard to the treatment, I may observe, that, in consequence of the kind of constitution, and the early supervention of weakness, you will not be able to carry antiphlogistic measures to any extent. However, if the pulse should be full in the beginning of the disease, moderate venesection, leeches, and purgatives would be indicated; but, as I have remarked, you should not venture far with depletion, for if you were to do so, you would lose the patient from the sudden and extreme weakness that would follow. In many cases, you will observe considerable oppression of the digestive organs in the early stage of the disease, and then the administration of an emetic is a plan which may be useful. On account of the sudden prostration of strength, which always comes on, you will not be able to pursue antiphlogistic treatment far; here the lancet, leeches, and purgatives, cannot be so freely employed as in the generality of other inflammations, and, if you try depletion at first, you are soon obliged to have recourse to the opposite treatment, and give tonics and stimulants—*bark*, the *sulphate of quinine*, *diluted sulphuric acid*, and even *ammonia* and *brandy*. The patient must also be supported with such light, nutritious food as agrees best with his stomach. Throughout the whole course of carbuncular inflammation, which is always severely painful, *opium* proves a valuable medicine, and the patient ought to be kept moderately under its influence; but, still more important, than internal remedies, are free and early incisions. I may say, gentlemen, that they are the grand means of relief; they should be made, not only through the integuments, but through the hard mass of mortified cellular membrane, which, though containing some cavities filled with matter, has considerable firmness, and offers great resistance to the knife. It is also usually necessary, in order that the opening may be adequate to the discharge of all the sloughs, to make a crucial incision, that is, two cuts which cross one another. The sloughs having been discharged, the part is to be poulticed and fomented, until it becomes clean, and begins to granulate, when it is to be treated like a common ulcer. Here, as in the treatment of the sore, left after the discharge of the contents of a boil, I believe stimulating applications agree better, than common mild dressings. Hence, as soon as the sore is clean, or even sooner, it is usual to dress it with the *red ointment*, composed of the unguentum resinæ flavæ, with every ounce of which one drachm of the red precipitate of mercury is mixed; or you may, if you please, apply any other stimulating application, like turpentine, or the peruvian balsam, blended with the same ointment. Sir Astley Cooper applies to the sore a poultice made of port wine and linseed, and, until all the sloughs have come out, it is an excellent application. In France, the actual cautery is sometimes used, and thus a larger opening is formed than with a cutting instrument; but it cannot always be made in this manner with all the quickness and expedition, which circumstances may demand; for sometimes the patient's safety appears to me to depend on the opening being immediately formed. I therefore prefer making at once a crucial incision, or, at all events, a free opening with a knife. In the United States of America, some surgeons of eminence apply very powerful caustics to the tumour, as soon as those small apertures are formed, which give the perforated sieve-like appearance to its surface; they conceive, that these applications have some effect in stopping the peculiar morbid action accompanying the disease, besides their usefulness in producing a good outlet for the matter and sloughs. In this metropolis, surgeons prefer the use of a cutting instrument, which will always make an opening sufficient for every useful purpose, without any delay, with the greatest precision, and the least pain.

Gentlemen, in the course of these lectures, I have frequently had occasion to allude to sympathetic inflammations, that is, to inflammations which take place in internal organs, or in other parts, remote from the original affection, as fatal complications of mechanical injuries, surgical operations, and various local diseases. Such complication sometimes presents itself with carbuncular inflammation, the primary disease being followed by inflammation and abscesses in a distant part. Thus, two years ago, I attended an elderly person in my neighbourhood, who died, not in consequence of his carbuncle, but from abscesses, which took place in different parts of his body. I remember there was one in each ankle, and another in one of his knees; the capsular ligaments of those joints were full of pus.

As another variety of inflammation, gentlemen, I may next notice the *malignant pustule*, a disease, however, which is less interesting to us than to foreign practitioners, for it is very rarely seen in this country. Instead of arising from internal causes, as a carbuncle does, the malignant pustule is produced by external circumstances; it is believed, indeed, to arise from a specific contagion, generated in cattle, which labour under, or die of certain epidemic gangrenous diseases. The disorder has been noticed chiefly in some of the southern parts of Europe, where the individuals, most exposed to it, are found to be slaughtermen, tanners, tallow-chandlers, shepherds, farriers, and others, whose business consists in carding wool. In the part to which the contagious matter is applied, a pricking sensation soon commences, followed by the appearance of a small red point resembling a flea-bite, and afterwards rising up in the form of a dark coloured vesicle, which is converted into a slough, the circumference of which is œdematous. The disease now enlarges in all directions with extraordinary rapidity, attended by severe pain in the epigastrium, violent shiverings, a small irregular pulse, and such derangement of the whole system, as frequently ends in death. When several malignant pustules occur in different situations, or when there is only one, but situated on the face, head, or neck, the case is always dangerous.

The disease appears to be capable of transmission, not only from the skin and flesh of the dead animal, but may be contracted by touching the hides of cattle labouring under the epidemic, to which I have alluded, or the discharge from the gangrenous ulcerated parts; nay, if we can trust to reports, the disease may be propagated through the medium of the atmosphere, and is, in every point of view, infectious. It has been known to proceed from eating the flesh of a bullock that was affected with the epidemic gangrene at the time when it was slaughtered. In the writings of Larrey and Delpech, several cases are related, which arose from eating the flesh of cattle thus diseased. Now, in this country, you will sometimes meet with a case, which, though it may not be precisely like malignant pustule, is analogous to it. I allude to what is seen on the hands of farriers, in consequence of the application of matter of glandered horses to abrasions, sores, or cuts on their hands. Thus, indeed, the person may catch glanders, and not malignant pustule. Some time ago, I attended a cook in a gentleman's family, who had a most severe gangrenous affection of her hand, brought on by an accidental cut of one of the fingers, as she was flaying a hare; but, whether this was from the introduction of a deleterious matter into the cut, or to the effect of the wound on a bad constitution, or other causes, I know not, and therefore cannot say, whether there was here any analogy to what is observed in the malignant pustule.

Gentlemen, with regard to the *treatment of the malignant pustule*, the best foreign surgeons recommend cutting the part entirely away in the early stage of the disease: thus, when it is of limited extent, or soon after the peculiar appearance, like that of a flea-bite, is observed, they recommend excision as the surest means of cure; they afterwards apply to the surface of the wound, the muriate of antimony, a strong solution of the nitrate of silver, caustic potassa, or even the actual cautery. As internal remedies, tonics and stimulants are preferred; the antiphlogistic debilitating plan being pronounced to be quite unsuccessful. Dr. Duncan, of Edinburgh, who gave us the first careful description of *diffuse inflammation of the cellular tissue*, expresses a strong suspicion, that the malignant pustule must be the same disease; but, gentlemen, if what I have stated be correct, you will immediately perceive differences between them, especially in the flea-bite appearance, noticed in the commencement of malignant pustule, the origin of the latter from contagion, and the circumstance of the antiphlogistic treatment being invariably hurtful to it, whereas bleeding and leeches are, on the contrary, particularly useful in diffuse inflammation of the cellular membrane. I cannot, therefore, join in the belief, that these two diseases are identical. The local appearances are different too in other respects, for, in malignant pustule, there is an extensive slough soon produced in the skin, while, in diffuse inflammation of the cellular tissue, there is generally no affection of the skin, except a slight redness, which takes place also *secondarily*, a circumstance on which Dr. Duncan himself lays considerable stress.

Gentlemen, there is another kind of inflammation to which I may advert, I mean that which John Hunter calls *œdematous inflammation*; it is an inflammation occurring in anasarcous or œdematous parts: we do not often recognize any œdematous inflammation, which is materially different from œdematous erysipelas; but Mr. Hunter says, that, in what he terms œdematous inflammation, the colour of the surface is a bright red, whereas the colour of œdematous erysipelas is dusky, or even livid. Having lately drawn your atten-

tion so much to affections of the cellular tissue, I may next be allowed to speak of *œdema*, another disorder occurring in the same texture. Indeed, you will be constantly hearing me refer to this affection in my account of other diseases; another reason for not leaving it any longer unnoticed. *Œdema* is a swelling, produced by the effusion of serum in the cellular membrane; but when such effusion is more extensive, and occurs in a dropsical habit, then surgeons call the complaint, not *œdema*, but *anasarca*. In œdema and anasarca, the parts affected are generally below their natural temperature, pale, and with little or no elasticity; for, when they are pressed upon with the finger, a dent or impression is left in them, and they are said to *pit*. This symptom is still more strongly marked in anasarca, than in œdema. The latter affection is frequently a sign of the existence of a deep-seated abscess, the cellular membrane under the skin becoming œdematous over the situation of the pus. In doubtful cases, then, an œdematous fulness of the cellular membrane will sometimes corroborate the suspicion of the presence of matter in a deep situation, and, joined with other symptoms, will enable you to form a correct diagnosis. Thus, when an abscess is formed in the chest, you may generally notice a degree of œdema of the integuments of that side of the thorax in which the matter is lodged.

Œdema, gentlemen, often depends upon constitutional disease, but, in other instances, it is completely a local affection, proceeding from causes, which only extend their influence to the parts in which the effusion has taken place. We see this fact exemplified in severe sprains of the ankle, wrist, or elbow, when, during the inflammation of those joints, the instep or hand will often present an œdematous appearance. Pressure on veins is another exciting cause of œdema, as is fully illustrated in the latter periods of pregnancy, when the iliac veins are compressed by the gravid uterus, and œdema of the lower extremities is the result. We see the same fact also demonstrated in cases of fractures, where œdema is produced in consequence of the return of blood being more or less interrupted by the pressure of the splints and bandages.

General weakness of the constitution is another cause of œdema, and you will commonly see it taking place in the feet, when a person, who has been long confined to bed by some severe indisposition, first begins to resume the erect position.

Gentlemen, nothing is plainer, than that the *treatment of œdema* must be regulated by the particular nature of the exciting cause: if the disease depend upon constitutional illness, or general debility, then, of course, you cannot expect to cure it until the patient's health is improved; on the same principle, when it depends on the pressure of a tumour upon the veins or absorbents, as is often exemplified in aneurism, how can you expect to cure the œdema so long as the aneurismal swelling remains undiminished? However, I may remark, gentlemen, that œdema of the lower extremities can often be palliated by keeping the patient in the horizontal position, and you will generally find that individuals, with œdema of the lower extremities, are always worse in the afternoon, when they have been for some time on their legs, than in the earlier parts of the day. When the disease depends on loss of tone in the part itself, and not on the state of the constitution, local treatment will be very effectual; you may then employ stimulating, or iodine embrocations, or you may direct the part to be pumped upon every day. Sometimes aromatic fomentations, as those made with the decoction of camomile flowers and a proportion of camphorated spirit, and sometimes equable pressure, will answer best. Gentlemen, such are the remedies, when the disease is not kept up by constitutional causes, or some mechanical impediment to the return of the blood through the veins.

Gentlemen, my next duty is to explain to you the nature and treatment of the *chemical* and *mechanical injuries* of the body; a subject of the highest interest to all who mean to practise surgery, and necessarily a comprehensive one, including *burns* and *scalds; certain affections resulting from exposure of the body, or parts of it, to a very low temperature; wounds of every kind*, and *all their consequences; fractures; dislocations; sprains;* and *contusions*.

We will commence, if you please, with *scalds* and *burns*, and the *effects of cold*, which, as contrasted with wounds, fractures, dislocations, and other injuries of a mechanical nature, are frequently termed *chemical injuries*. A *scald* signifies, as you well know, an injury arising from the application of hot, or boiling fluid to the skin. The effect of the momentary application of very hot water to the surface of the body is to produce pain and redness, followed by more or less swelling of the part. The redness is so quickly excited, that the fact is often quoted as a powerful argument against the doctrine of the redness in inflammation depending on the generation of new vessels, because the redness of a scald takes place so quickly, that there is no time for the formation of new vessels in the part. Another common effect of the application of hot or boiling water, when that application is of longer duration, is the production of vesication; that is to say, the cuticle is raised from the cutis at certain places, of greater or less extent, in the form of vesicles, filled with a transparent serous fluid. In fact, the same changes here take place, as those which follow the application of blistering plaster; the cuticle is detached by the interposition of a limpid fluid between it and the cutis. Vesication is so expeditiously excited by the application of hot water to the surface of the body, that this mode of forming a blister has been proposed as an advisable expedient in urgent cases not admitting of delay; but, I believe,

few patients have hitherto been prevailed upon to submit to this unceremonious method of blistering them. If done with the steam, instead of the water, it would be an instance of surgical business being expedited by that powerful agent, as well as matters of other kinds.

Now, gentlemen, as water boils at 212° of Fahrenheit's thermometer, it is manifest, that the degree of heat, and, consequently, as far as this is concerned, the severity of the injury itself, attending a common scald, must be kept within a certain limitation: the mischief, therefore, does not generally penetrate deeply; but even in this respect, something will depend on the length of time, during which the hot or boiling fluid is applied, and on the kind of fluid itself; because oil, greasy soups, and some other liquids, with which these accidents are frequently occasioned in kitchens, laboratories, and manufactories, are susceptible of a higher temperature, than that of boiling water.

Gentlemen, I have stated that the duration of the application of the hot fluid to the surface of the body makes a very considerable difference in the degree of injury: thus, when a person is scalded through his clothes, the injury is generally severe, because the clothes cannot be removed soon enough, and the injury from them, saturated as they are with hot fluid, is still going on.

Gentlemen, you will find that the worst scalds are those which happen to workmen who unfortunately fall into coppers of boiling wort, and to firemen, on whose thick clothes boiling water often falls from a building in flames. Such individuals generally receive much additional injury from the circumstance of their not being able to extricate themselves immediately from their clothes, which are drenched with hot fluid. I have attended several children who have fallen into tubs of hot water in nurseries, and know of many, who lost their lives from cups of hot coffee or tea being emptied on their bosoms. Some time elapses before their dress can be taken off, and thus the injury is seriously aggravated. In most of these examples, the injury, though necessarily severe on account of its extent, is rendered much worse by the protracted contact of the hot fluid with the surface of the body. Hence, you not only find an extensive scald, but one which, if the patient live long enough, will often proceed to ulceration, or even sloughing. Generally speaking, however, the effects of a scald are considerably moderated by the circumstance of the temperature of fluids being restricted to a certain degree, above which they are converted into vapour. But, although scalds, in this point of view, are assuredly less perilous than burns, since the injury is more confined to the surface, yet they are more dangerous on another account, namely, their frequently great extent, arising from the quantity of hot fluid applied, and the rapidity with which it diffuses itself, and runs over the integuments.

Gentlemen, one example of scald is of a particular kind, inasmuch as it does not arise from the application of a hot fluid to the skin, but to internal parts, and the accident involves a question, respecting the treatment, not claiming consideration in any ordinary scalds. It is not uncommon for persons of humble condition to let their children drink out of the spouts of kettles and tea-pots. Now, this has often led to fatal consequences; for when the children are left by themselves, they will sometimes attempt to drink out of the same vessels, in which there may now be, not cold water, but some boiling or very hot fluid. It was Dr. Marshal Hall who first called the attention of surgeons to these not unfrequent accidents, by a paper on the subject, published in the twelfth volume of the *Medico-Chirurgical Transactions of London*. The effects of the accident are not always such as we might, *à priori*, have expected, the symptoms of inflammation of the œsophagus and stomach, but rather those of inflammation of the glottis and larynx—those noticed in acute *laryngitis*, or *croup*—and it is even stated, that the case presents another instance, in which tracheotomy may become necessary to save the patient from an impending death. Dr. Marshal Hall was led to believe, that the boiling fluid did not actually reach the stomach, or even the œsophagus, but that its descent into those parts was arrested by a violent and sudden spasmodic action of the muscles of the pharynx. By its passing to the fauces, he suspected that it only scalded the glottis and epiglottis, which became more and more swollen, until the rima glottidis was so completely obstructed as to prevent respiration.

Gentlemen, this view of the subject is partly correct; that is to say, the larynx inflames from the injury it receives; but, it is proved by a case recorded by Mr. Gillman, of Highgate, that the hot fluid sometimes passes much further, than Dr. Hall imagined, the whole interior of the mouth, fauces, pharynx, and œsophagus, nearly down to the cardiac orifice of the stomach, presenting the usual appearances of a scald. This fact was proved by dissection. At the same time, the mucous membrane of the trachea was highly inflamed, and a layer of coagulating lymph deposited upon and adherent to it. In another example, recorded by Mr. Stanley, the mucous membrane of the pharynx and upper part of the larynx, above the rima glottidis, was slightly reddened, but that opening itself was pervious; so that it seems questionable whether tracheotomy is advisable: it would have proved useless in the case now alluded to. However, I freely admit, that what has been here explained does not altogether settle the question, because, where inflammation or disease exists in the larynx, the thickening of the parts, or the deposition of lymph, may not be such as to render the rima glottidis impervious, but may excite a spasm of the muscles of the larynx, which will bring on suffocation.

A *burn* denotes the consequences of the application of great degrees of heat to the

body in every other manner, than through the medium of water, or other fluids, which do not admit of a temperature much above 212°. Thus, a person is often severely burnt by the direct application of fire itself to the uncovered parts of his body; as we find exemplified in attempts to escape out of buildings, in which the flames already occupy a considerable part of the interior. Under such circumstances, parts are frequently scorched with great severity. Then, gentlemen, I need scarcely tell you, that the light combustible materials, used in female dress, expose the fair sex to bad and fatal burns; for, when their clothes take fire, the flames ascend, and the face, head, neck, and breast, are often dreadfully injured. On the other hand, various employments, exclusively followed by men, render them, also, the frequent subjects of the worst description of burns. This observation applies to firemen, labourers employed in breweries, gunpowder-mills, distilleries, laboratories, and mines. I have seen many instances where firemen were not only dreadfully scalded by the descent of boiling water from heated bricks, but severely and fatally injured either by the fall of melted lead upon them from the gutters and pipes, or from their falling amongst masses of ignited materials, or being crushed by the fall of the walls and roofs of buildings in a state of conflagration. I remember, when Covent-garden theatre was burnt down, about thirty men were brought into St. Bartholomew's Hospital, many of whom had not been merely scalded, or burnt most severely, but injured in other manners by the fall of a part of the theatre, in which they were stationed: in fact, they were in one of the avenues when the whole of the building above them fell in, so that they were in a moment buried in a vast mass of ponderous and ignited materials; so that, in addition to the extensive and deep injuries they received from the flames, they met with lacerated and contused wounds, and compound and comminuted fractures, "the least, a death to nature."

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE VIII.

Turpentine in Fever, Hæmorrhages, and other Diseases — Rheumatic Arthritis — Disease of the Heart—Hysteria.

GENTLEMEN,—I shall proceed with detached observations on cases of interest, as I have done in my two last lectures, because I look upon it as a mode of communicating information, from which much advantage may be derived. You remember I dwelt on the utility of spirits of turpentine, not only in the tympanitis of fever, but also in the delirium which attends the low stage of that disease. I stated, that you will meet cases of fever, where depletion and blistering have been carried to their full extent, and yet your patient's head remains affected; his eye is clear, intelligent, and free from suffusion, but he raves at intervals, gropes with his hands, picks the bed-clothes, and grinds his teeth. Here we have not only an affection of the brain, but we observe, in the last-mentioned symptoms, one of the signs of intestinal irritation. In such cases, the vital energies are much depressed; you cannot use leeches or blisters or other depletory measures, it would be a great mistake to employ them What are you to do? prescribe opium in moderate doses and at certain intervals, as, for instance, from five to eight drops of black drop every sixth hour; give your patient a little wine, and have recourse to the spirit of turpentine. Here the value of this remedy is very great indeed, for it not only opens the bowels (a point of considerable importance in such affections), but also removes tympanitis, and exercises a powerful influence in controlling and quieting the nervous system. I have seen persons' lives saved by a few doses of the spirit of turpentine, and have watched its tranquillizing effect on the nerves with pleasure and surprise. The mode in which I prescribe it is, ℞. Spirit. terebinth. ℥j.; olei ricini, ℥jss.; aquæ, ℥j. ℿ Fiat haustus 6a. q. q. hora sumendus. Under certain circumstances, turpentine is likewise useful in intestinal hæmorrhage, occurring in fever.

A person in fever gets increased frequency of pulse, heat of skin, dry tongue, and, about the twelfth day, his head becomes engaged, his countenance flushed, eyes suffused, and a tendency to sensorial derangement. His bowels, at the same time, are affected, and tympanitis appears. Matters then grow worse, he begins to pass blood, and, on visiting him, his alarmed relatives show you quantities of thin grumous blood, which he has discharged from his bowels. Now, what course are you to pursue in this case? Stop all medicines whatsoever, and let your patient alone. Watch the progress of this discharge, and you will find that it disappears gradually, and when this occurrence takes place, never do any thing. As, in fever, a patient may get epistaxis, and it may usher in a favourable crisis, so, in like manner, he may have a critical discharge of blood from the bowels. In either case, you are not to interfere with the wise provisions of nature, or to give any thing which may produce irritation, or cause a cessation of this salutary process. You recollect a case of this kind in the hospital, which the students requested me to stop, and that I refused to do so, because I thought the hæmorrhage critical. But it may happen, that this sanguineous flux may go on so far as to threaten great danger. This is certainly an occasional result, for I have seen epistaxis terminate fatally. Here you must interfere to avoid a greater evil; and it is, at this critical period, that the internal

exhibition of spirit of turpentine, combined with opium, may be ventured on; but while the bleeding continues moderate, and exhibits no threatening indications, and is accompanied by a corresponding diminution of fever, you should leave the matter entirely to nature. You perhaps have seen a patient here, who, on the 14th day of fever, got this discharge of grumous blood, and may remember that we gave nothing but a little of the saturated solution of carbonate of ammonia. Now, if we had given this patient an opiate, we should have repressed a sanatory effusion, or, if we had given him a purgative, we might have precipitated it into a fatal hæmorrhage.

With respect to hæmorrhage, I have before laid down the principles which are to guide your treatment, and have exemplified some of those principles in practice. You have seen me treat hæmorrhage from the lungs by bleeding, saline purgatives, and hippo; you have, also, seen me treat a case of vicarious hæmorrhage in a female by small bleedings and ipecacuanha. There is another case, which I refer to, as it elucidates a different plan of treatment. A patient, in the Female Ward, had, about three weeks before admission, a discharge of blood from the vagina, which she looked upon at first as menstruation; it continued, however, for a week without pain, or any particular symptom, and then, suddenly, on the seventh day, while she was standing in the kitchen, pursuing her occupation as a servant, a great quantity of blood gushed forth, and obliged her to go to bed. For a fortnight, the menorrhagia continued in greater or lesser quantity, and she then was admitted into hospital. When you looked at her, you would immediately perceive that she had lost a great deal of blood, for her face was not only blanched, but (what you always find in such cases) had a peculiar yellow tinge, as if she was jaundiced. Ought we to treat this case by bleeding or by leeches; or were we to give her sulphate of magnesia, with infusion of roses, and sulphuric acid, or hippo, or digitalis? Certainly not. Her debilitated condition, the length of time which the hæmorrhage had lasted, the absence of any such premonitory symptoms, as pain in the loins, heat, feverishness, thirst, flushing, or any of those phenomena which usher in active hæmorrhage, and the peculiar hue of her countenance, all combined to prove, that the discharge was passive. I saw at once the nature of the disease, and decided on its treatment. I ordered the following mixture to be given every fourth hour:—℞. Aquæ fontis, ℥iss.; sulphatis quinine, gr. j.; aluminis purif. gr. x.; acidi sulphur. dilut. gt. x.; tinct. opii, gt. x. The alum, sulphate of quinine, and sulphuric acid are powerful tonics and astringents, and the addition of laudanum increases their beneficial effects, and tends to diminish irritability, and hence their adaptation to the case in question, and the favourable result which followed their exhibition; for under their use the hæmorrhage was arrested in twenty-four hours. I do not trust to any of these remedies separately, nor do I give any of them in large doses, for I find that astringents in small quantity, combined with a little opium, have a better effect in this kind of hæmorrhage than when prescribed in larger doses. I advise you, therefore, to follow this plan of giving astringents in moderate doses: it is an important rule, and you should not forget it. But what exhibits, in a stronger point of view, the efficacy of this mode of treatment is, that while she was taking those medicines she had a tolerably full diet, and took wine with remarkable benefit. The course pursued, therefore, was the proper one; and I hope those who have witnessed the case will make the knowledge they gained by it available on other similar occasions. Acetate of lead is another of those remedies which might be employed in such instances. Remember you are here not to apply cold generally or locally. When you are called to attend a case of menorrhagia where the hæmorrhage is active, one of the first things you do on entering your patient's chamber is, to throw up the windows and admit a stream of cool air, and then apply cloths dipped in cold water, &c. over the uterine region, and have recourse to the usual means to lessen the activity of the disease; but, in cases like the present, such practice is inadmissible.

A few observations, now, on that rheumatic affection of the joints, to which I shall give the name of *arthritic rheumatism*. You will meet, in practice, with cases of arthritic rheumatism, attended by fever, where, after the violent inflammatory symptoms have subsided, the arthritic inflammation will continue to wander from joint to joint, sometimes almost entirely vanishing, and then again re-appearing. You entertain hopes of getting your patient over the disease, and he is indeed better; but, on your next visit, you find that the pain has fixed itself—suppose in the wrist joint. If such a pain as this should appear while the acute symptoms are present, besides the general remedies, you would employ local means of relief; and some persons, as for instance, Dr. Elliotson, would make cold applications to the part: but this I do not approve of, nor would I recommend you to practise it. However, generally speaking, your treatment consists in leeching the affected part, the internal exhibition of colchicum, &c. What I would urge on your attention is, can you trust to leeches on all occasions, and at every period of the disease? No; there is a period when you must blister; there is a time when stimulant and tonic applications become indispensable. The general treatment of every case of arthritis must close with tonics. First, you pursue the antiphlogistic treatment, next you employ specific remedies, and lastly, you have recourse to tonics; and so likewise with the local applications. In the beginning, local pain, tenderness, and swelling, depend on active inflammation, and yield most readily to

leeching. As the disease advances, the number of leeches, which each fresh appearance of local inflammation requires, is comparatively less, and finally, the local affection, on its recurrence in any joint, is of such a nature, that leeching is no longer proper, while certain and almost immediate relief may be obtained from blistering. Blisters are better than leeches, not only because they possess the power of removing pain and swelling with more rapidity, but also because they do not leave the part in a weakened state. I tell you that blisters have a powerful effect in removing such pains, and that they may be used in cases of arthritis where they have not been used heretofore.

Gentlemen, another practical observation on rheumatism which I made before in the hospital wards. Cases of arthritic rheumatism will come under your notice, in which the pain and fever are, from the beginning, accompanied by sweating, and this sweating is not attended by any relief; the pulse remains quick, the fever persistent, and the pain undiminished. This sweating, be assured, never tends either to diminish fever or relieve pain; and this is the kind of arthritis which is most apt to terminate in confirmed affections of the joints, and may last for life. From my experience elsewhere, and from the observations I have made in the Hospital for Incurables, I have remarked, that most of those persons whose limbs are permanently stiff, or even distorted from rheumatic affections, have been suffering for years under this sweating arthritis. In one of the patients at that institution, a curious effect has followed this disease. The sweating was general over his body at first, but after some time it declined in the lower extremities, which seemed incapable of sweating any longer. The cuticle over those parts began to exfoliate and become dry and rigid. A still further change took place, and the lower extremities became covered with icthyosis. He lies in bed on his back in a helpless state, his legs and thighs covered with a horny unyielding cuticle, but his breast and face continue to sweat profusely as before. Bear in mind, therefore, that this form is liable to terminate, as I mentioned before, in incurable arthritis. Some of the senior students may, perhaps, recollect a poor man in the Chronic Ward of this hospital, who laboured for month after month under this torturing malady. He lay in a corner in this state, and it was a subject of constant regret to every body to see him in this pitiable condition without any prospect of relief. Practitioners are apt to make a mistake in the treatment of this disease. They find the pulse quick but very seldom strong, and rather forbidding than indicating the abstraction of blood. How are you to treat such cases? By the use of the lancet. Begin, however, cautiously; take away, at first, about five or six ounces of blood, and observe what effect this produces. If your patient's pulse is improved, his pain lessened, and the sweating diminished, you are encouraged then to bleed more boldly. Venesection is here our sheet anchor. You have seen how much relief it gave the man above stairs, and what a remarkably buffy coat his blood presented. His sweating was diminished considerably by this means; and did you remark how I got rid of this symptom entirely? By giving him minute doses of tartar emetic and opium. He had a mixture, composed of ℥ss. of the solution of tartarized antimony, and ℥ss. of tinct. opii, in ℔j. of water; of this he took ℥ss. every hour. It is hard to account for this, but it is a fact, that in some cases of chronic sweats, particularly those which attend hectic fever, you can put a stop to them by giving a few grains of Dover's powder at bed-time.

The sweating arthritis, in this man's case, was accompanied by a peculiar affection of the nervous system, constituting a species of delirium tremens; he raved occasionally, and had the delirium in a milder form. You observe, he was a fellow of intemperate habits, and when such persons are attacked by fever, or get a shock of the nervous or circulatory system (this is an observation of Baron Dupuytren's, and one for which the profession is much indebted to him), they are liable to get delirium tremens. Thus, if a drunkard has his skull fractured, or breaks a leg or an arm, he may have this affection superadded; and so in this man's case, where a degree of delirium tremens accompanied arthritic fever. Now here you have a remedy in the antimonial solution combined with laudanum. This combination has a powerful effect in controlling the disease; but, mind, here are the principles which are to guide you. When called to a case of this kind, you will sometimes find so much congestion, that you are obliged to leech, or even bleed. Opium here must be used with caution; it may bring on the congestion which you are anxious to get rid of. Well, give the simple solution of tartar emetic for some time; it will, perhaps, vomit and purge your patient—that will do no harm. You can then begin with the opium, adding to the solution a little at first, and afterwards more, and in this way you will safely pass the boundary which separates the antiphlogistic from the sedative treatment. Gentlemen, this treatment is not my own; I have derived it from other sources, but I believe, until lately, it was not generally known or described in books. I have seen it tried, and am convinced of its value.

Another thing connected with delirium tremens, not to be found in published works. There is a shade of this disease, which I think has not been described; it is this:—A person, not a drunkard, but indulging in the pleasures of the table, who fares well every day, takes his good wine, and perhaps two or three glasses of punch, enjoys good health for several years, and is, in fact, a man whom the world would call sober, temperate, and well conducted, but who, nevertheless, drinks more than is good for him, gets, suppose a cold, feels a little

feverish, bathes his feet before going to bed, and takes a little medicine next morning; his symptoms gradually decline, and he gets better; still he finds himself somewhat heavy; his appetite is bad, he complains of slight headache, and gets no sleep until four or five o'clock in the morning, and then he only slumbers; raves in his sleep, or dreams, and of this he is conscious, and it is remarked by his friends. During the day he is perfectly rational, and makes very little complaint. Now this will go off of itself in eight or ten days, but the physician, who is aware of it, can remove it in a much shorter time. He may be told, by the male part of the family, that his patient is extremely sober and temperate, and so forth; the males share in the drinking, and will not give the requisite information, but this may be procured from the females of the family; he investigates the man's habits, and finds out the cause of the disease. Now, the remedy for this is to lessen for a time the quantity which your patient drinks, and give him, at bed-time, an injection, containing fifteen or twenty drops of laudanum. Do this, and he will get quite well.

Concerning tartar emetic, I have to remark, that it was on a recent occasion, given in very minute doses to a dyspeptic patient with very great benefit. I borrowed this plan of treatment from a German writer, who states, that in cases of dyspepsia, accompanied by depraved appetite, foul tongue, and disordered bowels, he has seen tartar emetic, in small doses, act as a tonic, and clean the tongue. We find also, that not only where the quantity administered is small, but also where the patient is taking large doses, in many cases, it does not interfere with his appetite in the slightest degree. When tartar emetic first came into general use, it was employed in a variety of diseases, and we were in the habit of giving large doses, at the dispensary here, particularly to persons labouring under the inflammatory stage of gonorrhœa. Yet if you asked one of those patients what was the state of his appetite, it not unfrequently happened. that he would tell you that he could eat his breakfast and dinner heartily, though the medicine frequently vomited him.

Well, speaking of vomiting, puts me in mind of a case illustrative of the influence of the mind on the stomach in producing emesis, which I will relate to you: it was the case of an old lady, who had vomiting to such an extent that she died of it. She was rather a delicate woman, and had been ailing for some time, but still was likely to live ten years longer, or even more, for you will frequently observe persons who never enjoy robust health, and yet last a long time. Now, this lady met with a domestic calamity; somebody ran away with her favourite daughter. On hearing the distressing news, she was suddenly seized with a fainting fit, and vomited; this vomiting continued day after day, and week after week; nothing could allay it. I have described, in the last number of the *Dublin Medical Journal*, the case of a young lady, whose father's house caught fire, and who, in consequence, was attacked by vomiting, which terminated in organic disease of the stomach, and this went on to suppuration; a considerable quantity of matter came away, and the ulcer healed. I know another lady, an extremely fine young woman, who happened to pass by a barrack, in the country, where there were some drunken soldiers. One of those fellows came out, while she was passing, with a loaded musket; she begged of him not to fire until she passed, but, instead of doing this, he advanced and discharged his gun close to her ear: she immediately fainted, and afterwards got an attack of hysteria, accompanied by violent palpitations of the heart. Well, what was the consequence? Seven months since she was in the enjoyment of perfect health, and she is now dying of organic disease of the heart and dropsy *. This is an illustration of the effects produced by the mind on the body. I knew another instance: a young woman (by the by, those young women sometimes do a great deal of mischief), knowing where her father's money was kept, robbed him to a considerable amount, and ran away with her lover; her father and mother were so deeply affected by her conduct that both of them died within a year of dropsy and disease of the heart. For this case I am indebted to Dr. Townsend. I have seen another case of a lady labouring under spinal neuralgia, who was in a most miserable state of mind and body; there was one very curious circumstance connected with her case; if you made pressure on the nape of her neck, over the spinous processes, pain darted along both arms to the fingers; if you pressed between the shoulders, over the upper dorsal vertebræ, she got cough and palpitation of the heart. When pressure was made lower down, the stomach and intestines filled with wind, she had eructations, nausea, and tendency to vomit; and in this way you could affect different parts of the system according to the part you pressed. This case was under the care of Mr. Ferrall, and he told me that she had thrice been getting well and thrice had relapsed, in consequence of the firing of pistols by some boys, near her windows. So you see, gentlemen, that the sound of the explosion of fire arms is sometimes very dangerous to females. Within a few years, a young lady, at Kingstown, (Dublin,) lay ill in a very dangerous state of nervous irritation; the least noise excited alarming paroxysms. The application of her friends to forbid the firing of great guns on board his Majesty's

* I attended this case, along with Mr. Carmichael, of Stephen's Green; she died since. There was general hypertrophy of the heart, and extensive disease of the mitral valves!

ships, then in harbour, did not succeed, although they had some interest at court, and had applied in what is termed (how appropriately!!) the *proper quarter*. I forget which it was, a single gun fired at the rising of the sun, or a *feu-de joie* to celebrate the King's birth-day, which killed her, but certain it is, one or other did prove fatal.

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

PHYSICIAN TO, AND LECTURER ON CLINICAL MEDICINE, AT ST. THOMAS'S HOSPITAL,

Monday, Jan. 14, 1833.

Variola—Apoplexy—Epilepsy—Synochus.

GENTLEMEN,—Before I speak of the cases that have been discharged, I wish to draw your attention to one, the symptoms of which were rather obscure, occurring in a female, who was admitted on the 19th of December into Anne's Ward. It is more particularly my wish to direct your attention to the diagnosis, and not to the treatment of the case. The woman was admitted at the time I was going round the hospital, and subsequently to my prescribing for her was treated by Mr. Whitfield, the apothecary of this Institution. It happened after that time I was obliged to be absent from the hospital, and did not see her again for six days, so I could not, with propriety, speak of the treatment; nevertheless I perfectly concurred, from the report of the case-book, in that adopted by him. The case is this:—Matilda Young, aged 19, states she was taken ill the day before her admission with sudden pain in the head, acute pain in the loins, and pain in the epigastrium, accompanied with vomiting. These symptoms becoming urgent, she applied to a medical man for relief, who bled her, immediately after which she said the symptoms were somewhat relieved, but in the course of a short time returned as bad as before. The practitioner told her she had inflammation of the kidney. When she came to the hospital, I found her countenance flushed; she was very restless, and had violent spasm of the glottis and larynx, accompanied with a sensation of suffocation. The spasm, indeed, was so violent at the time I saw her, that it appeared to me very like that of incipient hydrophobia, and was quite as bad as I have seen it in the first stage of that affection. The whole abdomen was painful on pressure; but upon pressing the sternum, ribs, and clavicles, she complained of the same pain. There was occasional vomiting; she also complained of constant excruciating pain in the loins, increased on pressure; the thyroid gland was enlarged, and she was labouring under bronchocele. The larynx and trachea were painful on pressure; there was redness of the throat, velum, and tonsils, but scarcely any heat of skin. The tongue was coated with fur; bowels open the day before she came, but was uncertain whether they had been open the day of her admission; pulse 104, full, not hard, but soft; and she stated, also, she passed a quantity of pale urine. There was no numbness down the thighs. From these symptoms, then, I should say the disease was neither gastritis nor enteritis, though it was difficult to give a diagnosis. Now, if the disease had been gastritis or enteritis, I should have looked for a different appearance of the tongue, and expected a different pulse: it would have been more frequent in its beats, smaller, and harder; but, on the contrary, here it was full and soft. There would have also been greater heat of skin. With respect to its being inflammation of the kidney, certainly there was vomiting and pain in the loins, but the pain was not confined more to one side than the other; consequently each of the kidneys must have been equally inflamed; besides, she said she passed a quantity of pale-coloured urine, which is not the case if that organ is in a state of active inflammation: for then the water is scanty and high coloured, and very frequently there is none. There is also, generally, pain and numbness of the thighs, and great heat of skin. Then, if it was not nephritis, what was it? Was it common fever? Synochus often sets in with severe precursory symptoms. But if fever, by this time it would have more fully developed itself: there would have been more heat of skin; the pulse would have been quicker; and probably some proof of congestion or inflammation going on in some organ It appeared to me most probable, from the symptoms, to be variola. I asked her if she ever had the small-pox, and also if she had been vaccinated, both of which questions she answered in the negative. I should not have had the least hesitation in saying it was variola, from the continued pain in the back, together with the other symptoms I have named, if she had not had that peculiar spasm attending the glottis and larynx. This certainly, for a time, made me hesitate in making up my mind as to the nature of the disease. I have frequently seen variola accompanied with sore throat and difficulty of deglutition, but never before saw it attended with such violent spasms of those parts; nevertheless, I could not help thinking but that she was labouring under the poison of variola, and expressed my opinion to that effect, which proved to be the case. The treatment I adopted on her admission was, to repeat the bleeding to a pint: and you recollect she was bled the day before she came in. She was of a full, robust habit, and had only come from the country a few weeks before. At this time a purgative was administered, consisting of five grains of the submuriate of mercury immediately, to be followed by half an ounce of castor oil; and to appease the spasm, I ordered her forty minims of the liquor opii sedativus, after the operation of the cathartic. The aperient medicine caused a great discharge of dark

fœtid matter from the bowels, mixed with a quantity of mucus. The anodyne relieved the spasm of the glottis, and she had a tranquil night. The next day small pimples appeared on the skin, and soon became vesicles. These spread, coalesced together, and soon became confluent small-pox. It appears to me that it was the bronchocele that caused the diagnosis to be so obscure, on her admission. At this time the thyroid gland was very irritable, and the spasm of the glottis and larynx was referable to the increased irritation of that organ. In small-pox, as in every other specific disease, you will always find the severity of the disease in proportion to the severity of the premonitory symptoms. After this I did not see her for several days—the sixth day. The treatment, of course, to be adopted was, to counteract as much as possible the severe symptoms; but you must bear in mind, that this is a specific affection, and, like all other specific diseases, will run its course; therefore, though by active treatment you may lessen the tendency to inflammation and congestion, still you cannot stop the progress of the disease. Subsequently the treatment (as appears by the book) consisted of five grains of the hydrargyrum cum creta every six hours, with a simple saline effervescing draught, which was ordered by Mr. Whitfield. At this time, for about three days, great attention was necessary, therefore I requested Mr. Whitfield to see her frequently. On the 5th day we generally find the eruptive stage completed. Well, then, on the Thursday morning, the eruption first made its appearance, continued on the Thursday, the Friday, and, on the Saturday night, the eruptive stage was completed; but, as is commonly the case, in the confluent form of the disease, the pustules had now become a little flattened, not containing a purulent, but a thin ichorous fluid, which was of a brown colour. She had not menstruated for some time, and, on the Thursday night, the first day of the eruption, a discharge of blood took place from the uterus, and continued, during each day, until Christmas Day, the 25th, when she passed something from the uterus, which both the sister and the nurse thought to be an abortion, and, upon their questioning the girl, she did admit, after a little hesitation, that one day, when walking across a field, some man came to her, and did something, but she did not exactly know what it was, but believed he intended no good. Soon after this, the discharge ceased to flow from the vagina; but, during the continuance of it, Mr. Whitfield, very properly, omitted the hydr. c. creta, and gave her ℥ xx. of the diluted sulphuric acid, in some of the compound infusion of roses. On the Wednesday following I saw her, just a week from the commencement of the eruptive stage: I found then that the swelling of the face had taken place unusually early; for, in general, it does not commence before the eighth day, though, in this case, I see by the report of the case-book, it had taken place on the fifth, had greatly increased on the sixth, with severe ptyalism, which is a common circumstance in this affection. When I saw her, the swelling had greatly decreased, her face was now quite pale, and the pustules contained a sort of ichorous fluid; her bowels were open; she took sufficient nourishment, and appeared to me to be going on favourably, and, when I left, I gave strict directions for her to be carefully watched, and should any alteration, or appearance of sinking, take place, some stimulant was immediately to be resorted to. Mr. Whitfield saw her on the Wednesday night; the symptoms remained much the same; the pulse was the same in number and strength; the tongue continued clean, and, therefore, he did not think it necessary to alter her treatment or diet. Soon afterwards, however, the symptoms began to change, and the patient to manifest symptoms of sinking. I am sorry to say, I think both the sister and nurse acted improperly, and since then I have spoken to them about it, for they ought instantly to have called either Mr. Whitfield or Mr. Stone, neither of whom were sent for; the patient still continued to sink, and, at a quarter past two on the Thursday morning, died. No inspection of the body was permitted by the friends, so, of course, I cannot speak of the post-mortem appearances. In the severer forms of small-pox, death frequently takes place in this sudden manner, the patient begins to sink; and, I think myself, if a stimulant, at that time, had been had recourse to, there would have been a great chance of saving her, though, I confess, I have frequently seen patients die in spite of the aid of all stimulants. Generally speaking, we find the swelling continues till the eleventh day, but in this case it terminated earlier, for, as I have mentioned before, the face began to swell three days earlier than usual; began on the fifth, increased very much by the sixth, and had entirely abated by the ninth; she had no swelling, however, of the hands or feet, as we generally find the case. There are many medical men who would think it prudent, at this period, to give stimulants, but I do not, unless the state of the pulse clearly indicates the necessity, for if the inflammation or congestion has disappeared, nevertheless, there is a great tendency to it; and, by giving stimulants at this time, you are very likely to cause it to occur in some organ or other, perhaps in the brain, lungs, bronchia, or abdominal viscera, &c. With regard to the extent of the eruption, when the disease is severe, on post-mortem examination, you find it in the fauces, larynx, trachea, and as far as the large ramifications of the bronchia; they sometimes are found at the commencement of the œsophagus, but are never discovered in any other portion of the alimentary canal. I merely have mentioned this case, as I told you at the commencement of my lecture, as a question of diagnosis. For such a circumstance is very likely to occur in your private practice. Suppose, for instance,

in a large family, she was a servant, and, attacked in this way, you are called in, and not able to tell the family what is the matter; the disease appears, and they discover it is small-pox, they would most likely say you were very ignorant, or, at all events, it might do you serious injury; but, at the same time, I am willing to admit it was a case in which there was great difficulty in giving a diagnosis. Now, it is a question, whether bleeding in the first stage is prejudicial or not; some say decidedly that it is wrong, because, being a specific disease, it will run its course, and, by bleeding, you will tend to debilitate the constitution, so as to render the patient unable to bear up against the effects of the poison: if the patient be of a spare habit and weak, I should certainly not have recourse to blood-letting, unless there was proof of inflammation or congestion in some organ. This woman was bled before she came in, though the person that bled her was not aware that she was suffering from variola: she was of a full habit, and could bear to lose blood, and I found it necessary to take some more blood from her after she was admitted. Although bleeding evidently will not diminish the duration of the pustules, I am satisfied, that taking blood in the first stage often prevents the occurrence of some congestion or inflammation, which might otherwise very likely occur.

Among the cases presented, there was one patient, who had an inflammatory state of the brain, accompanied with epilepsy, to which I wish next to draw your attention. Mary Watkins, a married woman, was admitted, December 6th, into No. 1 of Elizabeth Ward: she complained of a constant throbbing pain in the head, not confined to any particular part, but most severe over the right temple, accompanied with constant vertigo; she felt heavy, and was sometimes very stupid, indeed so much so, that she could not always give the same account of herself; her eyes looked dull, the sight was somewhat affected, and the pupils were sluggish. Six months ago, she was in the hospital for the same complaint, under, I believe, my friend, Dr. Elliotson, from whose treatment she found great benefit. She stated, that, during the last two years, she has been troubled with the pain and heaviness of the head, and, in that period, has had five epileptic fits, the last paroxysm came on fourteen days previous to her admission; sleeps badly; continually feels dull and heavy; tongue brown and foul; bowels regular; pulse 96, small and very feeble.

This case, gentlemen, you will observe, is similar to the one I spoke to you of at our last meeting. The case of Jonathan Hone, who had inflammation and congestion of the brain, was caused, I believe, from his being in distressed circumstances, which produced great mental irritation: this is a frequent exciting cause of this affection. This poor woman, under consideration, had been in the habit of drinking a quantity of spirits, which will cause this disease exactly in the same way as mental irritation. The treatment, in these cases, was not quite the same. I did not abstract blood so freely in the latter as in the former case. I had a blister applied to the vertex of the head, ordered two grains of the hydrargyri submuriatis to be taken twice a day, and she was put upon a milk diet. On the second and third day she complained of cough, and, as the pain in the head and severe vertigo continued, I had now some blood taken by cupping-glasses from the mastoid processes, to the amount of only ℥viii., and the next day she appeared easier; but you must recollect she continued to take two grains of the submuriate of mercury, and at this time, which was the fifth day after taking it, her mouth became sore. These cases of epilepsy, arising from congestion, are repeatedly occurring in this hospital, and by lessening the circulating system, giving mercury, so as to touch the mouth, applying blisters if necessary, keeping their bowels regular by aperient medicine, and putting them upon a low diet, we generally succeed in effecting a cure. This patient came in the hospital on the 6th of December, and went out on the 3d of January, perfectly free from all pain in the head, from vertigo, and all the other symptoms. During the time she was in, had no fit; the drowsiness also disappeared. I believe myself the mercury was more efficient in both these cases than the abstraction of blood. Jonathan Hone was of a much stronger constitution, and of a fuller habit of body than the patient I have been alluding to; but though this man became better after the bloodletting, you must bear in mind, his mouth became sore also from mercury the same evening, and to this I attributed, in great measure, his recovery. These cases I bring before you, merely to show how easily epilepsy is often cured, when you can trace the exciting cause; both of these arose from a congested or inflammatory condition of the brain; one produced from mental irritation, the other from drinking a quantity of ardent spirits. You may generally tell if it arises from this cause, by their having frequent head-ache, constant vertigo, drowsiness, and dulness of the eyes and countenance; the symptoms in both these cases, you perceive, were precisely the same. When cases like these are produced, from an inflammatory state of the brain, there is no difficulty in finding out a remedy, because you are acquainted with the cause. This condition of epilepsy is frequently caused by different affections of the alimentary canal, and by attending to them you remove the cause, and the epilepsy disappears. Unfortunately, however, this is not always the case, and the exciting cause remains very obscure. It does not appear to arise from inflammation or congestion of the brain, nor is it caused by any affection that we can trace in the alimentary canal; so we are then at a loss to know, what is the exciting cause, and until we can discover what it is, nine times out of ten our treatment will do no good, and our practice in those cases is

entirely empirical. The pathology too, with regard to epilepsy, is exceedingly obscure, and I certainly must confess, that I am quite ignorant of it, that is, what is the actual state of the brain during the occurrence of the epileptic paroxysms, whether at that time it is in a state of congestion or not; for if it depended upon a congested condition of that organ, I think we should have it occurring much more frequently than we do. The appearances after death vary considerably; I have seen, in some cases, a portion of the brain harder than natural; again, in others, I have seen it softer. Small spicula of bone too will sometimes be found, and this is said to produce sufficient irritation of the brain, or of its investing membranes, to cause the fits. Again, I have seen chronic thickening of the membranes; and sometimes, after death, I have not been able to find the least trace of disease to account for the symptoms. Now, supposing the fits to be produced by spiculæ of bone, this will not explain the nature of the paroxysm; for if they are caused by the irritation of the bone, the bone is constantly there: so, according to that theory, the fits would be constant, the exciting cause being always present; therefore, I think, it requires something more to explain it than mere increased action or congestion, or mechanical irritation. A thickening of the bones of the cranium has been a satisfactory cause to some for the production of the fits; but as I have before mentioned, I have frequently seen the autopsies of those who have died of the disease, without being able to trace the slightest affection of any part of the brain or cranium. With regard to many remedies that are said to have been successfully employed in the cure of epilepsy, I confess that I am very sceptical. I have known many patients admitted into this hospital suffering from that disease, and in whom the fits have frequently occurred, sometimes as often as two, or three, or four times a day, and in whose case every moral cause of excitement having been prevented, and having been put upon a restricted diet, with great attention to a proper alvine discharge, and for whom, at the same time, this or that of the remedies usually empirically employed in the treatment of the disease has been prescribed, have, at the expiration of some weeks, ceased to have any return of the paroxyms, and, at the end perhaps of the second or third month, have been discharged as cured, and that cure attributed to which ever of the medicinal agents might happen to have been employed; and have known that in a day or two after quitting the hospital, having of course been exposed to the ordinary moral excitement, the fits have immediately returned. I never, myself, should say I had cured a case of epilepsy, unless I knew the exciting cause, and the fits had not returned for full a twelvemonth after I had discharged the patient. This woman, I have not the least doubt, will be the subject again of the same affection; for previous to this, she was under Dr. Elliotson, who discharged her because she had no fit; and as soon as she resorts again to the abuse of spirits, the inflammatory condition of the brain will return, and a recurrence of the fits will be the consequence.

There was also another case presented from Elizabeth Ward, of synochus. She was admitted on the 29th of November, and placed in the first bed on the right-hand side, going into the ward. This case I wish particularly to draw your attention to, as it will show you the necessity of never giving up cases of fever, so long as there is life. We could not get any history of this case; for when she came in she was unable to tell it, only that she had been ill nearly three weeks. At this time the surface of her body felt cold; eyes much sunken; cold tongue, and there was a great collection of sordes about the teeth and gums; pulse countless, and very feeble; she had profuse diarrhœa, and experienced considerable pain from pressure on the abdomen, but more especially in the left iliac region; her tongue was red and glazed; from the symptoms, there was evidently inflammation of the mucous membrane of the large intestines. At the time of her admission she was very dirty, and covered with vermin; I therefore ordered the warm bath, and desired she might be well washed with soap; also ordered some of the decoction of stave's acre seeds to wash her head, and other parts infested with lice; this remedy I have found the most efficient means of destroying them. Her pulse was very feeble, therefore I supported her with beef-tea, arrow-root, and wine; and for the inflammation, she being too weak to lose blood either generally or locally at this time, I had a mustard poultice applied to the abdomen. On the second day after her admission she ceased to speak, and thus she continued during the whole of Thursday, Friday, and Saturday, when she became quite insensible, and apparently ceased to breathe. The sister of the ward thought she was dead; the mother also, who was in the ward, thought the same; and while the sister and nurse were in the act of laying her out, the former observed a slight inspiration, and then sent for Mr. Whitfield. This woman ultimately recovered, and left the hospital last Thursday perfectly well. The treatment consisted in giving her the simple chalk mixture, prepared according to the pharmacopœia for the diarrhœa, also a mustard poultice to the abdomen, and for the first three or four days she took three ounces of wine daily, with beef-tea. After this the wine was increased to ℥viij.; and though evidently there was inflammation of the mucous membrane, still, from the excessive debility, it would have been improper to have attempted any depletion, even by leeches; I kept up continual counter-irritation by blisters, and supported her with beef-tea, porter, &c. &c. After this, her diarrhœa continuing, I gave her five grains of the compound kino powder, which you know contain a quarter of a grain of opium, 4tis horis. After the irritation of

the bowels was removed, I gave her two grains of the sulphate of quinine, every six hours. The whole secret in the treatment of fever consists in sustaining the system when deficient in power; and, if there is too much excitement, in lessening it by the ordinary means. During the progress of fever, we generally find some organ or tissue affected; there is generally more or less of inflammation or congestion; sometimes we find the brain affected; sometimes the lungs, the bronchia, and frequently some part of the alimentary canal; so then we generally find some one of those tissues of the body taking on disease. Some people, therefore, choose the brain as the seat of this affection; others, again, say it is confined to the alimentary canal; and some say, there must be inflammation and congestion of the bronchia, with continued fever. I am sure that I have seen many cases of fever in which it was impossible for me to point out any one organ or tissue of the body, in which I could discover any positive disease, and still fever, to a considerable extent, was running on. And I have, on three or four occasions, inspected the bodies of individuals who have died of fever, in whom, after the most careful examinations, not any appreciable appearance of disease was manifested in any one organ or tissue of the body, but, apparently, have died from exhaustion. I have just taken leave of a gentleman before coming to the hospital, a pupil, who has been suffering from fever in nearly as bad a form as I ever witnessed it. In its early stage the brain was inflamed, and no sooner did it abate, than he was attacked with inflammation of the mucous membrane of the bowels, these symptoms abated by local blood-letting; still there was such tendency to inflammation, that I no sooner removed it from that organ than he was attacked with inflammation of the bronchia. By steadily persevering, however, with local bleeding, together with blisters, so long as there was any inflammation, and giving medicine that was necessary to allay the irritability of the bowels, he has got now well; and I am happy to say, he is able to go into the country to regain his strength. I mention this case to show you, there is no one peculiar method of treating this affection, but that each case must be treated according to its own individual merits. If there be any inflammation of any organ, or too much excitement of the system, lessen it; if, on the contrary, there be much debility, support the system with beef-tea, wine, &c. &c. The time, gentlemen, has elapsed; therefore I will not detain you any longer to-day.

REMINISCENCES OF AN ARMY MEDICAL OFFICER.

PART I. CHAPTER X.

I HAD not been long left to my cogitations when I was invited to the drawing-room, where I found six grave, sad, and discreet doctors, who were to treat me with a sort of *oyer* and *terminer*. Three chairs were ranged at either side of the fire-place, and a seventh stood in front of it. This formed the dock, in which I was to take my position. On my left hand, next to me, was Dr. Gregory, next to him Dr. Home, and beyond him again, next to the chimney-piece, Dr. Duncan. On the other side were ranged, in the same order, Monro (junior), Hope, and Rutherford. The elder Monro had ceased giving his attendance upon such occasions. These were, at that time, the only members of the faculty, though there were several other medical professors, some of whom have been since added to the number of the select.

After the usual compliments had been reciprocally paid, I was inducted to my chair, or, more truly speaking, my chair was indicated to me. Dr. Duncan opened the proceedings by applying the general preface of "*Describe mihi, domine, curriculum sanguinis circulationis.*" "Well," thought I, "so far as the Latin may go, so good," and the interrogation was promptly and satisfactorily answered. Indeed (to let a profound secret escape) it was whispered among the tyrones, the under graduates, viz. that this was always the way in which the touchstone was applied at the outset, and, I presume, no student, however stupid or idle, ever went unprepared with at least a correct reply; for my own part, I am certain that I could have furnished them with half a dozen. Forewarning, it is truly said, is forearming. Thence the learned and considerate gentleman proceeded to the redemption of his promise, as to the next course of interrogation *, and, after a conversation which lasted fifteen or twenty minutes, he made his bow, and handed me over to Dr. Home. He pursued the theme, and led me into a display of my acquirements in diagnosis, by trying me in

* See Chapter IX.

the discrimination between nephritis and nephralgia, and the principal remedies used in either. In the course of this conversation, some allusion was made to dropsical complaints, and, as soon as it came to Dr. Gregory's turn, he accosted me thus: "De hydrope locutum est—definitionem hujus generis morborum dare præcor." Thence we proceeded to the enumeration of remedies. I mentioned diuretics among others; but, in going over the list of those in use, I omitted one. The Doctor, with characteristic candour, informed me of my oversight, saying it could be no more than a lapse of memory; but even this apology for me did not bring the article to my recollection. At length, after sundry vain attempts, on my part, he prompted me with the word "digitalis." "Where is it to be found?" "In hac regione abundat." And there he finished with me. I could have wished his examination to be prolonged, so easy was it to understand his classical but clear language.

The next in order was Sandy. With him a recurrence took place to dropsical complaints, and to hydrops ovarii in particular. Here we had to decide between ascites and the other, as well as between both and uterine gestation. My answers were satisfactory, and this part of the performance was brief. The next was rather formidable, and even hazardous. It lasted also twice as long as any of the others. The Professor took me upon the chemical composition and mode of preparing the mercurial medicines of the Pharmacopœia; and, having devoted the greater part of that very morning to the re-consideration of this somewhat intricate subject, the result was, that I gave the wrong reply concerning one of them, though the correct one as to some other. The learned gentleman seemed to enjoy my mistake; though I question whether it was not one of his own causing. After tumbling through the list without giving the *required* satisfaction, I fell on my feet. "*Nunc,*" said he "*teligisti rem.*" Dr. Rutherford entered upon the subject of *Emphysema;* we went through its causes and consequences, and enumerated every recognized plan of treatment. "Supposing all these should fail, what is then to be done?" "Casus tum relinquendus est naturæ." The doctor did not hear me; and after one or two vain attempts to do so, he exclaimed, in one of his botanic garden pets (evidently not intending that my fate was to depend upon the finale of this hour and half's examination), "Casus relinquendus naturæ." I could not help, after the teazing I had experienced from Dr. Hope, admiring the benignity with which he rejoined—"*ipse dixit.*"

I was now required to return to the Library; and in a few minutes Dr. D. came to inform me that the Faculty admitted me as a candidate, but hoped I would bestow particular attention upon pharmaceutical chemistry, taking me kindly by the hand.

I presume, however, that there was a little commendable chicanery, if not waggery, connected with this exhortation; for, of all the parts of my examination, this was the one in which I had displayed the greatest stock of knowledge. It is, no doubt, considered wise and prudent to animadvert upon defects under similar circumstances; and I must admit, that it would be dangerous to let a successful aspirant to the highest honours in any profession, but more especially in medicine, launch into active life and practical responsibility, with the notion that he has nothing more to learn. The most complete and perfect academical education can go little further than putting the diligent student in possession of the keys of knowledge. As for the dunce, he never gets more than the ring to which the keys ought to be appended; and the effective education of the scientific philosopher begins, in reality, when dismissed from the nursery, and trusted to walk alone.

Upon reviewing this account, I have been smitten with an apprehension,

that some may consider it egotistical. I do not think the men of that era will be among the foremost to adopt this opinion; and as for my younger brethren, their turn of taking interest will duly arrive. When we get among the red coats, and the grand doings of vast general hospitals, as well as certain other situations of the most important nature, known to students by theoretical anticipation only, they shall see what they shall behold. In the mean time, my real object in furnishing the foregoing detail of my first, last, and only visit to Adam's-square (for I never attended any of the Sunday evening tea-parties, to which the kind old gentleman used to invite his pupils in rotation) has been to hold up the Edinburgh doctor in medicine as an unquestionably qualified person, so far as the conscientious discharge of duty, on the part of the judges, both towards the public and the candidate, may be concerned. For my own part, and as far as I was informed concerning other cases, there could be no cause of complaint as to the treatment of the *alumni*. Against the subsequent conduct of myself and many others, complaints of patients may perhaps be well founded; but we, and not our teachers, should bear all the blame. Had I been rejected, I am certain it would have been upon just and reasonable grounds: as it was, I could not be insensible to my happiness; but there could neither be favour nor affection to influence the decision of the faculty of medicine in my favour. Excepting in the crowd of students, no one of them had ever seen me from the time of entering as a pupil. Sometimes I ventured to ask a question concerning some passage of the lecture, while in the room: but no private communication had I ever with any of them.

This first and private examination was, at least in my time, decisive as to the candidate's qualifications; those which succeeded being, though not exactly mere formalities, held under circumstances which enabled him to benefit by the assistance of others, if desired. To the best of my recollection, my second appearance, before a committee only of the faculty, was about a fortnight afterwards, and within an apartment at the University. Upon this occasion all the candidates (our number being 36) * assembled together, though they were not examined in the presence of each other. A brief dialogue having taken place with the professors, an aphorism of Hippocrates was prescribed as the subject of a commentary to be delivered at the third examination, held under similar circumstances.

It was customary, before entering upon these trials, to submit the MS. of the inaugural dissertation, or thesis, to the Secretary of one of the Professors. I was vain enough to select Dr. Home for this purpose; not exactly because I had an exalted opinion of its merits, but because I was somewhat vain of my own exploit in having written it *sine operâ;* and I believed, from his not pursuing private practice, that he could bestow more attention upon it than others, who went guinea hunting. I had also implicit confidence in his candour and consideration for those in my circumstances. This feeling towards the indefatigable and philosophical Professor, must have been almost universal among the students, for he had received so many embryo publications at this time for the same purpose, that he was under the necessity of handing a large proportion of them over to colleagues—mine among the rest, to Dr. Hope, the courteously frowning, the hypercritical, the highly aristocratic, stiff, starched, powdered and shaved—Dr. Hope!!

Now (i. e. *sub examine secundo*) walked *his* cat out of *my* bag. Dr.

* This, however (to speak in terms which may be pardonable in me), formed the rear guard of the army of doctors levied that year: about 60 having been disposed of in June. I believe the average annual conscription was then, and still continues to be, about 100, though the whole force marches now in one column.

Hope had read the thesis for Dr. Home. Dr. Hope *eandem dissertationem certissime damnavit.* I was closeted with him after the examination was over, and he showed me so many *emendations* (I believe they were not all *corrections*) that I doubted whether, even at that stage of my progress, I stood upon sure ground. The truth was, that the doctor highly disapproved of the temerity of a candidate Latinising his own thesis, for reasons I pretend not to develop; and this may go somewhat towards accounting for the *cross* examination to which he had subjected me in Adam's-square. Let me here throw in a memorandum, that many of these dissertations were composed in English by the *ostensible* authors, and rendered into Latin by the *mysterious* grinder. Mine never was written in English at all; I *thought* in Latin, and it is by no means wonderful that I should, here and there, have broken Priscian's head, in a fit of absence or abstraction; not to bring in, by way of additional apology, an abstinence, during several years, from syntaxical pursuits.

As the commentary on the Hippocratic text was to be got ready at private convenience, and presented on the next occasion, it is evident the candidate could obtain whatever assistance might be judged necessary. He was not under the necessity of making any elaborate defence to the objections or criticisms of the revising Professor.

One of the preliminary exercises also was a case (of real occurrence within the experience of the Professor) upon which the aspirant was to furnish a written diagnosis and prognosis, as well as the name and treatment. Mine was one of hepatitis, given by Dr. Home; and the puzzling point in it was the pain being situated in the *left* hypochondriac region. Putting all the circumstances, however, together, I could make nothing but hepatitis of it; and I prognosticated recovery, if the treatment pointed out were adopted. The prescriber informed me, after perusing the paper, that I had judged accurately; the plan of treatment recommended was that which had been pursued, and the result had been every way favourable.

I do not, at this distance of time, recollect the particulars of the fourth examination; but it is a matter of no great importance, being no more than a form or ceremony; and I must defer till next chapter, my account of the great and concluding day.

CÆSAREAN OPERATION AT WOODBRIDGE.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—I am much surprised at your silence on the Cæsarean operation alluded to in your contemporaries, as I should expect some comments from one of you, who has acquired so much fame as an obstetrician. The case appears to me to warrant some criticism; I should, perhaps, say censure; for, according to the evidence given at the inquest, the surgeon proceeded to perform the Cæsarean section on a dying woman, whose pelvis was natural and even capacious. Instead of consulting with his equals, or seniors, in the profession, as he ought to have done, he selects two apprentices for his assistants, persons whose advice was not of the least value. But he alleges, as an excuse, that his brethren were on bad terms with him, and consequently he would not consult them. This is no excuse at all; the patient had nothing to do with the quarrels or squabbles of medical men, and was entitled to the best advice before she was submitted to one of the most dangerous operations in surgery. Mr. Rose, the operator, declares that the child could not be extracted in the natural way, and as the mother was certain of death, he thought it best to attempt to save the child. He also asserts, that he called upon Mr. Armstrong, a neighbouring surgeon, to consult with him, but that gentleman was from home.

As the operation excited great attention among the resident medical men at Woodbridge, an inquest was held, after much difficulty, as the parish officers considered it unnecessary. The evidence of Mr. De Lynn, a surgeon of thirty-four years' standing, of Mr. Smith, and Mr. Beck, proved, in the most positive manner, that the pelvis was natural, and therefore that the operation was not required. The jury returned a verdict of misadventure, and expressed their regret that the other medical men had not been called in before the operation was performed. I shall not offer a single comment upon this case, but consider it your duty to do so.

I am, gentlemen, yours, &c.

CRITO.

[Though there is great room for comment upon the above case, we cannot help thinking that some excuse can be made for the operator. It too often happens, that medical men in a town or village are on bad terms, and will not consult with each other; such was the case in this instance; but we think no surgeon would refuse his advice and assistance if required. He is morally bound by the ethics of the profession to forget all private feeling when human life is at stake, and to co-operate with any duly qualified practitioner. There are few who would incur the responsibility of such an operation individually. The conduct of the profession is very different; and we think those who choose to deviate from the established rule of practice learn, when too late, their want of wisdom.—EDS.]

FRAUDS OF CHEMISTS AND DRUGGISTS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—As a general practitioner and a constant reader of your able and truly scientific Journal, I offer you my best thanks for your fearless exposures of the infringements made on the branch of the profession to which I belong, by illiterate chemists and druggists. Setting aside the adulteration of medicines, which is now so general, that it is almost impossible to procure a single remedy in a genuine state, I ask, can any thing be more unjust, than that I and others, who comply with the regulations of the Hall, and spend five years in acquiring medical and surgical knowledge, should be deprived of our rights by men who receive no medical education, and yet who prescribe over their counters, and visit patients out of doors, and monopolize the whole of the prescription practice? It is of no use to qualify at the Hall, because there is no protection afforded those who do so. Some druggist's porter may oppose the licentiate apothecary, and what is the remedy? I know of none. But if a medical practitioner commences business before he is examined at the Hall, legal proceedings will be commenced against him, though he may be diligently prosecuting his studies at the time. But the chemist, who has received no education, who could not distinguish the lung from the liver, whose whole qualification is a dexterity in manipulating medicines, may bleed, cup, extract teeth, practise midwifery, give advice gratis, in a word, usurp the rights of educated practitioners, without let, hinderance, or disturbance from the Company of Apothecaries. The public make no distinction between the educated and uneducated; every man may call himself surgeon, accoucheur, chemist, and druggist, and, under these assumed titles, impose on the great mass of society. This state of things is not credited by those out of the profession; they can not imagine that the law of the land is so defective, as to take no cognizance of the pretenders to medical science. I hope and trust that you will continue to expose this system, and inlist the public press in the cause of right and justice, as well as of the public. You have zealously defended general practitioners, and your periodical is eminently entitled to their support.

I am, gentlemen, yours, &c.

A GENERAL PRACTITIONER.

January 29th, 1833.

DEFENCE OF CHEMISTS AND DRUGGISTS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—Your unmerited attacks upon chemists reflect little credit upon you as promoters of the interests of the profession at large; and while you denounce them, you have not, as yet, turned your caustic pen against general practitioners. You bespatter them with fulsome adulation, while you are blind to the abuses they perpetrate on the public. Do you really suppose that persons will pay 50 and 100 per cent. more for medicines than that for which they can procure them at a chemist's? Do you seriously imagine that prescriptions are not better and more accurately prepared by a chemist who has arrived at the years of discretion, and is behind his counter, than by a giddy unthinking apprentice in the surgery of a general practitioner? You are evidently too well acquainted with the world to entertain such an erroneous opinion. It is useless for you to contend, that patients will take their prescriptions to a surgeon's, when they can procure them at half cost from a chemist and druggist. You deem it monstrous abuse that chemists should prescribe at home, but you forget that general practitioners are always abroad, and that their apprentices or assistants are their prescribers; and under such circumstances, I do not think a patient is more likely to be injured with the one more than with the other. You have not considered it a hardship on chemists and druggists, for the Hall to be wholesale and retail druggists, and to monopolize more business than half the trade in London; but, I suppose, as you place them among the scientific part of the profession of the healing art, and as they are armed with an impolitic and unjust act of parliament, you can see nothing wrong in their conduct. You will please to recollect, however, that chemists and druggists existed long before the Apothecaries' Act was passed, and that the legislature could not, on the broad principles of justice, deprive them of their trade, or prevent them from pursuing it. I am ready to admit, however, that your charge, as to the adulteration of medicine, is unfortunately true in many instances, but by no means in all; and I also agree that medical reform is loudly called for: and in no particular is it more needed than in the drug trade, where a few are allowed to monopolize the advantages of the whole. I trust to your impartiality for the insertion of this letter.

A CHEMIST.

January 27th, 1833.

EXTRAORDINARY INQUEST.

ALLEGED MISCONDUCT OF MEDICAL STUDENTS.

AT the late inquest on the body of Edwards, who had disguised himself as a female, much blame was very unjustly ascribed to the medical students who were present, by the *Times* reporter. This person made it appear, that the students wantonly insulted the jury, and called them a set of jackasses. Now, the fact was, that some of the jury were so thick-headed, as to declare that the male sexual organs were merely glued on, which roused the indignation and ridicule of the students to whom the body had been consigned for dissection, and almost warranted their designation of the jury. We think the coroner and jury travelled far beyond the line of their duty, which was to determine whether or not the deceased had died a natural death. When Dr. Clutterbuck and Mr. Taylor had proved the affirmative, the court of inquiry should have terminated; and if it extended to irrelevent, disgusting, and brutal matters, the newspapers should not have published them, and demoralized the public, exposed the grossest depravity, and depreciated the pure and untainted morality of Englishmen.

THE

London Medical & Surgical Journal.

Saturday, February 2, 1833.

MEDICAL REFORM.

THE ROYAL COLLEGE OF SURGEONS.

"I think I hear a little bird, who sings
The people by and by will be the stronger."
BYRON.

IN imitation of the bad example set by the Royal College of Physicians, every medical corporation in the United Kingdom abounds with corruption, injustice, and abuses; the same spirit of monopoly pervades all. The advantages which belong to the profession at large are possessed and enjoyed by a few individuals, who select each other, and who exclude all the rest of their brethren. The truth of this statement is proved by the conduct of the Court of Examiners and the Council of the College of Surgeons. These are composed of about thirty hospital surgeons, most of whom were elected by private influence, and not on the grounds of competency or superior scientific attainments; all were chosen as apprentices to hospital surgeons. These thirty, and their apprentices, think it fair to enjoy all collegiate honours and emoluments, to the exclusion of all other claimants. This policy needs no comment. A Parliamentary inquiry into the state of the profession will speedily transmute it into a system more accordant with the liberal spirit of the times. But we must observe, that the College rulers frame by-laws for their own personal aggrandizement; they compel students to pay extortionate hospital fees to themselves, and for these they give scarcely any instruction. They are most inattentive in their visits to the hospitals; they are generally as silent as mutes; they run from bed to bed, and do not give each case half a minute's consideration; they preserve no clinical record of diseases; and, in general, they leave the bewildered students to learn disease by intuition or inspiration. For this valuable mode of instruction they exact 26*l.* 5*s.* from each student, while hospital attendance in Edinburgh costs 5*l.* 8*s.* and in Paris, 5*s.*; in either of which places there is more real information communicated in one hour, than in a London hospital in a month. In the Scottish and French schools, the diseases of the patients are described and recorded; the case-books are copied by the students; and lectures are delivered on each case while the patient is under treatment; thus affording the learner an opportunity of observing for himself every form of disease. In London, there are few case-books, and in some hospitals these are locked up, lest the student should see them! The names of the diseases are not even placed over the patients' beds, and the pupil has no means by which he can gain a proper acquaintance with disease. In truth, the system of clinical surgery in London is the worst in Europe, and is a disgrace to those who give it, both as hospital surgeons, and as guardians of the public health in their official capacity of Examiners. Nevertheless, the most eminent surgeons in this metropolis are open to this accusation. How

can the examiners reconcile their by-laws and exactions with honesty, justice, and conscience? They cannot be so insane as to suppose, that they alone are entitled to immense fees, while the provincial hospital surgeons are excluded from all participation. Yet it is only within the brief period of two years, that attendance on county hospitals was recognised to a partial extent; and even now, six months' additional attendance on a metropolitan hospital is required. It must appear incredible to our continental and transatlantic readers, that the most renowned of our London surgeons could sanction such a system of surgical education. Such, however, is the fact, and no one can or dare deny it. Again, we find the College excluding some of our ablest surgeons from the council. It was only within a few years, that Sir Charles Bell, Professor Cooper, Mr. Brodie, Mr. Travers, and Mr. Lawrence were admitted into that body, while many preceded them who had not the slightest claim to distinction. Even as yet, Mr. Copeland Hutchison, one of the best practical surgeons in this country, is without the pale; and the late Mr. Brookes, with Mr. Carpue, were deemed unworthy of having a voice in the management of college affairs. Another charge against the institution under notice is, the superficial examination for the diploma. The candidate is most severely examined on minute and useless anatomy, while he is asked to describe one or two operations, and, on passing through this terrific ordeal, he is considered entitled to the diploma. The great defect in the College examination is, that it is far too theoretical, and by no means sufficiently practical. The candidate is not asked a single question on what some have denominated medical surgery, or on materia medica, chemistry, pharmacy, botany, practice of medicine, obstetricy, or medical jurisprudence. He, therefore, devotes his whole time to anatomy aud surgery, and receives a qualification, nominally entitling him to practise surgery, though he is, in reality, to prescribe for fifty medical cases to the one surgical, because he is to practise as a physician, surgeon, and obstetrician. It was forcibly observed by Sir Charles Bell, in an introductory lecture at the London University, that "we had no schools of medicine in London until the establishment of the University —all were schools of anatomy."

When we contrast the examinations for a physician and a surgeon, there is the greatest difference that can be imagined. The candidate for the degree is examined six different times, in a dead language, in all the branches of education—in all those omitted by the surgical examiners; and yet, some ignorant individuals have had the hardihood to decry and abuse physicians as a body; to declare them, in point of learning, education, and scientific knowledge, not only inferior to surgeons, but even to apothecaries, and consequently, to the horde of pretenders who usurp the titles of both. Again: it has been argued that the examination at Apothecaries' Hall

is as strict as that for a degree, or for admission into the College of Physicians. To this we reply, that there is no room for comparison. The time, we hope, will never arrive when the physicians of Great Britain and Ireland will possess no better pretension to a liberal and classical education, than a competency to translate and write prescriptions, and translate the first and third books of Celsus, aided by ordos and interlineal translations. Neither will it occur, we opine, that any examiners in physic will be obliged to employ a deputy to examine in Celsus or Gregory. It is the custom of late to condemn classical knowledge in a medical practitioner; but those who entertain the opinion are persons whose early education has been neglected, and who have never imbibed the noble sentiments of the Greek and Roman authors. Such are few in number; but, as they attempt to deceive unthinking students, they well deserve exposure. When we reflect on the examinations at the College and Hall, and on the scanty information of some of the successful candidates of both places, we are often astonished on learning that testimonials have been granted. There are, however, some redeeming features in the College: it possesses a splendid library and museum, and these are liberally thrown open to members, without cards of admission, as required by our sagacious friends in another quarter.

These advantages are great to those residing in town, and are afforded with politeness and courtesy, while the College of Physicians refuse admission, even to their own members, to their library or museum, unless by an order from a Fellow, save the mark! Let the College of Surgeons abolish, as soon as possible, exorbitant hospital fees, which must be done on the establishment of the University Hospital; let the period of study be extended, and the attendance on lectures required for six winter seasons; let the examination for the diploma occupy an hour each day for two days; all of which are exacted in Dublin; and let all the branches of science be included; and then an order of surgeons will arise, in this part of the kingdom, very far superior to the existing one. In fine, let the offices of examiner and council be open to all who have distinguished themselves by their attainments, and then the Royal College of Surgeons will be respected both by the public and the profession.

TO THE MINOR SUBSCRIBERS TO DR. RYAN'S FUND.

GENTLEMEN,—It has given me (as the proposer of a reduced scale of subscriptions for the above laudable purpose) great pleasure indeed to observe the demonstration of right professional feeling which the proposal has elicited. I was convinced, that it only wanted a "bell-the-cat" to carry the desired measure. The ice (to change the allusion) being once broke, there could be little doubt as to the conduct of the fleet; and now descending on shore, or rather disembarking, I look upon you as the rear-guard of an heroic army, overpowered for the moment, but not *beaten*, retreating before a triumphant, though *questionably* vic-

torious, foe. Away the whole force must go, for the moment; but, we trust, we are only repairing to a position where we shall be able to recruit our strength, and take measures for a renewal of the campaign, under more favourable circumstances.

If, then, this simile be to the purpose, and you *do* form the rear-guard of this army, which, if united, would be truly formidable to its traitorous opponents, consider how much the general safety depends upon you.

In conclusion, I beg most solemnly to declare, that I am not one of Dr. Ryan's committee, and that I do not suppose I am known to them, although my proposal may have been submitted to their consideration, before it was made public. Who I am, can be of no consequence. The proposal is approved of, and wants but a little time to effect its object. I trust the subscription will hereafter be a *flourishing* concern, and as such will meet with adequate support.

ORIGINALIS.

ST. GEORGE'S HOSPITAL MEDICAL AND SURGICAL SOCIETY.

On Thursday, January 17, Mr. Higgins read a paper on the physiology of muscular structures.

On Thursday, January 24, Mr. Jones produced a paper on the filling up of cavities of wounds, attended with loss of substance. An interesting discussion took place, on which Mr. Lane and Mr. J. Smith spoke at considerable length.

ZOOLOGICAL SOCIETY.

January 22, 1833.

After Dr. Grant's third lecture on the structure and classification of animals, the second regular meeting of the society was held, at which a member of the council presided. A communication was read, which had been received from Mr. Telfair, the secretary to the Natural History Society of the Mauritius, the paper having been written by a French naturalist residing at Madagascar. It described a singular dripping tree of that country, from which a fluid fell copiously during the hottest part of the day, the quantity bearing a proportion to the intensity of the sun's rays. The leaves of this tree, which is considered to be a species of mulberry, are infested with the *larvæ* of an insect, allied to *cicada spumaria*, but probably as yet undescribed; from the bodies of these *larvæ* the fluid was observed to descend; it was transparent, without any disagreeable taste; and animals permitted to drink of it appeared to suffer no inconvenience.

Mr. Bennett made some observations on a preserved specimen of an antelope from India, which closely resembled the young of *antelope cervicapra* of Pallas.

Short descriptive characters were also read of several new species of shells from the collection of Mr. Cuming. Dr. Grant read a notice of the occurrence of *janthina communis* and *velella limbosa*, of both of which he had found specimens in considerable numbers in September last, on the shore near the Land's End, Cornwall, after a gale of wind. The anatomical structure of both animals was described. Mons. Rifaud afterwards exhibited his numerous and beautiful zoological drawings made during his long sojourn in Egypt and Nubia,—after which the meeting was adjourned to February 12.

MEDICAL SOCIETY OF LONDON.

Monday, January 28, 1833.

Efficacy of Secale Cornutum—Ascites, with Disease of the Heart—Phosphorescent Urine and Fæces.

Dr. Burne, President, in the chair.—The minutes of the last meeting were read and confirmed.

Mr. Proctor stated, that in some cases, in which the ergot had been administered, the patients complained of a thrilling sensation of the muscles

of the abdomen, after the uterus had expelled the infant. He wished to learn from the society, if other members had noticed a similar effect. He thought that the ergot should be used with caution in those cases in which the cervix uteri was undeveloped, and that, in all cases, the labour should be advanced and natural.

Mr. Burt inquired, whether any gentleman present had remarked, that the after-pains were more severe and of longer duration when the ergot had been employed?

Mr Hooper stated, that he had not noticed the pains more severe or continued, and had exhibited the medicine several times during the last week, and remarked that the placenta had come away in twenty minutes or half an hour, and the after-pains were not severe.

Dr. Williams was inclined to think, that nature was now too often interfered with in the process of parturition. If left to herself, she generally effected her object, but she sometimes needed assistance. In saying this, he did not wish to question the efficacy of the ergot.

Mr. Dendy related a case of ascites, for the purpose of eliciting information from the society as to the treatment, as it was one of considerable interest. A delicate lady, aged 24, the mother of three children, has been affected with violent palpitation of the heart since she was ten years of age. This was considered by many practitioners who had seen her, to arise from disordered function. During her last confinement she complained of severe pain in the perinæum, which continued for twenty-four hours, and also had hæmaturia. Some time after her delivery, Dr. Blundell saw her, on account of the disordered action of the heart, and, after a most patient examination of the chest with the stethoscope, was of opinion, that there was no organic disease; auscultation had not been tried since. About three weeks ago, she was suddenly seized with anasarca and ascites. There is now great prostration of strength; no appetite; pulse intermittent, with an occasional beat very strong; respiration very difficult; abdomen as distended as in the eighth month of pregnancy. Slight diuretics had been employed, but seemed to produce irritation of the kidneys; digitalis was tried, but it affected the head, and was obliged to be abandoned. He was anxious to learn the suggestions of the society, as his patient would not consent to a consultation.

Mr. Burt wished to inquire, why tapping could not be resorted to, and a small quantity of fluid drawn off at a time?

Mr. Dendy observed, that the case was of such short duration, he did not think the operation justifiable at present.

Mr. Bryant was inclined to believe that there was fluid in the chest, as well as the abdomen, and this could be easily ascertained by auscultation; he did not think tapping advisable.

Mr. Proctor considered the case one of great difficulty to manage, and he had known the tincture of lytta a valuable remedy when there was much debility. He attended a case of this disease with Dr. Williams, who was now present, (a gentleman at Somerset House) whose life was prolonged by this remedy. He could not assent to the idea of tapping under existing circumstances.

Dr. Ryan was inclined to infer, from the detail of the case, that the lady laboured under organic disease of the heart, but this remained to be determined by auscultation. If this inference were correct, he believed little could be done for the patient. He should be disposed to try hydragogue purgatives, if the condition of the bowels admitted. But the narrator had not alluded to the bowels or to the liver. He should also employ mild tonics, as he had repeatedly seen good effects produced by them, when there was much debility present. Moderate pustulation, by means of the antimonial ointment, applied to the abdomen, would be a useful auxiliary.

He did not think tapping was justifiable at present, and, moreover, if the dropsy was caused by organic disease of the heart, or its large vessels, the operation would only accelerate the fatal termination.

Dr. Whiting was inclined to attribute the dropsy to disease of the kidneys rather than to disease of the heart. Every one who had read Dr. Bright's work, must be aware of the frequency of dropsy in renal affections. He would propose the elaterium, in small and repeated doses, for example, the sixth of a grain every half hour until the bowels acted. He would use it to two grains. It was important to mention, that, if given in large doses, it irritated the stomach, was vomited, and consequently did not pass into the bowels at all. To show the efficacy of this medicine, he would briefly relate a case of a child, who had ascites after scarlatina. It was five years of age, and appeared to be nearly moribund. He ordered it the sixth of a grain of elaterium in a pill every half hour, and repeated the dose until nearly two grains were given, and until the bowels acted. A pint of serous fluid was discharged in the first dejection, in a short time as much more, and, in the course of a few hours, the dropsy was almost gone. The child recovered. His friend, Mr. Hooper, had seen this case. He would also advise acupuncture, and recommend that forty or fifty punctures should be made in the cellular substance of the inferior extremities, with a curved needle. A large quantity of fluid would be removed in this way. He would object to the lytta and tapping in this case.

Dr. Ryan asked Mr. Dendy, had there been symptoms of renal disease, and had the urine evinced the presence of albumen?

Mr. Dendy replied in the negative; he did not consider there was disease of the kidneys; he had not tested the urine, but should do so. He also wished to state, that there was no evidence of disease in the liver.

Dr. Burne observed, that it appeared to him, there was most probably organic disease of the heart, and also fluid in the chest, in the case under consideration. He thought it extremely desirable to employ auscultation, and to ascertain whether there was albumen in the urine. He had seen, most probably, all the cases referred to by Dr. Bright, as well as many others, and had arrived at the conclusion, that disease of the kidney was a frequent cause of dropsy, and was easily detected by the coagulation of the urine. The symptoms of renal diseases were not always well marked, but the albuminous urine was a certain sign. He believed that ascites, and other forms of dropsy, were almost invariably, if not entirely, produced by organic disease of the heart, liver, or kidney. In such cases, very little could be done, and all violent measures should be avoided. Much more benefit would accrue from the employment of mild tonics and nutritious diet, than from ordinary remedies. He should suggest the trial of this plan in the present case, and should withhold his assent as to tapping or diuretics.

Dr. Waller stated that he had lately tried the extract of pyrula umbellifera in ascites, at the recommendation of a friend, without success.

The President and Mr. Dendy remarked, that it was strongly recommended by Dr. Somerville.

Mr. Stevens could not agree with Dr. Whiting, in considering that dropsy, after scarlatina, in children, and dropsy dependant on organic disease, in adults, could be treated in the same manner. In the former, a cure was speedily effected by any of the mild aperients, which was not the case in the latter. He had seen numerous cases of anasarca and ascites after scarlatina in children, some years ago, which readily yielded to ordinary purgation. About this time he had seen a case which, though not in point, he wished to mention:—it was one in which the urine was luminous.

Dr. Burne remarked, that Dr. Prout had noticed similar cases.

Mr. Dendy related two similar cases which fell under his observation.

Dr. Whiting alluded to a case mentioned by Dr. Mead, in which the patient was ordered phosphorus. On evacuating his bowels, he was astonished at the appearance of the dejection; but he should not describe it in the words of the doctor. He stated, that he had tested the urine in various diseases, and found it albuminous when the kidney was sound.

The time of the society having expired, the meeting adjourned.

MEETINGS AT THE ROYAL COLLEGE OF PHYSICIANS.

The first meeting of the College for this year took place on Monday evening, when 500 persons assembled, including the greater portion of the profession in this metropolis. About nine o'clock Sir Henry Halford entered the Library, accompanied by the Lord Chancellor, Viscount Melbourne, the Master of the Rolls, the Vice-Chancellor, Judges Tyndal, Gaselee, A. Park, J. Parke, Alderson, Patteson, Vaughan, Lord Henley, the Archbishop of Armagh, the Bishops of London and Chichester, and numerous other persons of distinction. Among these was Clot Bey, the celebrated French physician, who is the first European that ever received the appointment of Bey, without having renounced his religion. He was attired in the splendid costume of his rank and adopted country. Sir Hen. Halford read a paper on the moral and medical treatment of insanity, which was necessarily more a popular than scientific essay, and was listened to with great attention. The learned author dwelt upon the power of music in the alleviation of insanity, and illustrated the fact by allusion to the case of his Majesty, George III. He also stated that, according to his experience, it was advisable to allow the afflicted to amuse themselves with those pursuits which were agreeable to them in health.

Great praise is due to Sir Henry Halford for congregating such a galaxy of varied talent within the walls of an institution which, in past times, were seldom seen by the majority of those who ought to be interested in the fame of the College. The establishment of such meetings is a liberal feature in the management of the Institution; and we are confident that the time is at hand when other changes will be effected, which will ensure the respect and esteem not only of the great body of physicians, but of all members of the profession.

GEOLOGICAL SOCIETY OF DUBLIN.

At the first meeting for the season of this Society, Sir Charles Giesechè in the chair, his Grace the Duke of Northumberland, and nearly twenty other gentlemen, were announced as new members.

A communication from Mr. Molloy, relative to the conglomerate found near the beach at Kingstown, was read. A paper by Capt. Portlock, on the general features of the basaltic district of the North of Ireland, was read. The author stated several facts which seemed to bear out the conclusion, that the basalt of this district overlies and fills a chalk basin throughout its entire extent. The paper contained also some valuable suggestions as to the mode of tracing the direction of the volcanic currents, &c.

Two propositions were then made by the Council, to the Society. In one of these the Council desired to be authorized to conclude an arrangement respecting rooms for the purposes of the Society; in the other, they requested authority to make arrangements for the delivery of a course of lectures on geology, at the meetings of the Society. Both propositions were agreed to.

A paper was read by Dr. Apjohn, on the trap formations of the county of Limerick, and illustrative specimens exhibited. In this paper the author noticed many interesting points,

not adverted to in Mr. Weaver's paper on the same subject, contained in the Transactions of the Geological Society of London. The intimate union of the trap and calcareous rocks in this district was ably commented on by the author, and his paper contained a chemical analysis of some of the more remarkable rocks. The occurrence of basalt, in more than one place, in a perfectly columnar form, was also noticed.

Review.

The Cyclopædia of Practical Medicine. Edited by JOHN FORBES, M.D.; ALEXANDER TWEEDIE, M.D.; and JOHN CONOLLY, M.D. Part XIII. Jan. 1833. Sherwood and Co.

THIS work steadily proceeds and maintains its character. We were the first who hinted some improvements, which were speedily adopted. The hyperbolical praises bestowed upon it by our contemporaries were too glaring to be overlooked. We have not reviewed the work as it was published, because it has not been sent us since our criticism on the first number; but we are determined, in future, to notice it as soon as it appears. We make this avowal for the purpose of explaining to most of its contributors, who are our subscribers, the reason we have not noticed their articles. It is our determination, however, to review, or notice, every work of merit as soon after publication as our arrangements will permit, whether it be forwarded or not, and to praise or censure it according as it deserves: authors and booksellers shall not escape us by withholding their productions. In accordance with this resolution we commence with the work in question.

The number before us contains five articles:—Inflammation, by Drs. Adair, Crawford, and Tweedie—Influenza, by Dr. Brown—Insanity, by Dr. Prichard—Irritation, by Dr. C. J. B. Williams—Ischuria Renalis, by Dr. Carter. The first of these, which is the conclusion of the essays on inflammation, is extremely well executed; it contains every fact connected with the subject. This disease has lately been so ably described by Professor Cooper, in his lectures in this Journal, that it is unnecessary for us to allude to it any farther. The second article, on influenza, is ascribed to Dr. Brown on the cover, but appears to be the production of Dr. Thomas Hancock; it is the best and fullest account of epidemic catarrh in our language. The author has referred to the works of a great number of writers, both at home and abroad, and amassed a quantity of information which far exceeds the amount accumulated by any preceding writer. The third article, on insanity, may be fairly considered a treatise on the subject; it proves the author to be a humane, learned, and judicious physician. The fourth article, on irritation, is very creditably executed. We cannot, however, commend the last article on ischuria renalis; it is by no means as elaborate as it might be; there is a sad defect in all our works on the diseases of the genito-urinary organs; we still want an elaborate treatise on this class of maladies.

Upon the whole, we have no hesitation in declaring this number to be equal to any of the preceding ones. When we consider that sixty physicians of considerable eminence are contributors to this work, we should naturally expect that it ought to be superior in its kind. It is the only conjoint production, and we grieve to acknowledge it, which has emanated from a branch of the profession in this country; while in France there are no less than four different dictionaries of a similar description, extending to 110 volumes octavo. We shall not institute a comparison between British and French medicine. We shall content ourselves by expressing our opinion of the work before us, and that is, we think it entitled to be considered a book of reference

and authority. Many of the writers in it, though physicians of eminence in their respective localities, were heretofore unknown to the profession; but the opinions of experienced physicians are entitled to respect and attention. We therefore recommend the work to every one engaged in the practice of our profession. It must be a satisfaction to the practitioner to be aware of the opinions of the most eminent of our metropolitan and provincial physicians, and therefore he must perceive the advantage of possessing a work of this kind. To us, who must wade through the productions of all countries, the Cyclopædia of Medicine appears far inferior to what we might reasonably expect; it falls far short of our notions of excellence or superiority. This we have said in reviewing Dr. Copland's Dictionary of Practical Medicine, which, though the production of one writer, is far superior to the Cyclopædia. Were we given our choice to select either, Copland's would be our favourite. We are no respecters of persons, we indite what we think; we may of course be in error. The truth is, that the Cyclopædia and the Dictionary of Practical Medicine are different productions.

Hospital Reports.

ST. THOMAS'S HOSPITAL.

Rheumatismus acutus—Erysipelas—Ascites — Icterus — Frictions — Death—Autopsy.

JOHN SHEAM, aged 17, a turner, of scrofulous habit, admitted, November 1st, into Jacob's Ward, under Dr. Elliotson, says he has been unwell five days; complains of pains in his fore-arms and back of his hands; it is accompanied with heat, slight redness of the integuments, and there is swelling of the right hand, which symptoms came on suddenly: tongue rather white; bowels regular; urine natural; pulse regular. His friends state, that, two years ago, he was a pot-boy, and they are inclined to believe, that he drank a great quantity of spirits and malt liquor. He has had gonorrhœa twice, and venereal once, for which he was salivated. The pains are worse when warm. He is somewhat emaciated and of unhealthy appearance.

℞ *Hydr. submuriat,* gr. ij.
Opii gr. ½.
Fiat. pilula, nocte maneque sumenda.
Cold water to be applied to the hands.
Milk diet.

4. Much the same.

5. Hands and fore arms remain much the same. Bowels rather confined.

℞ *Vin colchici,* ℥ss.
Magn. sulph. ℥j.
Aquæ destill. ℥x.
Fiat. haustus ter in die sumendus.
Cold water to be continued.

8. Mouth tender; hands and arms remain much the same; bowels open two or three times a day from the medicine.

9. Instead of the man having his hands kept cool, as directed by Dr. Elliotson, he has contrived to remove the wet rags from his hands, though, when warm, he appears to suffer much pain.

10. He has been narrowly watched since yesterday, and the cold water has been constantly applied. Redness, heat, and swelling somewhat abated. Hands altogether appear a little better; bowels freely open from the medicine; dejections rather of a light colour, and watery.

Pergat in usu medicamentorum.

12. Hands much better since the constant application of cold water; mouth still tender, pains less. This evening a very slight blush of erysipelatous inflammation may be observed on the left side of his nose; pulse full, soft, and quick. Has been very irritable for the last twenty-four hours.

13. The erysipelatous inflammation remained much the same, until about two o'clock this morning, when it began to extend, and soon covered the

greater part of his face and nose. Dr. Elliotson saw him about two o'clock P.M., ordered cold water to be applied to the face, and, should it continue extending, an eschar to be made with the nitrate of silver, about an inch in circumference round the inflammatory part. The redness was very slight in the left hand, but in the right it was considerable, and there was heat with swelling. Now, in the left hand, the redness has entirely subsided, and not a trace of inflammation is present, but the right remains as bad as ever. The pulse in the right side is much larger and stronger than the left, although, of course, of the same quickness.

14. The erysipelas appears entirely checked since the use of the nitrate of silver, and the redness has somewhat subsided. The heat and redness in the right hand are less; still, however, the swelling remains much the same; bowels open twice to-day; dejections of a natural colour; pulse the same as yesterday.

Eleven o'clock P.M. The erysipelatous inflammation has now extended, through a kind of narrow passage in the upper part of the eschar, made by the nitrate of silver, which evidently was not touched by this caustic, most probably owing to some kind of grease that adhered to this part of the scalp, and prevented the effect of the application; this being the case, another complete eschar was made by the nitrate of silver, about a quarter of an inch beyond the inflammatory margin. The man now appears very irritable, and slight febrile symptoms have set in: the right hand again appears inflamed, and is painful on pressure; the pulse, on the inflammatory side, is much stronger and larger than on the non-inflammatory, but of the same quickness.

15. Half-past eleven o'clock A.M. The erysipelatous inflammation has again been checked by the nitrate of silver; other symptoms remain much the same as last evening. Two o'clock P.M., Dr. Elliotson now saw him, found him nearly in the state described, and gave strict directions, if the erysipelas should extend beyond the outer eschar, the nitrate of silver was again to be used, a little distance from the latter application.

Porter lb. j. *daily.*

Nine o'clock P.M. The inflammation appeared subsiding, until about half-past eight o'clock this evening, when the parts again began to look very red; now it appeared to be extending on the lower part of the cheek, and here also a slight furrow was observed to be left untouched by the nitrate of silver, not more than an hair's breadth, where the erysipelas passed through the eschar; consequently another eschar was made in this part.

16. The cuticular inflammation appears now entirely checked, and the heat and redness attending it have greatly subsided. The right hand still appears swollen, and gives him a great deal of pain on pressure. The febrile symptoms also have somewhat abated; tongue still remains rather white; appetite bad; respiratory murmur is heard all over the chest; bowels regular; pulse not so large or powerful in the right hand; in the left, its beats are weak but regular.

17. The erysipelas is subsiding. Hand a little better.

Pergat in usu medicamentorum.

20. Much better. A collection of matter has taken place in the integuments, covering the orbicular muscle of the eye, where an opening was made and the pus evacuated; hands much better, though still swollen, and rather painful; countenance become very anxious; he appears to get thinner every day; his cheek-bones are very prominent.

Omittantur medicamenta.

22. Another collection of pus has taken place just above the mastoid process of the temporal bone. Hands still swollen and painful.

24. This morning there is another collection of pus in the right temple, and appears to be situated under the temporal fascia. The right submax-

illary gland is a little swollen. Hands much the same; volume of pulse still much stronger in the right than in the left arm. Diarrhœa came on in the night, since which time the urine and fæces passed involuntarily.

℞ *Inf. catechu* ℥iss. *post singulus sedes liquidas.*

23. Diarrhœa checked; alvine dejections still of a light colour.

26. Since last report he has continued to improve; the erysipelas has entirely left him. Countenance not so anxious; tongue rather dry and red; bowels open twice a-day. Hand not quite so much swollen; pulse small, and rather feeble in his left hand: in the other full and strong.

House diet. Porter lb. j. *daily.*

Dec. 1. Hand very much swollen, and exceedingly painful this morning. From lying so long in one position, his back has become sore. Countenance still anxious; weakness excessive.

℞ *Quininæ sulph.* gr. v. *bis die sumenda.*

7. Better. The wound in the back discharges healthy pus. Appetite good; bowels regular.

Rep. quinine gr. v. *6tis horis capienda.*

11. The swelling in the hand greatly diminished. Continues to mend fast; appetite continues very good. He expressed a wish to-day for a mutton-chop, which Dr. Elliotson allowed him.

14. Hand and arm much better; the pain has nearly left him.

16. Remains much the same as on the 14th.

19. Last night his abdomen became suddenly very large, in the course of a few hours, and from the least pressure he experienced great pain. This morning the swelling and pain has entirely disappeared; urine scanty, not albuminous.

18. The swelling re-appeared last evening; the abdomen remains tense, and he complains of pain on pressure. Other symptoms remain the same.

℞ *Acet. potass.* ℥ss.
Tinct. digitalis, tinct. scillæ āā, ♏ x.
Acid. hydrocyanici, ♏ ij. *quotidie.*
One egg daily.

24. Urine more copious; the abdomen does not appear to have decreased in size. Hand much better; sores in back nearly healed.

℞ *Potass. acet.* ℈ij.
Tinct. scillæ, ♏ xv.
Tinct. digitalis, ♏ x.
Sp. æther nit. ℥j., *mist. camph.* ℥ x.
Fiat haustus ter in die sumendus.

27. Complains of great pain in the epigastrium; urine copious; abdomen very tense. Since the swelling has taken place, upon percussion, a sense of fluctuation is afforded.

Admoveatur cataplas sinap. abdomini.

28. A violent attack of diarrhœa came on in the night; the pain in the epigastrium relieved since the application of the mustard poultice.

Jan. 1. Hand still swollen and painful; diarrhœa checked; abdomen very much distended; urine copious; pulse small and feeble; emaciation continues; still remains exceedingly weak.

Emp. canth. manui dextro applicandum,
Vin. rubri ℥ij. *quotidie; omittatur tinct. digitalis.*

4. Diarrhœa returned on the 2d, and has continued since that time. Other symptoms remain the same. Hand much better.

℞ *Cupri sulph.* gr. ss.; *opii,* gr. j.
Fiat pilula 6tis horis sumenda.

6. Diarrhœa better; alvine dejections of a very light colour. This morning he appears jaundiced; his face and chest are yellow: so also are the white of his eyes, but he does not see objects of a yellow colour. Dr. Elliotson saw him to-day, and said he was afraid there was organic disease of the liver.

7. Much the same.

8. Continues to get weaker and weaker every day. Dejections still of a light colour. Swelling of the hand disappeared; volume of pulse now, in both wrists, the same, viz., weak and feeble.

Vin. rubri ℥iv. *daily.*

10. The jaundice has entirely disappeared. Bowels open once to-day; dejections tinged with bile. Abdomen

very much distended; appetite pretty good; remains exceedingly weak.

Vin. rubri ʒ viij. *quotidie.*
Two eggs daily.

14. Appears gradually to get weaker; the symptoms remain the same.

15. Much the same. Abdomen greatly enlarged, and exceedingly tense; and paracentesis abdominis was ordered.

18. The operation has not been performed, the man being exceedingly weak. He continued gradually to get weaker and weaker, and died at ten o'clock this morning.

Autopsy.—Upon opening the abdomen, nearly three gallons of serous fluid escaped; there were several small tubercles about the lungs, and about a pint of fluid in the left cavity of the pleura, which adhered firmly to the parietes of the chest, also to the diaphragm. The peritoneal covering of the liver also adhered to the diaphragm. The liver itself was covered with small tubercles, and its whole substance had become very much indurated; the greater part of the left lobe was even *fibrous*. Several inflammatory patches existed in the peritoneal covering of the small intestines. On examining the pancreas, it also was found indurated. The remainder of the abdominal viscera appeared healthy.—His friends would not allow the brain to be examined.

Bronchitis cum Hydrope.

W. Bowers, a muscular labourer, aged 47, of bilious temperament, admitted into Jacob's Ward, under the care of Dr. Elliotson, with general anasarca, from which he has suffered three months. States he was attacked suddenly with cold shivering, followed by heat of skin and slight œdema of the legs. A month after this he was seized with a general swelling of the body, which continues at the present time; there is also slight cough, accompanied with dyspnœa, and sonorous rattle heard by auscultation; respiration hurried; abdomen distended with fluid; legs œdematous; tongue nearly natural; bowels rather confined; urine scanty, and not albuminous; pulse soft, but full.

℞ *Ipecacuanhæ,* ℈j. *omni mane sumend.*
℞ *Potass. acet.* ʒss.
Tinct. scillæ, ♏ xx.
Tinct. digitalis, ♏ xx.
Sp. æther. nitrosi, ʒj.
Acid. hydrocyanic, ♏ j.
Aq. destill. ʒviij.
Fiat haustus ter in die capiendus.
Milk diet.

4. A large quantity of urine has been discharged since the medicines have been taken. In other respects remains much the same.

6. Complains of the powder making him very sick; swelling of the legs rather less; dyspnœa worse; sonorous rattle still heard in the chest; bowels open twice a day, alvine dejections of a natural colour; complains of pain in the left side of his chest.

Omittantur medicamenta.
℞ *Potass. supertart.* ʒss.
Pulv. jalapæ,
—— *Zingib. āā* gr. x.
Fiat pulvis omni mane sumendus.
V. S. ad lbj.

7. Blood much buffed.

9. Has been a little better since the bleeding; bowels open three times this morning; urine copious.

V. S. ad lbj.

10. Blood buffed and cupped; urine this morning rather albuminous.

11. A violent attack of diarrhœa came on this morning; cough very troublesome; breathing worse; countenance anxious; tongue very moist; sleeps badly; during the night has expectorated a quantity of mucus; pulse weak and small, 90.

Mist. cretæ comp.
Post. singulus sedes liquidas.

12. Diarrhœa continues, dyspnœa worse; countenance much more anxious than yesterday; mucous rattle in throat; pulse small, very quick, 110.

Rep. mist. cretæ.
℞ *Ammoniæ subcarb.* gr. v.
Tinct. opii, ♏ v. *ex mist. camph.* ʒiss.
Fiat haustus 4tis horis sumend.
Vin rubri, ʒiv. *daily.*

13. About six o'clock last evening a great change took place; countenance became pallid; eyes sunk; breathing very difficult; a slight inflammatory blush now appeared on both arms; thus he continued to sink until half past two o'clock this morning, when he expired.

His friends would not allow his body to be examined.

LITERARY INTELLIGENCE.

A TABLE showing the Classes and Orders of the Medical Genera of Plants according to Linnæus and Jussieu. Also—

A Table for finding the Class and Order of the Various Genera of British and Exotic Plants according to Linnæus and Jussieu. By THOMAS CASTLE, Esq. F.L.S. Trinity College, Cambridge, &c.

Dr. Philip is preparing a new edition of his Treatise on Indigestion, which will speedily appear.

BOOKS.

MEDICAL BOTANY, or Illustrations and Descriptions of the Medicinal Plants of the London, Edinburgh, and Dublin Pharmacopœias, with an Account of Poisonous Vegetables; illustrated with figures coloured after nature. By JOHN STEPHENSON, M.D., and JAMES MOSS CHURCHILL, M.R.C.S. F.L.S. Edited by GILBERT T. BURNETT, Professor of Botany in King's College, and to the Medico-Botanical Society. Royal 8vo. No. IV. January, 1833.

A Treatise on the Distortions and Deformities of the Human Body, including those of the Chest, Spine, and Limbs. By LIONEL BEALE, Member of the Royal College of Surgeons. Second Edition. 8vo. pp. 325. Plates. London: John Churchill. 1833

This work contains all the information on human deformities which has been published in this country and on the Continent. When we approved of the first edition, some of our honourable and veracious contemporaries censured it in the strongest terms. A new edition is an unfortunate proof of the value set upon unprincipled and uncandid criticism.

A. Cornelii Celsi de Re Medica, liber primus et tertius, accedunt translatio et ordo verborum cura Ioannis Steggall, Almæ Pisanæ Medicinæ Doct. &c. Londini apud J. Churchill. 1833.

This is a proper companion for the author's translation and Ordo of Gregory's Conspectus. It will facilitate the labours of those whose classical education is superficial, or has been neglected.

An Ordo Verborum of the First and Third Books of Celsus (these being the books selected for examination at Apothecaries' Hall) by which the student is enabled to place the words, so as to facilitate the translation. Carefully arranged by G. F. COLLIER, M.D. London: Simpkin and Marshall. 1832.

A very useful book for students, and arranged with that accuracy which characterised all the works of Dr. Collier.

A Table for finding the Commencements, Characteristics, and regular Inflexions of Greek Verbs, by affording at one view—1. A list of the letters which may commence a verb, with the manner in which they respectively receive the augment—2. A list of the characteristics of the present tense, with the change that takes place in the formation of the four other fundamental tenses—3. A table for finding the person, tense, mood, and voice of any inflexion of regular verbs in ω. By THOMAS CASTLE, Esq. F.L.S. of Trin. Coll. Camb. Cambridge, 1832. J. J. Deighton.

This table is calculated to facilitate the labours of those engaged in the study of the Greek language.

CORRESPONDENTS.

A. B.—The Apothecaries' Company may prosecute in such a case. The Act is clear and penal, unless a practitioner "was in practice on the 12th of July, and also upon the 1st of August, 1815"—55 Geo. III. A practice commenced on the 2nd of August is, therefore, liable to the control of the Company, and we do not entertain a doubt but the owner might be prosecuted. The degree of M.D. and the ample education of our correspondent, would be no defence; his only remedy is to present himself for examination, and obtain a licence, if he can. This recommendation must be disagreeable to a practitioner of nearly eighteen years' standing; but it must be adopted in self-defence.

Obstetricius.—The reviewer points out all the improvements that have been omitted, having followed them in a certain work which he had not the candour to name or to notice. This is one way of impartial reviewing.

Homo.—The envy of the man is boundless. He has not brains enough to produce an original sixpenny pamphlet.

Dr. Graves's lectures have been duly received.

Damages and Costs against Dr. Ryan for defending the honour and dignity of the Medical Profession nearly £800.

Amount of Subscriptions already received in aid of Dr. Ryan . .	£187	10	0
R. Tuthill, M.D. Assist. Staff Surg.	1	1	0
E. Neville, Esq. Earl's Court-house	1	0	0
— Lane, Esq.	0	10	0
F. Newbery, Esq. Wilton-place . .	0	5	0
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Dr. Burnes, R.N. 63, Russell-square	0	5	0

ALL Communications and Books for Review to be forwarded (free of expense) to Dr. Ryan, 61, Hatton-garden, or to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 54. SATURDAY, FEBRUARY 9, 1833. Vol. III.

LECTURES
ON THE
PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,
BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXII., DELIVERED NOV. 22, 1832.

GENTLEMEN,—I think it will materially facilitate the comprehension of the subject of *burns* to divide all the injuries, produced by the concentrated action of caloric on the textures of the body, into four principal kinds, the differences of which may be said to depend upon the degree of intensity, and the duration of the heat applied. I know of only two circumstances which affect this statement, namely, you will find, that, in parts of the body, where the cuticle is naturally thin, less heat and a shorter continuance of its action, will produce as much injury of the subjacent cutis, as could only arise in other situations, where the cuticle is thick, from a more intense heat, or a longer application of it. Then, gentlemen, another thing that makes some difference, is the state of the nervous influence in the part previously to the burn; for, a limb, in a paralytic condition, cannot resist the concentrated action of caloric so well as if its nervous energy were perfect. Thus, Mr. Earle had a patient, whose arm was paralytic, in consequence of injury done to the cervical nerves and the axillary plexus by external violence, which crushed the clavicle; now, this individual could not put the hand of her paralytic arm in moderately warm water, without its being scalded, and vesications produced.

1st. When the heat does not exceed a certain degree, and its application is only of short duration, you will observe merely an erythema of the part, a redness, like that of the mildest form of erysipelas, a simple efflorescence, which leaves a white spot for a few seconds after it is touched, and which, though more or less painful, is not attended with swelling, or vesication, nor, indeed, with fever, unless the injured surface be extensive. Such is the mildest description of a burn, or scald; the first degree of the injurious effects of fire, or heated substances, on the cutaneous texture.

2d. In the second degree, the injury has been more severe, and consequently you will notice swelling, and an effusion of serum under the cuticle, raising it from the cutis in the shape of vesicles. In this case, if the injury be extensive, or situated on the head, neck, or breast, there will be a good deal of constitutional disturbance, manifested by symptoms of fever—a sympathetic disturbance of the whole system, but a fever of a peculiar character, and generally preceded, when the burn is extensive, by great depression—a stage of *collapse*, as it were, during which you will remark a tendency to shiverings, a small, feeble, and irregular pulse, a pallid countenance, and cold extremities. In some instances, you will also find the stomach disordered, and that vomiting occurs, but much will depend on the extent of the injury. When re-action takes place, the pulse rises and becomes frequent, but is scarcely so full as in common inflammatory fever. In many cases of extensive superficial burns, with vesication, there is a difficulty of breathing, an oppression of the lungs, a kind of asthma experienced; a consequence so often noticed as to have raised suspicion, that it is owing to the particular functional connexion existing between the skin and lungs, as they are both concerned in the office of separating from the mass of the circulating blood an immense quantity of aqueous fluid. Whether this is the true explanation of the fact, I will not undertake to assert, but it seems rational. The vesications, frequently termed *phlyctenæ*, are sometimes formed directly after the injury, but often not before the expiration of a few hours. In particular instances, the cuticle, instead of being raised into vesicles, filled with a clear limpid fluid, is accidentally torn off, which is liable to happen in taking off the patient's stockings, or other parts of his clothing, too carelessly. The rete mucosum is then exposed, and the smarting

pain excessively severe. Of course, under these circumstances, you will find some degree of suppuration ensue from the denudation of the cutis; but, in other cases of vesication, the cuticle will sometimes peel off a few days after the phlyctenæ have burst, or been punctured, and a new tender cuticle be already produced, without any pus at all being secreted.

3d. In the third description of burns, the surface of the cutis is so injured, either by the degree of heat applied, or the duration of its application, that the mischief is unadvoidably followed by ulceration of the cutaneous texture, if not by the formation of eschars; and here, unless the burn be of trivial extent, the constitutional disturbance will be more severe than in the last variety; the collapse will be greater and of longer duration, the shiverings more protracted, and the pulse, when it rises, will be quicker, the oppression of the lungs more marked, the disorder of the stomach greater; and this in such a degree, that there may be continual sickness, and the vomiting difficult to appease. With regard to local appearances, Dupuytren's description is the best that I am acquainted with: the action of caloric on the rete mucosum and papillary surface of the cutis, in a degree adequate to the production of much ulceration of the skin, is denoted by gray, yellow, or brown stains, the discoloured parts being tolerably pliant, and not very sensible when lightly touched, though excruciatingly painful, when more rudely pressed upon. The vesications, frequently formed over the parts disorganized in this degree, generally contain a brownish, or bloody turbid fluid. If any eschar be present, it may either be thrown off in one piece at the ordinary period, or it may fall off in fragments, leaving superficial ulcerations, of more or less extent, upon the parts covered by the vesications.

4th. The fourth description includes the worst kinds of burns, in which the whole thickness of the skin, and sometimes also a part of the subcutaneous cellular tissue, are decomposed at once, and charred and converted into a dry, yellowish brown, or blackish insensible mass, the hardness and depth of which are commensurate with the darkness of its colour. With regard to the dead parts, produced by a burn, they are generally called *eschars;* but this term ought to be employed only when the parts are killed and charred immediately by the action of the fire, so as to be converted into the dry brownish, or black insensible mass, which I have described to you. The eschars are always twisted, or curled, as much as the nature of their connexion with the living parts will allow, and the surrounding skin shrivelled and drawn into radiated folds. When the parts are not destroyed at once, but, by the effect of previous inflammation, excited by the severity of the burn, then the appearances of the dead parts do not correspond to those of *eschars,* strictly so termed, but to those of ordinary sloughs.

Now, gentlemen, in very severe burns, not only the soft parts, which I have specified, namely, the skin and subcutaneous cellular tissue, may be killed, either at once by the action of fire, or afterwards by the inflammation excited; but deeper mischief may be occasioned. When the eschars, or sloughs, are restricted to the skin, the case forms the *fourth* description of burn in Dupuytren's classification; but the direct disorganization of textures may penetrate further, comprehending the fasciæ, muscles, and tendons, and such is the *fifth* variety of burn in that Professor's arrangement. His *sixth* kind of burn is that in which the whole thickness of a limb is destroyed by fire, and converted into a carbonized mass; in illustration of which, he quotes the case of a young man, who, while running through a foundry, put his foot into a place where the fused metal passed, the result of which was a total and instantaneous annihilation and decomposition of the foot and lower part of the leg, which entirely disappeared. The action of fire, then, may extend even to the bones, and this with greater facility when they are superficial; thus, a burn on the head may destroy a portion of the cranium, as you see exemplified in the skull which I now have in my hand. Of course, all burns, attended with eschars, or sloughing, if at all extensive, or very deep, are complicated with a severe constitutional disturbance, and sometimes the patient soon perishes from the shock on the system, without any re-action taking place. It is deserving of your notice, gentlemen, that the mortification from burns differs from traumatic gangrene in this respect, namely, that it is not disposed to spread beyond the parts originally injured; therefore, it does not call for immediate amputation in the pressing manner, so frequently exemplified in *traumatic* gangrene, where, if you were to wait for the appearance of a red line of separation between the dead and living parts, your patient would generally be destroyed before it had formed; but, in burns, you need not amputate with such expedition, as it is not the character of the mortification, seen in these cases, to extend beyond the parts originally injured.

Gentlemen, such are the several divisions of burns and scalds, recognized by the best writers on practical surgery; and we observe that Dupuytren makes the number amount to six—two more than are usually reckoned—by subdividing sloughing burns into three kinds, according as they affect the skin only, that texture and the muscles, or the whole thickness of a limb. After having taken pains to explain all these varieties of burns, it is hardly necessary for me to say, that it seems to me of importance that you should remember them, for they must at once convince you of the preposterous absurdity of representing any one kind of treatment as sufficient or proper for all descriptions and all stages of burns. To imagine that there can be any one plan applicable to burns of every degree of violence, appears

to me a sort of credulity, highly injurious in the study, cultivation, and practice of surgery.

Gentlemen, although I am convinced of the usefulness of the foregoing distinctions, let not any of my remarks lead you to suppose, that every burn or scald must correspond to one of the classes enumerated; or, in other words, that every burn must be either a slight efflorescence, or attended with vesication, or with ulceration, or with the conversion of the injured textures into eschars or sloughs. Do not imagine, that every injury from the effects of fire must belong exclusively to one of these forms; for such is far from being the truth: and, in severe burns, you will often see all the varieties and degrees of mischief exemplified in different parts of the same injured surface. This must be the case, because the intensity of the heat, and the duration of its application to different points of the injured surface or textures, are not precisely the same. This is another reflection, which must let you see how absurd is the expectation of finding out any one kind of application suited to every form of burns and scalds. On the contrary, experience will soon convince you, that it is frequently necessary to employ different dressings even for different parts of the same burn: one part may only be affected with slight inflammation, but another may actually be in a state of eschar, or mortification.

Gentlemen, in burns, the prognosis will depend on several considerations; and first, upon whether or not there is a great extent of surface injured; a scald or burn of great extent, though superficial, may prove fatal in a few hours, though a deep burn of trivial diameter may be productive of no severe constitutional disturbance at all. Secondly, in forming a judgment of the probable issue of the case, you ought always to take into account the depth as well as the extent of the injury, arising from the intensity or duration of the application of the heat. Thirdly, you should consider the situation of the injury; for burns of the head, neck, throat, and breast, are, *cæteris paribus*, much more dangerous than in other situations; burns of the trunk are more dangerous than those of the limbs; and burns of the pharynx and larynx are notoriously perilous, and frequently fatal. Fourthly, you must always take into calculation, likewise, the age of the patient. Infants meeting with burns are frequently carried off by convulsions; and you will also find, that aged and feeble individuals will die of burns, which would not destroy strong and robust persons. Well, then, gentlemen, in forming your prognosis, you should take into consideration the age, strength, health, and constitution of the patient, as well as the kind of burn. Burns and scalds of great extent, though they may be superficial, are constantly dangerous; whereas the worst description of burns, namely, that which is productive of eschars, or sloughing, may not lead to much constitutional disorder, or any perilous consequences, unless the injury be extensive, as well as deep.

Gentlemen, when I come to the subject of cicatrization, I shall have to notice a principle in the animal economy, by which the granulations of wounds and sores, after they have fulfilled the purposes intended by nature, contract and are removed, so that the original skin around the cicatrix is drawn towards its centre, whereby the formation of much new skin is rendered unnecessary. Now, as burns are frequently very extensive, the diminution of the cicatrix, produced by the removal of the granulations, has the effect of drawing the surrounding skin over the healed part with extraordinary power; and hence the origin of the serious deformities and distortions so frequently following severe burns. Thus, when the forehead or the cheek is burnt, the contraction of the cicatrix may permanently evert one of the eyelids; and the eyeball, thus being deprived of its natural protection, will be attacked with chronic inflammation and opacity of the cornea. This gives you an instance of the functions of a most important organ being impaired or destroyed by the contraction of the integuments after a burn. But, gentlemen, you will often see individuals who, after having been burnt in the neck, remain with wrynecks, arising from the cause to which I have adverted: the deformity is often, indeed, more than a wryneck, the head being drawn laterally almost down to the acromion; or forward, so as to bring the chin to the sternum. I have seen cases where not only the chin was pulled down to the sternum, but the mouth displaced at the same time, so as to produce horrible disfigurement. On other occasions, you will see the force of the contraction of the granulations exerted in such a way, that the joints will be fixed in positions at once unnatural, disfiguring, and useless. The thumb or one of the fingers may be drawn quite back, a good specimen of which you see represented in the drawing before us, one of the valuable performances of Professor Carswell. In other examples, the knee becomes permanently bent, and the limb no longer capable of contributing to locomotion, or the support of the trunk. The elbow, too, after a burn in front of the biceps, may be permanently fixed in the bent position, and this in a degree which may render the limb of little service. Here, gentlemen, is a drawing of a child, whose chin, you perceive, is pulled down to the breast, to which it is immoveably fixed, while the mouth is terribly distorted. This is an excellent and faithful representation, as indeed is every thing from Dr. Carswell's pencil.

Gentlemen, although surgery may be able to do much to prevent these deformities and mutilations, yet the risk of their occurrence ought not to be forgotten in the prognosis; and, in order to save your reputation, I advise you to apprize the patient, or his friends, of the possibility of such disagreeable events. Sometimes, I believe, it is hardly practicable to

prevent them entirely; and if they should take place, and you had neglected to explain beforehand the chances of them, you might not afterwards stand so advantageously in the opinion of the public. If you do not take the greatest care, serious inconvenience, and even an impediment to the use of the parts, will arise in another way, namely, from the adhesion of one burnt surface to another. Thus the fingers will sometimes grow together from this cause; so will the toes, or eyelids; and cases are met with, in which the lachrymal puncta and ducts are obliterated, so as to produce an incurable *stillicidium lachrymarum*, or dropping of the tears over the cheek.

Sometimes, gentlemen, in burns of the head, fatal effects result from the extension of the inflammation to the membranes of the brain. Here is a skull-cap which belonged to a patient who died from a burn on the head; a portion of it is in the state of necrosis, and the process of exfoliation has advanced to a certain stage; you may see a line of circumvallation formed all round the dead piece, the interior of which is rough and porous, showing that the absorbents had been at work in removing particles of its texture; the bone, in fact, had been inflamed before the necrosis took place. I have produced the preparation to prove, that the effects of inflammation from a burn on the outside of the head may extend to the dura mater; for the patient from whom this calvarium was taken, died from inflammation of the dura mater, thus brought on.

I mentioned, in a preceding lecture, that when erysipelas recedes or declines, a perfect recovery is often retarded by the occurrence of an inflammatory affection of the mucous membranes: the same fact is observed in regard to burns. The patient's restoration to health is often seriously impeded by the supervention of inflammation of the mucous membrane of the bronchia, stomach, or bowels. In some instances, where the patients died, Baron Dupuytren found the mucous membrane of the intestinal canal, at some points, not merely inflamed, but ulcerated.

With regard to the *treatment*, when the burn, or scald, is superficial and slight, the indication is to keep down inflammation, and by this means prevent or limit the vesications. If, gentlemen, you cannot accomplish the latter object, you must endeavour to prevent troublesome ulcers from forming under the vesications. In superficial burns on the limbs, the generality of practitioners prefer cold applications; the parts may be immersed in cold water, or covered with linen, wet with an evaporating lotion, such as vinegar and water, *liquor plumbi acetatis dilutus*, to which a little *camphorated spirit* has been added; or you may apply a lotion, composed of rose water and two grains of the acetate of lead to each ounce of the fluid, with which a proportion of acetic acid may be blended. These, and some other applications in favour with unprofessional persons, as *scraped potatoes*, all act on the principle of reducing the temperature of the part by maintaining an evaporation from its surface; thus they check the progress of inflammation and have considerable effect in preventing the effusion of serum, by which the cuticle is raised in the form of vesicles; but, for this purpose, it is necessary, that the cold should be applied promptly, for sometimes the vesications take place with surprising quickness. But, in many cases, cold applications cannot be used, as when the burn is very extensive, when there is tendency to shivering, when the pulse is feeble, when the patient is faint, or when the burn is situated on the trunk. These are cases never admitting of cold applications. Under such circumstances, you may apply the turpentine liniment, or equal quantities of turpentine, linseed oil, and lime-water. If the system be much depressed, a burn on one of the limbs may also be dressed, at first with one of these applications, and afterwards, when re-action takes place, you may have recourse to a cold evaporating lotion; but, during the stage of collapse, you should not weaken the circulation by venturing to use cold.

Of late years, the practice of dressing superficial burns with raw cotton has been introduced into this country from the United States of America; the cotton is carded, and the burnt part enveloped in it. This use of carded cotton was an accidental suggestion. The child of a lady, residing in America, met with a bad scald. The mother was carding wool in an adjoining room, and, not being within reach of immediate medical advice, she covered th injured part with the cotton that happened to be at hand, and, when it was removed, in two or three days, no vestige of inflammation was left, and the part entirely healed. The cure was so rapid, that the account of it excited the attention of a medical practitioner, who became acquainted with the fact, and he published the particulars of the case in Potter's *Medical Lyceum*. Professor Gibson, of the University of Pennsylvania, deems carded cotton an eligible application for superficial burns; but, in Scotland, the practice has been extended to the severest injuries from the concentrated action of caloric on the textures of the body. Dr. Anderson, of Glasgow, finds that it answers for all kinds of burns, not merely for superficial ones, and that it may be adopted in those which are attended with vesications, ulceration, and eschars. One great principle insisted upon by Dr. Anderson is, not to remove the raw cotton till the cuticle is formed underneath it, and the part is able to bear exposure. This practice is more followed in Scotland than England, and is frequently preferred at Edinburgh, where a slack bandage is sometimes put over the cotton. Now, gentlemen, it is somewhat difficult to be reconciled to the method of leaving the cotton applied so long as is occasionally done; for it seems repugnant to the advantage of cleanliness to let the discharge accumulate, or remain

for several days in the cotton: experience, however, must be your guide; and, though the advocates for this plan admit that the pain and inconvenience felt by the patient sometimes make it indispensable to take off the raw cotton sooner than recommended, such is not generally the case.

In France, a solution of the *chloruret of sodium*, or Labaraque's liquor diluted, I observe, is highly praised as an application to burns. The love of novelty is sure to obtain, in modern days, the trial of every thing on its first proposal; if it answer in one case, it is immediately considered that it may answer in others. Lotions, containing chloruret of sodium, I think, may deserve trial, when burns are complicated with a very offensive discharge or sloughing; but I would then rather use them warm, and merely for the purpose of bathing the skin with them, than as continued applications to the injured parts.

Another plan, introduced of late years, is that of sprinkling flour plentifully upon the burnt surface with a flour dredger; and so favourable are the reports of it, that it has been tried in some of the London hospitals and found to answer very well. The exclusion of the air, the absorption of the discharge, and the idea of protecting the part with a particularly soft application, seem to have first suggested the use of flour. The same rules are also observed, with respect to it, as with regard to carded cotton; the part is kept constantly covered with flour, and allowed to heal under a coating of it. As the flour, mixed with discharge, often makes a composition of a very adhesive kind, an emollient poultice is sometimes put on for the purpose of facilitating its removal. When any matter makes its way through the coating of flour, the custom is to sprinkle more of the flour over the part where the moisture appears. The principle is to keep the burnt surface completely covered and excluded from the air; and the only deviation from this maxim is, when the patient experiences such uneasiness as renders it necessary to remove the layers of flour first applied.

Gentlemen, the *second class of burns*, or *those attended with vesication*, may be treated with refrigerant evaporating lotions, or the lime-water and linseed-oil liniment; or, if you have a taste for novelty, with carded cotton, or common flour. But, the question here occurs, what are you to do to the vesications? Ought you to discharge the fluid from them, or leave it confined? Whatever you do, you cannot always prevent ulceration of the cutis. I believe, its occurrence is not much affected by the presence or discharge of the fluid from the vesications, and that it depends rather upon the degree of injury which the surface of the skin has sustained from the burn itself. In my own practice, I generally let out the fluid by making a fine puncture with the point of a lancet, more especially when the vesication is large and tense; and as the plan does not cause any bad consequences, I follow it in the hope that it may be in some measure useful. At the same time, I believe that it is not a matter of much importance, whether you puncture the vesications or not. When the cutis is exposed, you may apply the liquor plumbi acetatis dilutus, with two grains of the sulphate of zinc to each ounce of the lotion: an application that seems to promote the quick production of cuticle.

The *third class of burns*, or *those, in which the parts are so injured, that ulceration must unavoidably follow*, may also be treated with the lime-water and linseed-oil liniment, emollient poultices and fomentations, flour, or the turpentine liniment, which was at one period generally preferred as the dressing for every kind of burn. Suppuration is not the invariable consequence of vesications, but it frequently follows them. Occasionally, there is a secretion of pus from the part, without any appearance of ulceration, which secretion stops necessarily when new cuticle has been formed; in other instances, there are several small ulcerative points which spread rapidly and run into each other. As soon as healthy pus is secreted from the ulceration, the applications which I have just mentioned may be discontinued, and mild astringent ointments employed, as that of *calamine*, or the ointment of zinc mixed with the spermaceti cerate in equal proportions.

Of all the various descriptions of sores, those produced by burns are most subject to throw out high fungous granulations, which, not only seriously retard the healing process, but, if not repressed, lead ultimately to the production of a protuberant, dense, cartilaginous, ugly cicatrix. Mr. Higginbottom, in his work on the use of nitrate of silver, records some examples, in which the cicatrices constituted indurated masses of such size as interfered with the functions of the part, and it was judged necessary to have recourse to measures calculated to remove this source of disfigurement and lameness. For this purpose, he found the application of the *nitrate of silver* answer exceedingly well; and, if this observation should be confirmed by the experience of other surgeons, it is important, as superseding the occasion for more severe expedients. To prevent the occurrence of these hard, dense, elevated cicatrices, the best way is to keep down the granulations, by sprinkling them with *powdered myrrh* and *calamine* in equal proportions; or touching them freely with the *sulphate of copper*, or the *nitrate of silver*; or, when the situation of the injured parts will admit of it, they may be repressed with a roller, or straps of adhesive plaster.

Gentlemen, I have already called your attention to the contraction of granulations, and its effect in producing disfigurement, distortions, and the annihilation of the functions of parts, drawing down the chin to the breast, fixing the forearm close to the front of the biceps, or occasioning a displacement of the

mouth, or an eversion of the eyelids. Having given you this information, it is scarcely necessary for me to add, that, in the treatment of burns, one most important object should be, that of preventing such evils by every possible means; and, for this purpose, mechanical contrivances will often be indispensable to resist the force, with which the contractions are disposed to occur. Splints are frequently necessary, and, perhaps, if splints had been properly applied to the hand, represented in the drawing before us, there might not have been the serious displacement of the finger there noticed, amounting, indeed, to a dislocation. In burns of the posterior part of the thigh and leg, splints are also required to prevent a permanent flexion of the knee from taking place. Whenever the situation of the burn creates such a risk, you would maintain the limb in the straight position, and continue the splints for some time after the cure. So when the forearm is likely to be drawn up to the front of the biceps, by the contraction of the granulations, you would employ splints for maintaining the limb extended.

Sometimes the contraction is such, as to render it necessary to have recourse to operative surgery; for the horny, dense, cartilaginous cicatrix, if not removed, may make relief impracticable. Now, an operation that consists in merely dividing the hardened, contracted, puckered parts, is generally found to fail; for when cicatrization is complete, the same distortion or lameness returns without amendment. Hence it has been deemed advisable in some instances to cut away the indurated cicatrix altogether; a proposal which, it seems, is contained in the valuable but much neglected writings of Fabricius Hildanus, and was revived by Mr. Earle many years ago, without any knowledge of his having been anticipated in the scheme by a surgeon of another æra. In fact, Mr. Earle removed the whole of the horny cicatrix in the instance of a boy's arm, where the forearm was permanently fixed close to the front of the biceps muscle; but this would not have answered, had he not attended to the principle of bringing the sides of the wound together *transversely;* by this means, and maintaining the limb extended during cicatrization, and for a considerable time after the parts had healed, the contraction of the granulations was restricted to the transverse direction, and the result was very favourable. You will also find a paper on this subject, inserted by Mr. James, of Exeter, in the *Medico-Chirurgical Transactions,* worthy of your attention.

Gentlemen, let us next consider the treatment of the fourth variety of burns, namely, that in which the parts are either killed at once, and converted into dry eschars, or in which the inflammation is so violent as to proceed rapidly to the sloughing stage. This description of burn may be treated either with the applications used in common cases of mortification, that is to say, with emollient poultices and fomentations, or with such local remedies as are conceived to have a specific effect in the cure of burns, attended with the formation of eschars, or sloughing. Amongst the latter remedies, the turpentine liniment is particularly recommended, composed of yellow basilicon ointment, diluted with turpentine. This is the preparation, which made so much noise about thirty years ago, and was introduced into common use by Dr. Kentish: his principle was, not to let the increased action of the parts in severe burns subside too suddenly; but to support it, until suppuration had taken place. His practice was, therefore, first, to bathe the burnt surface with stimulating fluids, such as *camphorated spirit* or *æther,* and then to cover the parts with the turpentine liniment, spread on fine soft rag; and, when suppuration had occurred, he used to have receourse to mild astringent ointments. Thus, the strength of the applications was gradually diminished, in proportion as the increased action, preceding suppuration, was reduced, and more nearly corresponded to that of the surrounding healthy parts.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832-33.

LECTURE IX.

Ulceration of the Fore-arm—Ecthyma—Rubia—Yaws—Periostitis with Arthritis—Partial Paralysis—Mercury in Chronic Tumours—Hæmorrhoids—Delirium Tremens—Cause of Delirium.

Gentlemen,—Our wards, as you may have observed, contain, at present, several interesting cases. I shall commence with the consideration of one in the Chronic Ward. A man has been admitted with a peculiar ulceration affecting the fore-arm. I scarcely know what to call his disease; but though I am not able to give it a proper appellation, I think I can describe it with sufficient accuracy, and give you some practical hints respecting its mode of cure. You perceive, in the first place, that this man is much emaciated; you next find that he has not had syphilis for the last thirteen years; but that, two years ago, he was salivated in Stevens' Hospital for liver disease. After the use of mercury he never regained his former state of health; a cachectic condition of body ensued, and he remained wasted in flesh and reduced in strength. In this state of the system the present disease appeared. He first noticed one or two tumours under the skin, and you may have observed two of them at present on his body. One, two, or three, of these appear at a time, increase in size, arrive at maturity, then begin to decline, and are succeeded by a new set. They go through the following stages:—at first the tumour is small and circumscribed:

it lies under the skin, without any attachment to it or the subjacent parts; you can roll the skin over it, and it over the parts beneath; and it appears to be a solid substance, perfectly insulated, and having no attachments either above or below. In this state it goes on until it grows to the size of a walnut or small apple. It now no longer preserves the rounded form which it exhibited before; the pressure of the surrounding parts, and particularly the contiguity of bone or fascia, causes it, as its size increases, to become flattened and irregular on its surface. This occurrence is followed by a change in its structure. It begins to soften in its centre, and a deposition of fluid takes place; the solid part is diminished, while the fluid increases, and the whole substance is gradually converted into a mass of puriform fluid. In the mean time the integuments over this tumour become inflamed, contract an adhesion to its surface, and finally break. The discharge of the confined matter is not here, as in case of abscess, succeeded by the healing process; the tumour is removed by ulceration, but it leaves behind an ulcer with an irritable surface, discharging an ill-conditioned puriform fluid, and covered with fungous granulations. The irritability of the surface of this ulcer is very considerable, but the surrounding integuments are very little inflamed; the skin presents very little redness, but the edges of the sore are undermined. It goes on until it has destroyed entirely the original texture of the tumour; and, when this is accomplished, it does not seem inclined to spread or travel to the neighbouring parts; the work of destruction is confined to the place where the tumour has been, and to the investing integuments and tissues. It then begins to heal in one part, and, after some time, disappears, leaving behind it a remarkable cicatrix. When the healing process is set up, while the lump is small, the cicatrix is circular, and the skin smooth. But when it has assumed a larger size, the cicatrix becomes irregular and puckered on its surface; and the new cuticle which is generated presents an irregularity in its colour, having scattered over it thin whitish portions, intermixed with vascular skin: and this is characteristic of the disease. In what particular is this disease remarkable? First, in the length of time which it takes in arriving at its stage of maturity. Sometimes this extends to eight, in other cases to twelve, and you will find instances in which fifteen months will elapse from the time of its commencement until suppuration is established. It is also remarkable for the great pain which, after some time, is felt in the tumour, a circumstance which depends on a process going on in the tumour itself, and not in the surrounding integuments; for, if you squeeze one of those lumps, you will find it very painful, though, at the same time, the integuments over it are neither tender nor inflamed.

The last thing deserving of notice in this disease is, as has been noticed already, the absence of cutaneous inflammation. Now, with regard to the situation in which these lumps are commonly observed, if you examine this man, you will find an open ulcer on the outside of the fore-arm close to the ulna. You may also perceive that he has several scars on his extremities and body, all in the vicinity of bone. He has some along the back, close to the spinous processes; one on the shoulder near the scapula; others on the lower extremities, still near bone. He has one lump, however, on the outside of the thigh, not exactly contiguous to bone, but lying close to the fascia lata. The situation of this last lump would seem to point out its connexion with node. I do not, however, look upon it as a node of the fascia, because it can be rolled about over the fascia. It is not originally connected with fascia, though it may, towards its termination, contract an adhesion to it. You are, therefore, to look on it as neither an affection of bone nor of fascia. The disease is to be recognized by its history and insulated development in the subcutaneous cellular tissue; by its beginning as a small solid tumour, which, after some time, becomes painful, and which owes its size to morbid growth rather than inflammation; by the length of time which takes place before it begins to suppurate; and by the cicatrix which it leaves behind. Now, with respect to the nature of this collection of matter, would you call it chronic abscess? No; there are some characters in which it differs from chronic abscess; though it appears to have some relations to chronic or scrofulous collections of matter. Thus you will find persons labouring under the scrofulous diathesis, or of a cachectic habit of body, get an abscess, which may continue for some months, or even a year, without any redness of the integuments, increased heat, or even pain: in fact, without any more certain indication of the gradual accumulation of matter, than that which this swelling affords. It is to tumours of this kind that the name of cold boil has been popularly given. This differs from the former disease in the absence of previous deposition, and in the formation, from the beginning, of puriform fluid; while the lumps in question begin in a solid state, increase, still solid, and thus exhibit characters different from the chronic abscess, though, in the length of time that they take in arriving at maturity, and in giving rise to the formation of matter, they bear some resemblance. They differ, also, in their mode of healing, and in the cicatrix which remains. Again; if you look to the state of constitution, which we meet with in this disease, and observe what this man's habit of body is, you will find that it occurs in that cachectic state, which frequently follows the use of mercury. It arises in a habit of body which mercurialization has depraved, and it is never known, except in persons who have been using mercury. If, after two or three months, you cut into one of these tumours, you give no vent to matter, but

your incision is followed by a copious flow of blood. These tumours are sometimes so painful as to require an incision, and this is occasionally attended with benefit. I do not know whether it is that the incision checks their growth, or that it produces a more rapid development of the ulcerative process. It is possible, that we may be able to remove this disease entirely by excision, and that, when you discover one of those lumps in its first stage, before it has established any connexion with the neighbouring parts, you may cut it out with advantage. It appears to be perfectly insulated, the skin over it is perfectly sound and free from inflammation, and I can see no objection to excision. Now, how would you treat this man? If you look into books, you will find the information they afford on this disease very scanty. Bear in mind the peculiar state of constitution produced in him by the use of mercury. On this consideration, your treatment must depend; put your patient on a light and mild diet, and, if possible, send him to the country; the jusculum sarsaparillæ of the old authors will do him a great deal of service, and should be prescribed; nitric acid also exerts an influence which is almost specific in curing this disease, and may be given in large doses. Other medicines, such as arsenic, which I have employed in this man's case, and bark, will prove serviceable and facilitate the cure. You may have recourse to another thing (this I mention on the authority of Mr. Kirby, who has given me a great deal of information on this subject), and that is, when you have strengthened your patient's constitution by the means above mentioned, you may give mercury in mild alterative doses, and here you will derive very great benefit from De Velno's vegetable syrup. So much for constitutional treatment. I trust, from the description I have given, that you all will be able to recognize the disease, and treat it properly. Recollect, you are not to give mercury until your patient's health begins to improve. With respect to the local treatment of the ulcers, which appear towards the termination of the disease, your practice is simple and obvious. There is no necessity of leeching the surrounding integuments; all you will have to attend to is the surface of the sore; apply to this red precipitate in powder, or black wash, or carrot poultices, and you will considerably accelerate its cure. There is no use either in leeching or blistering over the lumps before they break. You may leech or blister over them as much as you like, it will do no good; they are insulated parts that will not be affected by this treatment, and will continue to grow until they have attained a proper size. We have also other similar diseases attendant on a broken state of the constitution, as rupia, a vesicular, and ecthyma, a pustular disease, in which, when the sores break, they give rise to ulcers with fungous granulations and unhealthy surfaces, and, after they heal up, present a cicatrix somewhat resembling that observed in this disease. There are other constitutional diseases also, such as yaws, which are attended with a peculiar affection of the skin. So that, you perceive, we have some persistent diseased states of the constitution, giving rise to chronic topical affections, which bear some analogy to the exanthemata; for, as in scarlatina, we have fever with scarlet eruption, so, in these instances, we have a kind of slow fever giving rise to ecthyma, rupia, yaws, &c.

I will mention to you now a curious process, which I believe some of you have not witnessed. You have seen a man, in the fever ward, labouring under periostitis and a syphilitic eruption. The periostitis we found to be mercurial, the eruption was syphilitic, and it was obvious that he had both lues and mercurial periostitis. We gave him sarsaparilla and nitric acid, and you observed that the eruption declined, and the periostitis rapidly subsided. In this man's right elbow-joint and knee, the periostitis was accompanied by some arthritic inflammation, which also went away with the other symptoms; but, while it continued, he kept the affected leg and arm flexed, as the most agreeable position. What resulted from this? During the time the limbs remained flexed, the flexor muscles underwent a peculiar change, they became stiff and rigid, and this, I wish you to remark, independent of all inflammation, so that when the inflammation of the joint had disappeared, the man was unable to extend his arm. On making an examination, I found the flexor muscles contracted and extremely rigid. I commenced by moving the fore-arm slowly towards extension a little, and then back again to extreme flexion; this I repeated, increasing the degree of extension, and, after fourteen or fifteen such movements, I was able to extend the arm completely. The same thing was done to the knee. Now, what is this affection? Let us see if we can understand it. I believe I have pointed out this circumstance before, when speaking on paralysis. There was a man in this hospital, who had hemiplegia, the deltoid of one side was affected, and unable to raise the arm, the pectoral muscle then became contracted, and remained in a state of permanent rigidity; and, supposing this man recovered the power of the other muscles of the shoulder, he could not use his arm from this condition of the pectoral muscles. Another person, who had bed sores on his back and loins, and was obliged to lie on his face for a considerable time, with his limbs flexed, became quite contracted on his recovery. Now this is not inflammation of either muscles or joints, but an effect of the same position long continued, and arises from the length of time the muscles have remained in a contracted state. It very closely resembles the rigidity which is seen after death. You saw that, after I had several times extended this man's arm, and overcame the resistance of the muscles, they became comparatively soft and flexible. The same thing occurs after death. I expect the limb in this case will become perfectly soft and flexible;

this is, however, matter for observation. The treatment adopted perfectly restored the flexibility and natural power of the muscles in about a fortnight. You perceive this is a muscular affection without inflammation, that it frequently occurs in paralysis, and that it is the reason why paralytic limbs, on some occasions, never regain their power of motion, though the muscles which have been paralysed recover a degree of tone. The means we have used are, gradually increased extension, the application of a splint along the limbs to keep them extended, changing this position twice a day, and at each change of position exercising the limb in the manner described. We intend also to rub in half a dram of camphorated mercurial ointment, combined with a little of the extract of belladonna, over the affected muscles twice a day, and though I cannot confidently predict a cure, still I will venture to say, that our treatment is likely to be attended with success.

Respecting the local application of mercury, I have one remark to make. You do not forget the man in the upper ward, who had periostitis affecting the scalp. This disease was very obscure in its symptoms, and was accompanied by very severe pain and irritation, so as to deprive him entirely of rest. It was hard to make out what it was; we however ascertained its nature, and decided that salivation would cure it, and this was the case; the man got considerably better as soon as we had made his mouth sore, but still some pain remained: what did I do? I ordered mercurial ointment to be diligently rubbed to the seat of the pain; the very night it was done, the man got relief. I cannot explain this; but it appears to be a proof, that the opinion of the older physicians on the utility of mercury, locally applied, is well grounded. You know it has been lately shown, that one of the best applications we can make to a swelled testicle is mercurial ointment. In a case of violent peritonitis, where we had leeched, blistered, and salivated, you have seen me order a mercurial dressing to the whole of the blistered surface, and you remember I stated, that I expected much advantage from it. When, therefore, you have cured a disease by mercury, and there happens to be a partial recurrence of its symptoms, you will hold this treatment in memory, and have recourse to it.

One of the young gentlemen attending here has asked me how I would treat an acute attack of piles. I will communicate whatever information I possess on this subject, and am always happy in answering any inquiries connected with your professional pursuits. Of course I cannot enter into a regular disquisition on the subject; this you will find in books, particularly those published on the continent, which follow up the consideration of hæmorrhoids to an enormous extent. Our books here do not give much information on the constitutional symptoms which are attendant on this affection; but in France, Germany, and Italy, a great part of their study is spent in investigating what constitutional diseases are connected with or arise from piles. I shall pass over this, as well as the pathology of the disease, and the manner in which the rectum is affected; neither shall I dwell on their divisions into those which are close to the anus and those high up the rectum, &c. as you find them in various surgical works, and in Cooper's Dictionary, and shall only remark, that the article on piles, in the last-mentioned work, is unworthy of the author. I will proceed to the treatment of an acute attack at once. Suppose you are called to a patient labouring under an attack of piles, who is suffering very great pain, and, indeed, you cannot conceive how violent this may be; he is unable to remain quiet for a single moment; finds it almost impossible to sit down for any time; is perfectly sleepless, and screams with agony if you examine the state of the anus. The expulsion of the fæces causes exquisite torture; you find him exceedingly miserable, and imploring your assistance. On your treatment of such a case much of your credit will depend; and yet I must say that I have seen persons of great professional character fail in procuring prompt relief. Here the tumours are very much inflamed, the mucous membrane highly vascular, and the spasm of the sphincter great; omitting all surgical considerations, what are you to do? Apply a sufficient number of leeches, in the first place. This will give relief; but do not rest satisfied with leeches alone. You will often have occasion to observe that their application has been attended with very little diminution of pain. If you do not see them followed by immediate benefit, make your patient sit over the steam of hot water, poured into a close stool, for twenty minutes or half an hour, and make him repeat this five or six times a day. As soon as he rises from the close stool, and before he lies down, apply a warm bread and milk poultice to the anus. You cannot conceive how rapidly and effectually this constant stuping and poulticing will relieve an acute attack. You should, in the mean time, give such medicines as will open the bowels, procure fluid stools, and diminish the engorgement of the rectum. That which I prescribe is the following electuary:—℞ Elect. sennæ. flor. sulphuris, āā ℥j.; pulv. jalapæ, ℥j.; balsami copaibæ, ℥ss.; pulv. zingiberis, ℥ss.; supertart. potassæ, ℥ss.; syrupi zingiberis, q. s. ut fiat electuarium. Of this a teaspoonful is to be taken night and morning; sulphur heats and determines to the skin; supertrate of potass produces large watery discharges, and tempers the heat of the sulphur; jalap quickens the purgative action, and copaiba exercises a powerful influence on the mucous surface of the intestines. We have an opportunity at present of watching the effect of the latter remedy in the case of a man to whom we are giving sulphur and balsam copaibæ, in disease of the mucous membrane of the lungs.

This electuary opens the bowels, relieves the congestion of the mucous membrane, and determines to the skin and kidneys. With the aid of this, leeching, warm stupes, and poultices, you will quickly relieve an acute attack of piles; and you may then have recourse to an astringent lotion, we will say one composed of liquor plumbi subacetat. dilutus, six ounces; spirit of rosemary, and tincture of opium, of each an ounce. This is to be applied five or six times a day, and has a very good effect in removing the relaxed state of the rectum. I have seen cases treated in this way with marked success by Dr. Brereton, to whom I am indebted for this efficient treatment. I always endeavour to collect as much information as possible, and shall always feel happy in acknowledging the source whence it is derived. I trust I have now answered the question put to me by one of the pupils to his satisfaction, and I hope the observations I have made will be found available in practice.

Let me next direct your attention to the case of a man above stairs, who had such a complication of affections that it is quite impossible to give his disease a name. He is, in fact, a kind of synopsis of the phlegmasiæ. You have seen him, gentlemen, in one of the upper wards, a careless, idle, drunken vagabond, but possessed of a constitution naturally good. He had, within the last few days, delirium tremens, he had herpetic eruption on his face, he had violent bronchitis, severe pneumonia, inflammation of the mucous membrane of the stomach and bowels, inflammation and enlargement of the liver. Here was a complication of diseases extremely hard to treat. Such a complication exemplifies the advantage to be derived from general treatment. From an attentive consideration of the manner in which they arose, we were enabled to treat in a proper manner and overcome those diseases. In the first place, this man was a person of intemperate habits; he had walked about the city for two days and two nights in a state of drunkenness, exposed to rain and cold; the inflammations by which he was attacked set in simultaneously, or at least, we cannot ascertain their date. In the mean time, in consequence of the feverish state of the system, he naturally got delirium tremens. Now, you recollect I have mentioned, on a former occasion, that if a man of intemperate habits gets any shock of the nervous system, he is likely to get delirium tremens. Here was a case to require accurate powers of diagnosis. It might have been the delirium of fever, or of gastritis, or of bronchitis, or of drinking. You are aware that gastritis, and fever, and bronchitis, will give rise to delirium, and that it may attend typhus without inflammation of the brain or engorgement of the vascular system; but in this man's case, when we connected the disease with his habits of intemperance, and looked to the history of the case, and observed that there was nothing about the head to account for his symptoms, and from his answering rationally when asked a question, we were convinced that it was delirium tremens. You know that there are instances of delirium from bronchitis, and it is an old opinion that this arises from the blood passing to the brain in a state not sufficiently aerated, and the same thing is adduced as the cause of pain in the head. But you know that in cholera, where the blood is scarcely aerated at all, there is very little pain in the head, and the intellect remains unaffected. Some late experiments, as those of Edwards, Dr. Marshall Hall, and those which have been made two or three years ago in Edinburgh, by Dr. Knox, seem to oppose this theory of the noxious influence of blood not properly aerated. I think that it arises rather from engorgement, as in such cases the face is generally congested, and the lips purple, and that this affection originates rather in congestion than in a venous state of the blood sent to the brain. The reason which induces me to speak of this influence of venous blood, is because there are certain cases of paralysis from the action of cold on the lower extremities, which may produce a permanent asphyxia of the parts affected. I knew a man, whose fingers remained of a blue colour for five months, except when he put them into warm water. I regret that I must stop here, and defer what I have further to remark until Saturday.

SOUTH-EASTERN GENERAL DISPENSARY,

GRAND CANAL-STREET, DUBLIN.

[A COURSE of clinical instruction has been commenced at the above institution by the attending medical officers, Drs. MacAdam, Thwaites, Houghton, Benson, and Mr. Smyly. The following lecture, introductory to the course, was delivered by Dr. MacAdam.]

GENTLEMEN,—Before commencing a system of dispensary clinical instruction, it appears to me necessary to direct your attention to the advantages which such institutions afford for acquiring professional knowledge, and also to detail briefly the plan which we propose to adopt during the ensuing winter, in rendering this institution a source of practical information to the medical and surgical student.

This department of medical education has been much neglected, and consequently underrated by the profession, who attach too exclusive importance to hospital attendance, as the only means of acquiring an acquaintance with disease; but this opinion I shall endeavour to prove is an unjust and illiberal prejudice. A numerously attended and well organized dispensary contains all the materials necessary for clinical instruction in the most extensive sense of that term; and besides affording abundant opportunities of observing that class of diseases which are to be met with in the wards of an hospital, presents to the student's notice other

modifications of disease, which hospital arrangements do not in general admit of, but a familiarity with which, nevertheless, is of the greatest importance in preparing the young medical student for the duties of his profession.

I can best illustrate this assertion by describing the mode of operation of our dispensary. The patients are divided into two classes,

1st. Those who are visited at their own houses by the medical officers, and

2d. Those who are seen and prescribed for at the institution.

The visited patients present every variety of severity and complication that disease can assume, and are in their characters perfectly identical with the cases to be seen in a clinical ward. They are attended during the entire course of their illness by the visiting physician, an accurate history is taken of the case, and, should it prove fatal, occasional post-mortem examinations are obtained; thus, at the cost of a little more personal exertion, you will have as abundant opportunities of deriving information from the case, as if it was presented to your attention in an hospital, with this additional advantage, that you frequently see it at its very commencement, before it has been subjected to any medical treatment; you have consequently an opportunity of tracing its progress from the first morbid impression on the system, to the more open development of well marked disease. This is obviously of great importance, both in diagnosis and treatment, and cannot be so often enjoyed in hospitals, as the lower classes seldom seek for admission there until their disease has assumed a serious character, or perhaps until it has been altered from its natural type by improper treatment; nor are opportunities of witnessing aggravated forms of disease few or unfrequent in this institution.

It appears by our register, that of the 5769 patients, who received relief during the year 1831, 1439 were visited at their own houses, a number greater than could have been received into the wards of the largest hospital during the same space of time, and presenting the same variety of disease. It is obvious, that here were materials enough for practical observation, which only required a little personal exertion to enjoy, a habit, the cultivation of which you will find useful in preparing you for the active duties of your profession.

The cases seen at dispensaries consist for the most part of the lightest forms of disease, or of those maladies which, not confining the patient to his bed, are seldom to be seen in hospitals: these cases, though in general less severe in their characters, and not so interesting in a pathological point of view, are, nevertheless, deserving of the closest attention from the student who is anxious to observe disease in its lighter and more evanescent, as well as in its more aggravated and permanent forms, and who is desirous to prepare himself for the routine of private practice; they are, in fact, the kind of cases which the medical man will be most frequently called to attend among the higher orders, and his success in the profession may, it is not improbable, originate from his judicious treatment of such maladies.

The attending patients also exhibit many interesting cases of cutaneous affections, diseases of the eye, the minor surgical diseases, as well as a great variety of the less severe affections of the internal organs.

Having made these few observations on the clinical resources which our institution possesses, I beg leave to direct your attention to the system of instruction we propose to follow. A limited number of pupils will be permitted to attend at the dispensary, and there have an opportunity of witnessing the practice of the attending physician and surgeon, learning the art of compounding medicine under the inspection of the apothecary, and of assisting the surgeon in the management of his cases; so that they will have the same advantages of acquiring dexterity in the manipulations of surgery, and in performing the minor operations, as a dresser in a public hospital. The students will be instructed to take short notes of the cases as they present themselves, on which brief observations will be occasionally made by the attending physician and surgeon, as they happen to exhibit peculiarly interesting or instructive characters, and their reasons for the diagnosis and plan of treatment adopted clearly stated. Another portion of the pupils will, in their turn, accompany the visiting medical officers in their attendance on the more severe cases at the residences of the patients; the attention of each student will be directed more particularly to a few cases at a time (of which he will be expected to take accurate notes), and which, to a certain extent, will be intrusted to his care; after the diagnosis and treatment has been determined on by the regular attendant, the pupil will then be allowed to carry this plan into effect, to visit the patient by himself, and report on his state, after which the patient will be again seen by the medical officers and pupil together, as soon and as often as the urgency of the case may require.

In addition to the colloquial observations which the physician and surgeon will daily make on the general run of cases, regular clinical lectures will be given twice a-week on the most important or frequent diseases which occur at the institution, when the more interesting cases will be detailed, the diagnosis, prognosis, and plan of treatment clearly stated, and as much of the general history of the disease, under consideration, entered into as may be necessary to elucidate the application of the general principles of medicine to practical purposes, and also to exhibit the other varieties which the disease may assume, by which means each lecture will combine, in some degree, the advantages of a clinical and general history of the affection to which our attention may be directed. Now, it appears to us, that there are two classes of medical students to which our plan of instruction would

be peculiarly useful. The junior, who is commencing the study of the practical part of his profession, and the young physician, or surgeon, who, having nearly completed his medical education, expects soon to be thrown, for the first time, on his own resources, and be called on to apply that information, which he has acquired during his medical studies, to practical purposes.

To the junior student, our plan presents the advantage of enabling him to observe diseases in the forms in which they are presented by nature, without confining his attention exclusively to any artificial selection of cases. He will have an opportunity of witnessing them in their first stages and lighter forms, as well as in their more advanced periods and aggravated degrees, and consequently be better enabled to judge of the comparative severity and danger of any individual case, form a more correct prognosis as to the result, and adopt more accurate data for proportioning the treatment to the grade of severity of the affection, than if he had only confined his attention to the more severe cases. We by no means intend to maintain, that this should form altogether a substitute for clinical hospital attendance, but we conceive, that it would afford a valuable preparation for it, and would, in some degree, supply to the student what is wanting in hospital education, where the number of pupils necessarily precludes, in a great measure, that attention to the instruction of individuals to which we propose to direct our efforts. The student thus initiated in the observation of disease would go to the clinical ward better prepared to derive information from the well marked specimens of morbid affection, which are there to be met with, and would be, in some degree, qualified to appreciate the practice of the experienced hospital physician.

To the more advanced student, who has nearly or altogether completed his medical education, such a system presents great and, in some degree, peculiar advantages. We will suppose, that he has already acquired a considerable fund of practical information, but has not yet accustomed his mind to exercise the judgment independent of authority, and probably experiences a considerable degree of timidity and apprehension, when he reflects that he will be, in a short time, perhaps, called on to act on his own resources; he perceives clearly that it is one thing to have an accurate knowledge of general principles, and another to reduce those principles to practice, in the management of the endless variety and combinations of symptoms, which individual cases present; he may probably fear that he shall appear timid and irresolute in his judgment, when he is first called on to manage a case in private practice, and that those feelings may be mistaken by his patient for ignorance or incapacity, and that, consequently, his professional character may thus early receive an injury, which afterwards it may take years to recover. These difficulties, so formidable to the young practitioner, may, in a great measure, be anticipated by that gradual initiation into habits of independent thinking and acting, which our plan of clinical instruction affords. He will have opportunities, in the first instance, of exercising his judgment in the minor detail of practice; if he feels doubt or hesitation on any point, he can have the assistance of a practitioner of more experience than himself; or if he takes a correct and decided view of a case, or plan of treatment, he can have his reliance on his own judgment strengthened by similar means. He will be gradually entrusted with the management of the less severe cases, under the superintendence of the physician or surgeon, according as he is ascertained to be capable of such a confidence. He will, by these means, be enabled to anticipate and surmount the first difficulties in practice, without discredit to himself or injury to his patient; and having laid in a stock of experience previous to his entering on the arduous duties of his profession, he will afterwards feel that confidence in his own resources, when undertaking the management of a case of importance, which will impart a consistency and energy to his treatment which cannot fail to be perceived and appreciated by those who confide their health and lives to his care.

Another source of information afforded by dispensary practice is the opportunity which it gives of observing the influence of epidemic constitutions, and of accustoming the attention to be directed to this as an assistance both in diagnosis and treatment. The medical practitioner should always be on the watch to discover what the reigning epidemic is, and should thoroughly investigate its nature before he adopts any general principles to guide its treatment. He should be aware that co-existing diseases, though, under ordinary circumstances, totally different, partake of this influence, assume some of its characters, and even, in many instances, merge into it altogether. When this cause exists, anomalous features will sometimes appear in the commencement or course of other affections; and even persons in apparent health will often complain of certain morbid feelings which, however light in degree, still partake of the character of the reigning malady. We have had striking examples of the influence of this cause during the late visitation of cholera in this city. When it had obtained its *acmé*, indeed, at one time it seemed to absorb all other diseases; but when the common maladies did appear, they presented, in many instances, unusual symptoms, and exhibited some of the features of the prevailing epidemic. I have seen cases of scarlatina commence with vomiting and purging; and the same symptoms occur in persons affected with dropsy. Gastric irritation and diarrhœa were frequent, either simple or combined with other affections. Sharp neuralgic pains in various parts of the body, and severe attacks of cramp, particularly at night, became common to a degree

never before noticed in our dispensary practice; and many persons complained of uneasy sensations in the stomach and bowels. The same epidemic influence I noticed a few years ago, when gastric fever was prevailing in this city; numerous patients affected with bronchitis, rheumatism, and other diseases, complained of pain and soreness on pressure of the epigastrium, and other symptoms not usually connected with the more prominent disease with which they were afflicted, but presenting some of the characters of the reigning fever.

The co-existence of these various affections would have been perfectly inexplicable to a person unacquainted with the presence of a common cause from which they originated. This subject attracted the attention of Sydenham, "who conceived it to arise from certain changes in the constitution of the inhabitants of a country, whether produced by the nature of the seasons, the exhalations from the ground, food, or by moral causes, or by a combination of all these important influences, which, though they act in a manner hitherto unexplained, give a stamp to epidemics, and not only affect the great current disease, but also those concurrent diseases which specifically differ from it, while they retain towards it a certain generic affinity." The same illustrious physician also tells us "that he is convinced, from numerous careful observations, that the same method which cures in the middle of the year may possibly prove destructive at the conclusion of it; and that, when he had once happily fallen upon a genuine method of treating any species of fever suitably to its nature, he always proved successful, till that species became extinct and a new one arose, when he was again doubtful how to proceed; and, notwithstanding the utmost caution, could scarce ever preserve his first patients from danger, till he had thoroughly investigated the nature of the distemper." It is obvious, from these considerations, that this subject deserves very particular attention, and can only be fully understood by such an extensive range of observation both of the lighter and severer forms of disease as a dispensary affords.

Nor are these the only benefits which the more advanced pupil will derive from dispensary attendance, and from visiting the sick poor at their own houses; he will, by these means, become acquainted with the habits, characters, and prevailing maladies of the indigent classes of society, and acquire experience in that moral as well as medical management so necessary, in many cases, where the mind as well as the body is enfeebled by disease. It will impart to him tact in combating their prejudices and ignorance, while the best feelings of his heart are exercised and improved in relieving their bodily sufferings. He will thus be better prepared, both morally and professionally, for the efficient discharge of his duty as medical officer to charitable institutions, whenever it may be his lot, at a future period, to undertake such an office.

It affords us some encouragement in the attempt to establish a dispensary clinique in Dublin, that it is not without ample precedent in other medical schools. We are informed by Dr. Clarke, in his Observations on Clinical Medicine, that this plan of instruction is very general all over Germany, their Polyclinique, or ambulatory clinique, corresponding essentially with the system we now present to your attention. "At some of the universities *there, it is the only source of practical information the student has access to.*" The following is the method there adopted:— "The pupil is at first exercised in examining the patients that come to the clinic, under the observation of the professor, and is required to state the nature of the disease and its treatment. The treatment being agreed upon, the pupil writes the prescription, which is examined, modified if necessary, and signed by the professor. After a time, the pupil is entrusted with the care of the out-patients. He is required to draw up an accurate history of each disease under his care, which is submitted to the inspection of the professor, as are also the reports of the progress and treatment of the case.

"Moreover, when he finds himself in difficulty, or the case appears to the professor to require it, the clinical assistant accompanies him to see the patient, and assists him with his advice. In urgent cases, the professor also visits the patient; and when the disease proves fatal, he superintends the examination of the body, a practice to which, on the Continent, objections are very rarely made." The learned and ingenious editor of the London Medico-Chirurgical Review informs us, "That he is acquainted with some officers of public dispensaries in the metropolis who closely approximate to the foregoing plan, and who consequently are of more real utility to the pupil than any officer of a public hospital can possibly be under existing regulations."

Having thus endeavoured to prove the value of dispensary attendance, as a means of acquiring practical knowledge, it appears to me that I cannot better illustrate what I have been considering, than by taking a cursory view of a few of the more interesting cases which came under my observation during the last month, when it became my duty to visit the sick poor of that portion of the dispensary district which we have designated the *lower division*, and which comprises the entire parish of St. Mark, included between Denzille-street and Wentworth-place on the one side, and the river on the other, containing a population of from fourteen to sixteen thousand inhabitants, a large proportion of which consists of the very poorest classes of society, consequently this division always contains the greatest proportion of our visited patients; an enumeration of the cases which it has presented in one month, therefore, exhibits a fair specimen of the clinical resources of the institution.

During the month of October, 62 medical

cases came under my care; a number considerably less than what is afforded by this division during any winter month; but, nevertheless, presenting 24 species of disease. The following were the affections which were met with:—

Hydrocephalus	Erysipelas
Convulsions	Purpura
Rheumatism	Varicella
Scarlatina	Dysentery
Dropsy	Peritonitis
Headache	Phthisis
Gastric fever	Diarrhœa
Continued fever	Cholera
Pulmonary Apoplexy	Colic
Menorrhagia	Gastrodynia
Pertussis	Pyrosis
Hysteria	Bronchitis.

I shall proceed to notice a few of the more interesting cases which occurred, and to make some general observations on the most striking points of pathology, or practice, which they illustrated; but it would be inconsistent with the object of an introductory lecture to enter into any very minute detail.

During the month of October, two cases of hydrocephalus came under my observation, one of which terminated fatally, the other recovered. As the symptoms and post-mortem appearances of the former case were highly characteristic of the disease, I shall give you its history, as I took it down at the bed-side of the patient.

Anne B. ætat. 10 years, of rather a florid complexion and spare habit, complains of a severe pain in the forehead, and general soreness all over the body; pulse 61, full; temperature not much augmented; occasional frowning, and some intolerance of light; tongue a little whitish; no appetite; no vomiting; one dejection in the 24 hours; seems very irritable and impatient at being disturbed. There is at present no other very obvious symptom; she seems heavy and stupid, and prefers lying in bed. Her present illness commenced about a week ago, with head-ache and occasional slight abdominal pain; the latter symptom, however, has not continued constant, nor been at any time severe, and she at present says that she feels none. Her mother states, that she has been subject to head-ache for a year previous to the present attack, and occasionally complained of a soreness in the situation of the anterior fontanelle. She has frequently been observed to pass ascarides, and has occasionally attacks of pain in her bowels. At the commencement of her present illness she complained much of chilliness, and had distinct fits of rigors.

None of the family have died of hydrocephalus previous to my visit. Leeches had been applied to her temples, and she had got some purgative medicines. On the next day (the second) she appeared much better; she had taken some strong purgative powders, which I had ordered, and had passed a very large lumbricus with much relief, though she still complains of pain in the head, and also in the abdomen, which is tender on pressure.

On the third, she was heavy and stupid; had a fit of insensibility the night previous; pulse 90; vomited a little; bowels affected twice.

On the fourth, she appeared comatose, with a circumscribed flush on each cheek; dilated pupils, which, however, contract a little on exposure to a strong light; left arm paralytic, and left leg partially so; pulse slow; tongue white; no convulsions have as yet appeared; seemed to experience some temporary relief from leeches, which were yesterday applied to her temples.

On the evening of this day, convulsions first attacked her, affecting the right arm and leg; they were preceded by a fit of insensibility.

On the fifth, the left arm and leg, which the day before appeared partially paralytic, were affected with a tonic spasm, and the fingers hooked by a permanent contraction of their flexor muscles; the jaws were firmly clenched, and she foamed at the mouth and refused to swallow; pulse quick and small; two dejections of a jelly-like appearance; pupils dilated, but contract on exposure to a strong light.

She continued, during the sixth, in a comatose state, with dilated pupils, idiotic expression of countenance, picking of the bedclothes, and low muttering delirium, the lower extremities being alternately rigid and convulsed; and, at eleven o'clock A.M. of the seventh, death put an end to her sufferings.

I have not entered into any detail of the treatment recommended in this case, as owing to the stupidity and carelessness of the attendants, my directions were either altogether neglected or very inefficiently followed. Repeated leeching, calomel, and antimonial powder; mercurial inunction, blisters to the occiput, shaving the head, and cold application to the scalp, with other means, were ordered, but few of them were used. We obtained an examination of the body forty-eight hours after death, in which I was assisted by two of my colleagues, Dr. Benson and Dr. Thwaites.

On raising the skull-cap, the vessels of the dura mater were found loaded with blood; the surface of the brain appeared in a highly congested state, and all the small vessels minutely injected. The cerebral substance, when sliced, appeared preternaturally vascular; serum was effused between the arachnoid and pia mater, at the base of the brain, especially at the fissure of Silvius, and in the neighbourhood of the circle of Willis. All the ventricles were found filled with a clear serous fluid, amounting to about three ounces in quantity. On opening the abdomen, the liver appeared healthy; the mucous membrane of the stomach was more vascular than natural. The greater part of the tract of the small intestines presented nothing remarkable, except a considerable quantity of fluid fæces; the mucous membrane of all the large intestines,

and the lower part of the small, exhibited a deep red colour, presenting evident marks of intense inflammation. They contained a large quantity of fluid and some solid fæces; no worms were discovered in any part of the intestines.

The diagnosis in this case, from almost the very commencement, was sufficiently evident. The patient being subject to worms, together with the expulsion of a large lumbricus, early in the attendance, might have excited a suspicion that the head-ache, and other symptoms, were caused by sympathetic irritation, having its source in the intestines; but the speedy development of the more peculiar symptoms of hydrocephalus, such as the dilated pupil, coma, convulsions, and paralysis, were sufficiently decisive of the nature of the disease.

This case presents some circumstances worthy of note:—

1st. The long existence of cerebral and abdominal irritation previous to the attack of the disease; the latter probably causing, or, at least, aggravating the former by sympathy.

2dly. The almost total absence of vomiting, a symptom so very generally present in hydrocephalus, and which was the more singular in this case as active intestinal inflammation co-existed with the cerebral affection.

3dly. The inflammation of the mucous membrane being present, without being marked by any very characteristic symptom.

And, lastly, the facility with which the bowels were acted on by purgatives, notwithstanding which, a large quantity of fæces were retained in the intestines. From these circumstances a few practical conclusions of some value may be deduced.

1st. The necessity that exists of closely watching and early counteracting any long continued irritation in the brain, or abdominal viscera; and of keeping in recollection the danger there exists of hydrocephalus being induced by such causes, especially in children, or others predisposed to the disease; and the importance of early combating, by active depletion, the first distinct appearances of cerebral excitement in such cases.

2dly. The error which may arise, in diagnosis, from attaching too much importance to the presence or absence of any individual symptom, however characteristic it may be thought of the disease, a mistake which the student, who derives his information too exclusively from books, will be very liable to make; for example, Dr. Golis asserts, that vomiting occurs in every case of hydrocephalus, and Dr. Cheyne mentions irritability of the stomach as a very striking and constant symptom; though this is undoubtedly the case in by far the largest proportion of cases, yet our patient presented an exception to the general rule.

3rdly. The importance of closely attending to the state of the abdominal viscera in hydrocephalus, as we see that active inflammation may there co-exist with cerebral disease, and probably contribute much to aggravate its severity by sympathy.

And, lastly, the necessity of attending to the appearance of the discharges from the bowels, which, in this case, I had not an opportunity of inspecting, but which, probably, would have indicated fæcal accumulation; and have made me more particular in unloading the bowels by the administration of suitable purgatives.

The next case presented a more satisfactory result; it might, perhaps, be thought by some, not to be an example of hydrocephalus; however, in my opinion, it exhibited tolerably distinct symptoms of the incipient stages, and would probably have terminated in the same melancholy result as the case just recited, had its course not been arrested by active treatment.

The patient, Eliza S. æt. five years, previously healthy, took ill suddenly two days before I saw her, with pain in the forehead, heat of skin, heaviness and stupor, no vomiting, sickness, or abdominal pain. She was in this state when I first visited her; had one natural dejection the last 24 hours; pulse 132; tongue a little whitish, not coated; papillæ red; considerable thirst; seems very sleepy and listless; no appearance of exacerbation, or remission in the symptoms at any period of the day; bled a good deal from the nose this morning. Her mother states, that she lost two children by hydrocephalus, each aged four months. I had this patient immediately bled to six ounces, and ordered her powders of jalap, calomel, and scammony, to be repeated every three hours, till a full cathartic effect was obtained. The next day I found her much relieved, quite free from head-ache, and more lively; heat of surface diminished; pulse 100, soft; bowels well opened; blood cupped, but not buffed. Leeches were directed to be applied to the temples if the pain returned; the hair to be cropped, and a cold lotion to be constantly applied to the forehead and temples; the purgative powders to be continued. The following day I found her still free from headache, but complaining much of abdominal pain; had four dejections; skin cool; tongue clean; some thirst. I directed small doses of calomel and antimonial powders to be taken, which were continued some days; soon after which I had the satisfaction of seeing her quite free from all complaint.

Now, I think, I am justified in considering this as a case of at least excitement of the brain, tending towards hydrocephalus, for the following reasons:—

1st. The existence of a family predisposition.

2dly. The existence of pyrexia, with pain in the head, heaviness, and stupor, without any of the characteristic symptoms of infantile remittent. There were no remissions, no abdominal pain or irritation—except what appeared after the exhibition of active pur-

gatives—no coating on the tongue, and the medicines employed would probably have exasperated any gastro-intestinal irritation if such had been the primary disease.

The result of this case illustrates the great value of early and free venesection, whenever we have reason to apprehend a tendency to hydrocephalus, a point which cannot be too strongly impressed on the mind of the medical practitioner, as, until lately, prejudices existed against the free employment of the lancet in the diseases of children.

DR. FERGUSSON ON YELLOW FEVER.

Dr. Fergusson, of Windsor, Inspector-General of Hospitals, has, in an able and luminous essay on cholera, made the following observations, which, coming from such an authority, deserve attention :—

"Within the last thirty years, yellow fever has, at least four times, invaded the fortress of Gibraltar; during which time also, the population of its over-crowded town has more than quadrupled, presenting as fair a field, for the generation within, or reception from without, of imported pestilence as can well be imagined; yet plague, the truest of all contagions, typhus fever, and other infectious diseases, have never prevailed, as far as I know, amongst them. The plague of the Levant has not been there, I believe, for 150 years; yet Gibraltar, the free port of the Mediterranean, open to every flag, stands directly in the course of the only maritime outlet, from its abode and birth-place in the east, being in fact, to use the language of the road, the house of call for the commerce of all nations coming from the upper Mediterranean. Now, can there be a more obvious inference from all this, than that the plague, being a true contagion, may be kept off without difficulty, by ordinary quarantine precautions; but the other being an endemic malarious disease, generated during particular seasons, within the garrison itself, and the offspring of its own soil, is altogether beyond their control. The malarious or marsh poison, which in our colder latitudes produces common ague, in the warmer, remittent fever, and in unfavourable southern localities of Europe (such as those of crowded towns, where the heat has been steadily for some time of an intertropical degree), true yellow fever, which is no more than the highest grade of malarious disease; but this has never occurred in European towns, unless during the driest seasons—seasons actually blighted by drought, when hot withering land-winds have destroyed surface vegetation, and, as in the locality of Gibraltar, have left the lowlying, becalmed, and leeward town to corrupt, without perflation or ventilation, amidst its own accumulated exhalations. I know not how I can better illustrate the situation of Gibraltar in these pestiferous seasons, than by a quotation from a report of my own on the Island of Guadaloupe, in the year 1816, which, though written without any possible reference to the question at issue, has become more apposite than anything else I could advance :—'All regular currents of wind have the effect of dispersing malaria; when this purifying influence is withheld, either through the circumstances of season, or when it cannot be made to sweep the land on account of the intervention of high hills, the consequences are most fatal. The leeward shores of Guadaloupe, for a course of nearly thirty miles, under the shelter of a very steep ridge of volcanic mountains, never felt the sea-breeze, nor any breeze but the night land-wind from the mountains; and though the soil, which I have often examined, is a remarkably open, dry and pure one, being mostly sand and gravel, altogether, and positively without marsh, in the most dangerous places, it is inconceivably pestiferous throughout the whole tract, and in no place more so than the bare sandy beach near the high-water mark. The coloured people alone ever venture to inhabit it; and when they see strangers tarrying on the shore after nightfall, they never fail to warn them of their danger. The same remark holds good in regard to the greater part of the leeward

coasts of Martinique, and the leeward alluvial bases and recesses * of hills, in whatever port of the torrid zone they may be placed, with the exception, probably, of the immediate sites of towns, where the pavements prevent the rain-water being absorbed into the soil, and hold it up to speedy evaporation.' Now, conceive a populous crowded town placed in this situation, and you have exactly what Gibraltar, and the other towns of Spain and North America, liable to yellow fever, must become in such seasons as I have above described, only, that as they grow more populous and crowded, the danger must be greater, and its visitations more frequent, unless the internal health police be made to keep pace in improvement with the increasing population.

"Now, in the name of injured commerce—of the deluded people of England—of medical science—of truth and humanity—what occasion can there be to institute an expensive quarantine against such a state of things as this, which can only be mitigated by domestic health police; or why conjure up the unreal phantom of an imported plague, to delude the unhappy sufferers, as much in regard to the true nature of the disease, as to the measures best calculated for their own preservation; when it must be evident that the pestilence has sprung from amidst themselves, and that had it been an external contagion in any degree, the ordinary quarantine, as in case of the plague, would certainly have kept it off; but the question of the contagion of yellow fever, so important to commerce and humanity, and which, like the cholera, has more than once been used to alarm the coasts of England, demands yet further investigation.

"For nearly forty years have the medical departments of our army and navy been furnished with evidence, from beyond the Atlantic, that this disease possessed no contagious property whatever. These proofs now lie recorded by hundreds in their respective offices; and I take it upon me to say, they will not be found contradicted by more than one out of a hundred, amongst all the reports from the West Indies, which is as much the birth-place of the yellow fever, as Egypt is of the plague: yet, in the face of such a mass of evidence, as great or greater, probably, than ever was accumulated upon any medical question, has our government been deluded, to vex commerce with unnecessary restraints, to inflict needless cruelties upon commercial communities, (for what cruelty can be greater than after destroying their means of subsistence by quarantine laws, to pen them up in a den of pestilence, there to perish without escape, amidst their own malarious poison?) and to burden the country with the costs of expensive quarantine establishments. Surely if these departments had done their duty, or will now do it, in so far as to furnish our rulers with an abstract of that evidence, with or without their own opinions, for opinions are as dust in the balance when put in competition with recorded facts, it must be impossible that the delusion could be suffered to endure for another year; or should they unluckily fail thereby to produce conviction on government, they can refer to the records of commerce, and of our transport departments, which will show, if inquiry be made, that no ship, however deeply infected before she left the port (and all ships were uniformly so infected wherever the pestilence raged), ever yet produced, or was able to carry a case of yellow fever beyond the boundaries of the tropics, on the homeward voyage, and that therefore the stories of conveying it beyond seas to Gibraltar, must have been absolutely chimerical. It would, indeed, have been a work of supererogation, little called for, for I

"* The leeward niches and recesses of hills, however dry and rocky, become, in these seasons of drought, absolute dens of malaria; this will be found proven in my reports, more especially of the islands of Dominique and Trinidad, which may be seen at the Army Medical Board Office."

think I have fully shown that Gibraltar must be abundantly qualified to manufacture yellow fever for herself.

"No less chimerical will be the attempt to shut out cholera morbus from our shores by quarantine laws, because, throughout Europe, ready prepared, alarmed, and in arms against it, they have succeeded nowhere; whereas, had it been a true contagion, and nothing else, they must, with ordinary care, have succeeded everywhere; the disease, as if in mockery, broke through the cordons of armed men, sweeping over the walls of fortified towns, and following its course, even across seas, to the shores of Britain; and yet we are still pretending to oppose it with these foiled weapons.

"We are indeed told, by authority, that its appearance in towns has always been coincident with the arrival of barges from inland, or by ships from the sea; but if it be not shown at the same time that the crews of these barges had been infected with the disease, or if, as at Sunderland, no person on board the ships can be identified as having introduced it, while we know that the disease actually was there two months before, we may well ask at what time of the year barges and ships do not arrive in a commercial seaport, or where an epidemic disease, during pestiferous seasons could be more likely to break out than where the most likely subjects are thrown into the most likely places for its explosion, such as newly arrived sailors in an unwholesome seaport, where the licence of the shore, or the despondency of quarantine imprisonment, must equally dispose them to become its victims.—Besides, what kind of quarantine can we possibly establish with the smallest chance of being successful against men who have not got, and never had the disease. Merchandise has been declared incapable of conveying the infection*, and are we to interdict the hulls and rigging of vessels bearing healthy crews, or are we to shut out ports at once against all commerce with the North of Europe, and would this prove successful if we did? a reference to a familiar epidemic will I think at once answer this question.

"It is only three months ago that the epidemic catarrh or influenza spread throughout the land, travelling like the cholera in India, when it went up the monsoon, without regard to the east wind; and what could be more likely than the blighting drying process of such a wind, in either the one or the other case, to prepare the body for falling under the influence of whatever disease might be afloat in the atmosphere. In general this passing disease can be distinctly traced, as having affected our continental neighbours on the other side of the Channel before ourselves: now can it be supposed that any quarantine could have prevented its first invasion, or arrested its farther progress amongst us. How ridiculous would have been the attempt; and yet with the experience of all Europe before us, have we been enacting that very part with the cholera morbus: but further, the same authority which calls for the establishment of quarantine in our ports, tells us that neither proximity nor contact with the sick* is requisite for the production of the disease: now can anything further be wanting beyond this admission, to prove that it must be an epidemic atmospherical poison, and not a personal contagion, and that, under such circumstances, the establishment of quarantine against persons and goods, would manifestly be absurd and uncalled for. So fully satisfied has the Austrian government been made by experience, of the futility and cruelty of such quarantines, that the Emperor apologizes to his subjects for having inflicted them. The King of Prussia makes a similar *amende*, and the Emperor of Russia, convinced by the same experience, abolished or greatly relaxed his quarantines several months ago.

"I am by no means prepared to

* "Vide Russian Ukase.

* "Vide Reports from Russia.

assert, because I cannot possibly know to the contrary, although from the analogy of other disease I do not believe it, that the cholera morbus may not become contagious under certain conditions of the atmosphere, but these cannot be made subject to quarantine laws, and I am fully prepared to acknowledge, that as in the case of other epidemics, it may be made contagious through defective police; but independent of these, it possesses other powers and qualities of self-diffusion, which we can neither understand nor control. Such, however, is not the case with that other phantom of our quarantine laws—the yellow fever—which can never, under any circumstances of atmosphere, without the aid of the last be made a contagious disease. I speak thus decisively from my experience of its character, as one of the survivors of the St. Domingo war, where, in a period of little more than four years, nearly 700 British commissioned officers, and 30,000 men were swept away by its virulence; as also from subsequent experience, after an interval of 20 years, when in the course of time and service, I became principal medical officer of the windward and leeward colonies, and in that capacity, surveyed and reported upon the whole of these transatlantic possessions.

It was my intention, in these times of panic, to designate to my conntrymen, in as far as I could, the true essential intrinsic contagions of the British Isles (for such there are, and terrible ones too) which prevail under all circumstances of season, atmosphere, and locality, as contradistinguished from the factitious ones of our own creating, and the imaginary or false, which often spread epidemically (for there may be an epidemic as well as contagious current of disease)* although they possess no contagious property whatever; as well as the foreign contagions, which, if we relax in due precaution, may, at any time be introduced amongst us; but the unreasonable length of this letter warns me to stop."

* "For as long as men congregate together, and every supposable degree of communication must of necessity be constantly taking place amongst them, to distinguish a spreading epidemic from a contagious disease when it first breaks out, must obviously be a matter of impossibility; and upon this point the contagionists and their antagonists may rail for ever,—the one will see nothing but contagion, whether in the dead or the living body, and the other will refer every fresh case to atmospheric or terrestrial influence, and both with as much apparent reason as they possibly could desire: but the candid impartial investigator, who waits to observe the course of the disease before coming to a conclusion, and refers to the facts furnished in the cholera hospitals of Warsaw and the sick quarters of Sunderland, will never be deceived in regard to its real nature, nor propagate the appalling belief that cholera morbus can be made a transportable and transmissible contagion.

REPLY TO A "CHEMIST."—DEFENCE OF APPRENTICES.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—Considering that your pages are impartially open to all classes of your readers, I did not hesitate, on reading the letter of "A Chemist," in your last Journal, to attempt an answer to the insinuations there thrown out against that large community, the apprentices of general practitioners. He begins, in the fulmination of his wrath, by denouncing us as giddy and unthinking; but having, it seems, some little perception, and fearing the good sense of your readers would not admit such a vile imputation, implied wholly without cause, he finishes by vindicating the well-known cheapness of his brethren: but what is that occasioned by? In the first place, he allows himself *adulteration* to be one cause, and a moment's reflection will give the other. Is th immense sacrifice of time, and money expended, by a person who has received a medical education, to be compared with that of *a sober man who has arrived at years of discretion!* viz. old enough to guess at docked Latin, who has most likely gained his knowledge by sweeping the shop

for those apprentices he calumniates. Certainly, if people will be fools enough to risk their lives by sending prescriptions to chemists, it is their own fault; but that is no reason you should not expose their fraudulent practices. The apprentice, in dispensing medicines for his master, is interested not by cogitating how much he shall demand for it, but by the knowledge that his own welfare is compounded with that of his master's, and thus is deeply interested in the exact fulfilment of his business. Having received an education to fit him for his profession, he is zealous in performing the duties attached to it, not for gain, but to obtain a competent knowledge of his art, unlike those "arrived at years of discretion," who care not how the adulterated stuff they have compounded for their unfortunate customers may affect the reputation of the physician, or the life of the patient. If, gentlemen, I have not coveted too much space in your valuable columns, by the insertion of this, my humble endeavour to vindicate the character of apprentices from approbium, you will greatly oblige—

AN APPRENTICE.

THE

London Medical & Surgical Journal.

Saturday, February 9, 1833.

THE APOTHECARIES' COMPANY.

"I think I hear a little bird, who sings
The people by and by will be the stronger."
BYRON.

THE members of this body, by well-managed legal ingenuity, succeeded in obtaining their act in 1815. They took advantage of the lethargy of the Colleges of Physicians and Surgeons, and slily procured powers, which would not have been granted by parliament, had the Colleges offered serious opposition. The legislature never intended to allow apothecaries, or surgeons, the privileges of physicians; but it granted them power to regulate the course of education necessary for those whose duty it was to prepare physicians' prescriptions. Under this authority, the apothecaries have gradually encroached upon the College of Physicians, and have latterly thrown off all obedience, by granting their licentiates a testimonial, authorizing them to practise medicine. This is the exclusive privilege of the College of Physicians; but so supine are the rulers of that body, that they submit to the illegal usurpations of their brethren of the pestle and mortar. It is very true, that the apothecary must act as physician, surgeon, and obstetrician among the humbler classes of society, in consequence of their inability to pay the large *honorarium* expected by physicians and surgeons; and this is, as the law justly enacts, highly necessary in those places, if there be any at present, where there is neither physician nor surgeon; but it is impolitic in London, where there is no lack of the ardent representatives of Hippocrates and Podalirius, who are universally excluded from practice, until death has secured the patient, and then a consultation is proposed, to enable the physician or the surgeon, who is in at the death, to share the responsibility, or often to cloak the unpardonable blunders of the former attendant. At present, nearly the whole practice of the healing art is in the hands of apothecaries; among the upper ranks of society they receive the ordinary remuneration of physicians; among the wealthy and middle

classes, they receive no compensation for their attendance, but obtain remuneration by furnishing much more medicine than is necessary. According to this system, the physician and surgeon are unemployed, and deprived of the rights conferred on them by law, while the apothecary is making a trade of the profession, and lowering its dignity in public estimation. The consequence is, that many persons will consult a physician, and procure the necessary medicine at a chemist's or druggist's; and, in the end, will find this the best and most economical mode of obtaining medical aid. Of late, it has been attempted to place general practitioners, not only on an equality with, but above physicians and surgeons; but this will never be sanctioned by the public, because the former sink the profession into a mere trade, by vending drugs, and, therefore, will not be so much respected as those who alone uphold the dignity of the profession. In saying this we by no means intend offence to general practitioners; we simply maintain, that they, by keeping open shops for the sale of medicine, are generally confounded with the uneducated chemist and druggist, and will not receive that respect from the public, which is given to the consulting branches of the profession. Every day's experience must convince the most inattentive observer of the truth of this position. We have ever deplored the condition of the general practitioner, and we always contended, that he should receive remuneration for his services, independently of the sale of medicine. He ought to be paid for his visits, and he may blame the Apothecaries' Company for the state in which he is placed.

The act in favour of this body gives much more power than that relating to pharmacy in Ireland; and neither authorizes fees to apothecaries. Nevertheless, the crown lawyers have interpreted the Dublin Act as empowering the Company of Apothecaries to fix a scale of fees for their licentiates, assistants, and apprentices; and, accordingly, fees are demanded and enforced by the Courts of Law. A master-apothecary is allowed ten shillings a visit within the city of Dublin—a guinea, if called at night; an assistant, five shillings; and an apprentice has a fee for venesection, tooth-drawing, &c. These fees are not demanded unless from the affluent. Now, we are not able to understand the reason why similar or some fees are not allowable in England as well as Ireland, inasmuch as the Apothecaries' Acts in both countries are similar upon this subject. It is also to be remembered, that a leading lawyer, who was concerned for the Hall, when Mr. Hume had inserted a clause in the Act of 1825, to the purport that general practitioners should be entitled to five shillings a visit, was the identical member of the House of Commons who opposed the bill, until this clause was withdrawn. The reason of his acting in this way was, that if general practitioners or apothecaries received fees, they would order less medicine; and therefore the Company of Apothecaries, as wholesale druggists, who

supplied most of them, would suffer; and we really believe that a selfish motive alone prevents them from imitating the example of their Dublin brethren. They require a good and expensive course of education of their candidates; they take legal proceedings against all who disobey; and they afford no protection whatever to those who obtain their qualification. They prescribe a course of education which precludes the sons of general practitioners in the country, of those who have the strongest claims for admission into the profession, but who cannot from the slender means derived from practice, expend so much money as will enable them to procure a proper qualification. But the Company turns a deaf ear; the country practitioners are bad customers; they cannot order a profusion of medicine; and therefore their sons deserve to be excluded; while the low-lived mechanic, who has amassed wealth, may make his son a doctor; and hence the source of the "rag, tag, and bob-tail" description of persons who are now inundating the profession, and who, according to some, are to exterminate physicians and surgeons, though these are generally the sons of gentlemen, who associate with the first men in the land during their four years' residence at universities, and whose general, classical, and medical education is the best that the country affords. We are not among those who think that parentage and birth should exclusively qualify for trades or professions; but we cannot assent to the regulations which enable the wealthy to obtain admission into our profession, to the exclusion of the sons of country practitioners. We applaud the plan for bettering the education of all practitioners of medicine; but we regret that it should be oppressive on those who have the best right to admission into the Faculty.

It is a singular fact, that the country practitioners have received no patronage from the medical press. The reason is sufficiently obvious; they cannot be useful or injurious to the press, and therefore "the powers that be" in the capital are worshipped as the rising constellations. We, however, have likewise supported the interests of provincial practitioners, because we believe them to have as ample opportunities of observing every form of disease as the rest of the profession.

We have often laughed at the manœuvres of the Apothecaries' Hall—at the multiplicity of unintelligible new regulations—at the notes and explanations at the foot of every page, as if the framers of the by-laws were under the influence of narcotics—and all to induce the public press to laud their exertions for the public good, and so forth, when every medical practitioner can see through the flimsy veil that covers corporate monopoly and self-interest.

It is really ludicrous to observe the airs assumed by this body—the annual code of the regulations, each contradicting the other, and so perplexing the poor student, that he cannot comprehend which he is to follow; then the Latin-room, and the surly, saucy, pedagogue whose habit

is to growl at the translations of Celsus and Gregory, as if a candidate has not enough to think on, when about to appear before the Court of Examiners, to have his knowledge of materia medica, and practice of medicine, most severely tested; and, lastly, the insolent and insulting behaviour of some busy-body of a coxcomb, who wishes to embarrass a young gentleman on the commencement of his career, and who avails himself of his unmerited situation to blast the hopes of generous and noble-minded youths on attempting to enter on the theatre of life—these, and other fantastic tricks, are despicable in the estimation of all enlightened members of the profession. Numerous instances have fallen under our own observation, in which the prospects of candidates—nay, their lives—have been endangered by their want of success at the Hall. We do not blame the present Examiners, for, from all we can learn, they are fair and honourable men; but we think they ought to make due allowances for the timidity and nervousness of those whose prospects in life are to be determined by them. Their Latin examination is ill-timed and ill-placed; they should remember, that they suddenly required it of those who entered the profession when it did not exist, and therefore their retrospective legislation is unjust upon the face of it. We have known gentlemen rejected in Latin at the Hall, who were extremely well qualified to treat diseases, but whose medical knowledge was not ascertained at all, because they failed to read classically contracted and ill-written prescriptions, though they could compound them accurately. Our readers are well aware, that we are ardent admirers of classical acquirements; but still we must argue against the sudden legislation, which requires them of persons who had no reason to consider them requisite on their entering the profession.

It will be urged by the Examiners, that the College of Physicians examine in Greek and Latin medical authors before they commence on medicine; but to this we reply, that their candidates are well aware of this fact on commencing their studies, and therefore are not taken by surprise, as many of the candidates at the Hall are. Besides, it is generally understood that those intended for physicians must receive a good classical education, and, consequently, they are prepared for examination in this department of literature. Though we have animadverted on a few of the abuses of the Apothecaries' Company, we are ready to admit that they have greatly improved the education of those who practise their branch of the profession. We trust, however, that the day is not far distant, when a thorough reform in this and the other branches of the medical profession will be effected. We are gratified to observe, that Mr. Hume, that honest and uncompromising legislator, formerly a member of our profession, has now an able and powerful ally in the House of Commons—Dr. Baldwin, the member for Cork—a gentleman of the most liberal politics, and a physician of eminence in his native city, and an enemy to all corporate delinquency. We therefore reasonably expect, that Dr. Baldwin will strenuously advocate the interests of our profession, and display that manliness of character in medical, as he has already done in political reform. We call on him, as a distinguished member of the profession, to support the interests of the whole, and to imitate the excellent example of Dr. Lucas in the Irish House of Commons, in behalf of the faculty of physic. We need not remind him of his solemn promise to maintain and defend the interests of medicine and of mankind; we appeal to him in strong terms, as the only representative of our profession in one of the branches of the imperial legislature of this country. Had there been an English or Scottish physician a Member of Parliament, we should call upon him in similar terms.

ON THE CHANGES WHICH THE POINTS OF THE FINGERS UNDERGO IN PHTHISIS, &c.

HIPPOCRATES remarked that, in those who died of pulmonary consumption, the nails became bent—"phthisitis ungues adunci;" the assertion used to be called in question by many medical authors, but M. Pigeaux, who has directed his attention to this subject, and written a "memoir on the etiology, symptomatology, and the mechanism of the fusiform development of the extremities of the fingers," fully confirms the truth of the aphorism. He examined the hands of 200 phthisical patients and found that 167 of these were provided with "griffes Hippocratiques." Every tubercular patient does not certainly present this phenomenon, but in other diseases of atrophy the proportion is much smaller, not exceeding one in ten; it appears, therefore, that a certain relation may be traced between thoracic maladies and the curving of the nails, although it occurs in other diseases, but certainly not so frequently. In 183 cases of diseases, not tuberculous, but which had produced great emaciation, 17 exhibited the phenomenon of the curving of the nails, in a very remarkable degree; of these 17, nine were cases of organic affections of the heart, four of emphysema, two of asthma and catarrh, and two doubtful. An obvious dyspnœa existed in 13 of these cases, and also in almost every one of the 167 tubercular cases. I have no doubt, that some connexion may be traced between all such maladies as create an impediment to the respiration or circulation, and the appearances of the nails alluded to, or, at least, between the former and the fusiform swelling of the last digital phalanx, with which the curving is generally associated. In 20 of the 167 tubercular cases, the patients had not lost their embonpoint. After many examinations into the cause of these phenomena, I am satisfied that the change in the points of the fingers precedes, and is the cause of, the curvature of the nails. Now this change consists chiefly in an œdematous infiltration of the pulp of these, by which the nail becomes mechanically forced out and forwards, and thus its end is curved round. As a general rule, it may be stated, that the fusiform development of the last phalanx of the fingers, with the curvature of the nails, is generally indicative of the presence of tubercles, or of any derangement of sanguification. If we notice particularly the change of form, we find that the swelling begins at the articulation of the third with the second phalanx—that it increases somewhat towards the root of the nail, which becomes the most projecting part, and then it tapers off to the end of the finger: the thumb and fore-finger are generally affected first. The progress of this affection does not depend so much on the "phases" of tubercular disease, or of organic affections of the heart, as on the influence which these have on the general state of "hematosis" and of respiration. I have observed it to increase, diminish, and even to vanish, with the removal of the cause which had produced it. It is more common in women than in men; it is much more rarely seen in the toe-nails, with the exception of that of the great toe, the swelling of which, and the consequent "growing of whose nail into the quick, often gives rise to much pain and annoyance." To impress his readers with the importance of the above appearances, as symptoms, the author says that he has, by attention to this particular, repeatedly been enabled to foretell the severity and danger of a pulmonary catarrh, of a pneumonia, &c., which were supposed to be of an innocent nature! he, therefore, regards it as a very unfavourable sign; it exists, he says, in six-tenths of consumptive patients, and, on the whole, it is more frequently seen in those who still retain their embonpoint, than in those who are much emaciated. If the above remarks be confirmed by experience, it must be considered as a valuable ad-

junct in guiding our diagnosis. The anatomy of this change will be readily understood from what has been stated above; the nail, separated from the finger, appears very little, or perhaps not at all curved; but when in situ, it is found to be elevated and pushed forwards by the infiltrated pulp *underneath;* the bone is not altered.—*Archives Générales.*

RHINOPLASTIC OPERATION.

A FRENCH soldier, at the battle of Waterloo, had his nose clean cut off by a sabre-wound, the upper lip was also divided, and five of the front teeth, with a portion of the alveolar process of the upper jaw, knocked out; but, hero-like, as all Frenchmen are, he pursued his opponent, an English soldier, and had ample vengeance, we are told. The wounds healed, and for several years he wore an artificial nose of silver, and afterwards one of copper, by both of which he was much annoyed. He was persuaded by a surgeon at Rouen to submit to an operation, which consisted in dissecting a flap from each cheek, and uniting them along the bridge of the nose-to-be. But the deformity was greater than ever. M. Blandin was now consulted; he performed his rhinoplastic operation, by dissecting the flap from the skin of the forehead. The artificial nose united very favourably, and even withstood an attack of erysipelas, which spread over the face, a month after the operation It is to be remembered, that M. Blandin does not ever detach, or cut through, the pedicle of the flap; it is, therefore, obvious that this portion cannot very easily, or possibly become attacked, in consequence of its having been necessarily twisted on itself, when reflected down, unless some ulterior pruning and embellishment by the scalpel be resorted to. Other surgeons have divided the pedicle, when the rest of the flap has become firmly united; but M. Blandin does not approve of this, and prefers the following process:—With a scalpel, he pares the already cicatrized edges of the pedicle, and also the surface of the corresponding integuments, which cover on each side the nasal processes of the upper maxillary bone; these raw surfaces are then carefully applied to each other, and retained in this position by a compress and bandage.

The cure in the above case was most satisfactory, or, in the words of our continental brother, "it was a nose, a true nose—such a nose as is seldom to be seen (we believe it)—a regular, nay, even almost an elegant nose!! and one for which many of my acquaintances would gladly have exchanged their own; and not such a hideous stump or appendix as M. Delpech, and M. Lisfranc, and others have grafted on the faces of their unfortunate patients!!" These latter operators, we are informed, have always divided the pedicle of the frontal flap.

The advantages of preserving the original attachment of the pedicle are manifold; the nutritious vessels are preserved, and the life of the new nose is, therefore, much stronger; the skin, moreover, retains its natural colour, and does not become purple, as has been the case after most operations; besides, the tip of the nose is prevented from falling downwards on the upper lip, and thus closing up either one or both nostrils, an accident which has frequently happened, and caused much annoyance both to patient and surgeon. It may be supposed, that in M. Blandin's method, an awkward and ugly button, or protuberance, must remain at the point where the pedicle is twisted; this is a mistake, for it gradually wears away, and no deformity remains.

Perhaps it is not generally known, that if we blindfold a patient a few days after a rhinoplastic operation, and the new nose be pricked, he will refer the sensation to the forehead; but when the union becomes perfect and complete, the mistake is no longer committed: this, therefore, may perhaps be taken as a test of the proper

time at which the pedicle should be divided, if the operator determines upon that.—*Bullet. de Therap.*

EXTERNAL ILIAC ARTERY SUCCESSFULLY TIED.

BY J. C. HALL, M.D., OF WASHINGTON CITY.

THE feasibility of tying the external iliac artery is so well established, that the following operation is deemed worthy of record only from its having been performed under circumstances extremely unfavourable to success.

Oct. 5, 1831.—I saw George Snow, a labourer, ætat. 35, of intemperate habits, now confined to his bed, reduced in flesh, haggard in appearance; digestive functions impaired. He relates, that three months since, in lifting a heavy burden, he felt something give way in his thigh, and in two or three days afterwards he noticed a small tumour in the upper and inner part of the limb, and that it has unremittingly continued to increase. At this time the left thigh is four times, by admeasurement, the size of the other, and the leg, ankle, and foot, are highly œdematous and varicose. Upon the anterior part of the thigh is presented a tumour, extending from Poupart's ligament, and the superior spine of the ilium, one-third or more of the way downwards, elastic, resisting, and strongly pulsatile; it is of a dark bluish colour, and this not truly pointed; has a prominence when the impulse of the blood is forcibly felt, and produces the impression that here the parietes are very thin. The pulsation is evident on a very wide surface, and, by means of the stethoscope, is discovered high up in the iliac fossa, where also there is much fulness. Here two symptoms give the case a formidable and almost desperate character, rendering it very doubtful whether the rupture in the artery has occurred above or below Poupart's ligament; but, as the pressure of the finger upon the iliac artery arrests the pulsation, and as the prominence of the tumour is below the groin, I feel authorized in thinking that the disease is diffused aneurism arising from a rupture of the femoral artery; that the iliac artery is sound, and may therefore be safely tied. This day the temperature of the affected limb is 84° between the toes, and 86° at the inner part of the thigh; that of the sound limb is 94° and 96° at the corresponding points. There is a general numbness of the thigh, with a severe and constant pain about the knee; pulse 90.

6th. Pulse 114; in other respects no change.

7th. Drs. Dacoes, Warfield, and Collins, examined the case, and concurred in opinion with me, that the operation of tying the external iliac artery gave the only hope of escape from an early death.

This operation I proceeded immediately to perform in the mode recommended by Sir A. Cooper; but, as the processes of the ilium and the line of Poupart's ligament were completely obscured by the swelling, the location of my incision was necessarily uncertain. It commenced at a point opposite to, and distant from, the superior spine of the ilium about one inch, and extending with a gentle curve downwards, terminated on the outer side of the external abdominal ring. The artery was found, and proved to be sound, but great difficulty was experienced in passing the ligature, owing to the very great toughness of the substance connecting it with the vein. The needle in Physic's artery forceps twisted and broke in attempting to pierce this fascia, and finally I was compelled to pass a knife handle under the artery, upon the extremity of which I cautiously made an incision. With Gibson's instrument I then passed the ligature, which was tied singly. Four other vessels were tied. The peritoneum was not injured*. The pulsation in the tumour

* The great strength of the living peritoneum is proved by the following singular accident. Mr. Rodney, aged twenty-five, sitting on a boy's sled, rapidly descended a frozen surface, and came in contact with a blunt stick, an inch broad and half an inch thick. It en-

immediately ceased, but there was no perceptible diminution in size. The wound was dressed simply; the whole limb invested in carded cotton, and laid in a flexed position.

Three hours after operation, pulse 120. Temperature of left limb 85°; of the other 91°. Has some griping near the wound; limb numb; pain at knee severe, insensible to friction, general aspect natural. At 1 o'clock A.M. slight bleeding at nose; shortly after, slept.

8th. At seven A.M. complained of a "heaving" sensation, which was relieved by a mouthful of weak toddy. At eleven A.M. feels well; aspect natural; no appetite; no thirst; tongue clear; pulse 116. Pain in knee diminished, but yet severe; circumference on tumour the same; other parts of the limb much diminished; veins moderately full; temperature in both limbs 87°. At two P.M. great agony in the limb, which is affected in succession with the sensations of hot embers being upon it, of the pouring of hot water, and the pricking of many needles. Complains of nausea and giddiness.

9th. Limb much reduced, but not the tumour; numbness ceased; pain much relieved; pulsation *thought* to be discovered in the anterior tibial artery. Wound nearly closed through its whole extent, having only a little pus and flakes of lymph upon its edges.

At six P.M. after the operation of oil taken in the morning, he complained of a sensation in the abdomen, "like that of a 50lb. weight going up and down;" and upon the hand being applied, the aorta could be felt strongly beating. At ten P.M. laudanum was given to arrest the operation of the oil and calm his irritation.

tered by the side of the rectum, and penetrated six inches. He withdrew it himself; there was a gush of blood; he fainted, and died in thirty-one hours. I did not see him till after death, when, upon examination, I found that the stick had passed between the rectum, peritoneum, and sacrum, and had wounded the primitive iliac just at its bifurcation. *The peritoneum was not wounded at all.*

10th. Pulse varied from 100 to 116; temperature nearly equal in both limbs; applied frictions and warm envelopes to remove coldness of leg.

11th. Beating sensation above the wound.

12th. Not so well; wound sore; "much beating and throbbing in the middle of leg."

15th. His bowels disordered: dark and fœtid stools. Ordered calomel and opium.

From this time no change worthy of record occurred. The œdema rapidly disappeared, while the tumour formed by the coagulated blood very slowly decreased under the use of stimulating frictions. The pain of the knee, depending probably upon pressure made upon the nerves, could only be alleviated. The wound remained generally in a healthy condition, though the healing process was not as rapid as at first promised. Upon the twenty-second day the ligature came away. The patient continued to do well in every respect; and though the limb is not entirely reduced to its natural standard, no doubt remains that it will be perfectly restored. To the assiduity and skill of Dr. Barry, who attended during the after-treatment, I am much indebted for the happy termination of this case.—*American Journal of the Medical Sciences.*

Reviews.

Pharmacologia. By J. A. Paris, M. D. Cantab., F. R. S., F. L. S., Fellow of the Royal College of Physicians, &c. &c. Eighth Edition, 8vo. pp. 760. 1833. London, Sherwood and Co.

On a former occasion we suggested the propriety of publishing the Pharmacologia in one volume, and consequently at less expense than when it appeared in two; and we are gratified to observe that our hint has been acted upon, because the circulation of a standard work will be greatly extended, and the valuable matter it

contains will be infinitely more diffused than if it appeared as in the former expensive editions. The author has introduced many improvements; but he has, by no means, collected all the recent discoveries in this branch of medicine. In proof of this statement, we refer to his description of iodine, in which we find no allusion made to the valuable researches of M. Lugol, to their approval by the Royal Academy of Sciences, or even to their translation by Dr. O'Shaughnessy. On the contrary, Dr. Paris is among the few, who think, that if iodine possesses a hundredth part of the powers ascribed to it, we must consider it a powerful medicine. This is also the opinion of Mr. Lawrence, and of that brilliant character "wot" conducts the constellation, that blazing comet of Paternoster-row; while the French Academy award Lugol 6000 francs for his essay on iodine, as a remedy for every form of scrofula. It is right to remember, that the hospital attended by Lugol (Hôpital Saint Louis) is intended for cutaneous and scrofulous diseases, and that patients are allowed to remain for an indefinite period under treatment; and, therefore, that the physician enjoys what he cannot in this country (for scrofulous patients are excluded from our hospitals), the most ample opportunity of observing the progress of the disease and the effect of treatment. M. Lugol's statements are confirmed by MM. Magendie, Serres, and Dumeril, the commissioners appointed by the Academy, who recommend, in the strongest terms, that truly scientific institution to sanction all Lugol's declarations; while our author passes them by without the slightest notice.

We shall not comment further on this omission, than by expressing our deep regret, that a physician of such authority as Dr. Paris should throw a doubt on the efficacy of iodine in scrofula. We might point out other omissions in his work; but we decline doing so, on account of the intrinsic merits of the doctrines it inculcates. It is the only treatise in our language which contains correct directions for prescribing; and on this ground alone it is unequalled. But here we have reason to complain of the adoption of most of the rules laid down by Gaubius, without any acknowledgment. Nevertheless, the Pharmacologia, with all its blemishes, possesses peculiar merits. It exposes the composition of an immense number of nostrums or quack medicines; it instructs the student, and even the practitioner, in the art of prescribing; and offers information which cannot be obtained in any other British work. It unquestionably ought to have, and will have, a place in the library of every medical practitioner in the British dominions.

The Principles and Practice of Obstetric Medicine, in a Series of Systematic Dissertations on Midwifery, and on Diseases of Women and Children. Illustrated by numerous Plates. By David D. Davis, M.D. M.R.S., and Professor of Midwifery in the University of London, &c. &c. 4to. One Plate. Part XVI. Feb. 1833. John Taylor.

The present number of the work before us abounds with practical information of great importance, and shows the extensive erudition and ample experience of the author. It contains many interesting cases which would be overlooked by superficial observers. We select some examples of leucorrhœa, induced by causes which would evade the detection of ordinary practitioners. We fulfil our promise of noticing this work as soon after its publication as possible.

"Leucorrhea has sometimes been produced, as we have already seen, by the excitement of the first sexual congress. Cases of this kind, however, can seldom be expected to be reported to the medical attendant until after the lapse of several weeks subsequently to the commencement of the irritation. The remedy might have reference to the sexual conformation, or to some other attribute or

circumstance appertaining to the husband. These points should be positively ascertained before the wife is submitted to personal examination. The irritation here supposed is often the result of a more than ordinary contractedness of the orifice of the vagina. The difficulty, then, incident to the exercise of the sexual congress, may be such as to excite the mucous glands, which enter very numerously into the constituent structure of that part, into a state of inflammatory irritation, in consequence of which they are thrown into morbidly excessive action; or, in other words, they become the source of a profuse leucorrheal profluvium. Again: by reason of a more than ordinary brevity of the vagina, the glandular apparatus at the orifice of the uterus may become the seat and subject of much functional irritation, in consequence of its exposure to inordinate pressure during the exercise of the coitus. The first of these cases must be treated by a frequent use of the warm hip-bath, by soothing fomentations to the genitals, by the occasional abstraction of blood, by leeches, from the immediately adjoining surfaces, and by practising at least some abstinence as to the imputed means or cause of the irritation. In several obstinate cases of this description, which, at different times, have fallen within the cognizance of the author, he has observed that waxed sponge tents, worn for an hour or two daily, have been attended with excellent effects. In the other case, the treatment must obviously consist in a prudent forbearance from a too forcible application of the cause, and must of necessity be entrusted to the good sense and good feeling of the husband.—*Denman's Introduction to the Practice of Midwifery,* ch. iii. sect. 2. Again: all the organs more immediately interested in leucorrheal profluvia, although perfectly natural as to their conformation, may, nevertheless, become the sources of profuse discharges of that kind, in consequence of abuse of their functional attributes. Hence the constant liability of courtezans to all sorts of morbid discharges from the genital passages. In the treatment of fluor albus of married ladies, when presumed to depend upon this cause, much skilful management will be required on the part of the practitioner: first to detect the fact of such a case, and then to procure a strict observance of the prophylactic and remedial measures to be pursued. It is manifest that the husband must here also be made an accessary, and, in some respects, indeed a principal, to the treatment to be adopted. The husband, in fact, is generally most chargeable with the blame attaching to excesses of this description; at all events, the prophylactic part of the treatment must be entrusted to him alone. In the mean time, a temporary separation may be advised, as being more substantially calculated to ensure conformity to a restrictive precept, such as we here suppose, than any oral, or even written, annunciation of it. The remedial measures to be had recourse to will, of course, depend on the extent of the evil supposed to have been induced. If the discharge is presumed to have existed for a long time, to have been very profuse and debilitating, and the patient is supposed in consequence to be reduced to a state of extreme delicacy as to her general health, it is obvious that our indication of treatment must include all the means that may seem calculated to impart tone to all the more important functions of the system. Next to the actions of the genital organs themselves, those of the chylopoietic organs will generally be found most embarrassed and deranged. These, therefore, should be made the objects of our earliest attention. For the first week or two, the profluvium should only be treated by the most soothing tepid injections or lotions, as the particular case may indicate, consisting of herbaceous infusions or decoctions, as those of marsh-mallows, poppy heads, etc. and afterwards of such as may be expected to prove more tonic and astringent. Without incurring the charge of much

unnecessary repetition, the author cannot here go into a detail of the whole treatment of cases of leucorrhea depending upon the particular cause now supposed, but which must be considered as identified with many others as to their effects upon the constitution.

" Sexual profluvia of a simply leucorrheal character are sometimes, and under certain circumstances, exceedingly difficult to be distinguished from gonorrheal discharges; whereas, in all such cases, it is more or less important to establish the diagnosis, if practicable, on principles which might leave no possible doubt as to their proper origin. The author is anxious to urge this point strongly on his reader's attention, inasmuch as he has, in the course of his practice, encountered several unquestionable examples of gonorrhea, treated without mercury, from which subsequently the system became tainted with the virus of constitutional syphilis. A case of this description is, indeed, at the present moment under his professional care. About three weeks ago Mrs. G. requested his advice for her infant, a puny-looking male child, six weeks old. The case was one of copper-coloured eruptions on the nates and genitals, and of large malignant ulcerations of the left foot, which extended to the heel and ancle of the same extremity. This child when born, to use the language of its mother, " was a very fine baby," and perfectly free from every appearance of cutaneous disease. It did not however thrive; but instead of increasing in strength and size, it daily became less vigorous and less healthy in its appearance; although the mother was in a situation to furnish it with an ample supply of good milk. Towards the end of the third week after its birth, the eruptions above described made their appearance rather suddenly. Of their proper nosological character there could not be the smallest room to doubt. The mother of course was not privy to the cause; nor, indeed, did she seem to have any the most distant suspicion of it. The author, therefore, immediately sought an interview with the father, to whom he made a full communication of his opinion as to the undoubted nature of the cause. That gentleman stated in reply, that he had been married about fifteen months, and that when he married he considered himself perfectly free from all possible taint of injury from any gaieties with women; that indeed he never had, at any period, been the subject of chancres, nor of any kind of venereal ulcers, nor of bubo; *but that, on more than one occasion, he had been affected with gonorrhea*, and that when he last had it, he had sustained very serious inconveniences from it. He concluded, however, his statement with a positive assurance, and he could be actuated by no rational motive to misrepresent the fact, that he had had no one symptom even of that complaint for upwards of two years before he married. The eruption on the infant has since yielded to the action of a third of a grain of calomel exhibited three times a day, and of five grains of blue pill given twice a day to the mother. The mother's mouth has been slightly affected, and the remedy in her case is being now suspended, again, perhaps, to be soon resumed; but in that of the infant it has been given without intermission, and will probably be continued for two or three weeks longer, to avoid the possibility of a relapse. In the mean time the child is amazingly improved both in health and looks. The father was recommended to apply to his surgeon, under whose care he is at present. Whilst writing out the above case, the author has just recollected that within the same period he has been consulted by his friend Mr. Lamb, of York-square, Regent's-park, for another case of constitutional syphilis derived exclusively from a gonorrheal source. The subject of the case is a young woman, who for some years was under the protection of an oldish gentleman of gay habits, who neglected and other-

wise ill-treated her. For the last year and a half she has lived with her mother, a widow in middling circumstances, in a state of great retirement. According to the testimony of this person, she has never been affected by venereal ulcers nor buboes; nor since her retirement from under the abovementioned protection, has she been the subject of any morbid discharges from her genitals, which however she acknowledges she had been on more than one occasion previously. Since she has lived with her mother she has enjoyed a pretty good state of health till within about three weeks ago, when a few small spots of a coppery coloured eruption began to appear about her face and neck. At present the whole surface of her body is covered with an immense crop of well-characterized venereal blotches. She has, therefore, already entered on a course of mercury under the immediate care of Mr. Lamb. The consequences of venereal excesses committed by avowed courtezans and other females of light character, do not come within the scope of the present work. For the treatment, therefore, of malignant gonorrhea, and of some other forms of profluvia consequent upon venereal impurities, the author must refer his readers to the able works which have been written professedly on these subjects.

"The leucorrhea which presents itself, as a frequent result and accompaniment of gestation, is for the most part a symptomatic affection, often purely local in its influence, and seldom protracted beyond the duration of its occasional cause. Pregnancy may be identified with a plethoric condition of the genital system. During the earlier months of gestation the uterus, gradually increasing both in weight and volume, is apt to sink into a lower part of the pelvic cavity than it is usual for it to occupy during its unimpregnated state. A natural consequence of this descent must therefore be some amount of friction and pressure of that organ against the parietes of the vagina, and especially against those inferior portions of it which may be said to constitute the flooring of the pelvis. But the mucous apparatus of the vagina is a considerable constituent tissue of the inferior portion of the genital passage. It is accordingly the glandular part of the mucous membrane of that portion of the vagina which is especially the source of the leucorrheal discharge which almost always attends the earlier months of pregnancy. At the period of quickening, the womb usually ascends from the cavity of the pelvis into that of the abdomen; wherefore at that stage of the gestation it is common for women to be much relieved of their fluor albus, as well as of other symptoms of local irritation, which from the influence of the mechanical cause just explained are seldom entirely absent during the earlier months. Again, during the latter months of gestation, the uterus, although elevated above the brim of the pelvis, undergoes so prodigious a development, and acquires such accession both of bulk and weight, the whole amount of its enlargement being indeed accessional to its ordinary condition at other times, that it can scarcely be expected it should not be productive of considerable inconvenience and disturbance to its immediately contiguous organs. Hence principally the teazing aches and pains which are referred to the back and loins, and to the parts about the brim of the pelvis generally; hence the frequent desire to void the contents of the bladder; and hence, no doubt, the profuse leucorrheal profluvia, which scarcely ever fail to attend the latter weeks and months of gestation. Moreover, it may be stated as a known fact, that the vagina sustains a considerable extension of its length during the more advanced stages of pregnancy; a circumstance which very probably may have some effect in quickening the action of its exhalant vessels and glands. To these indisputable facts let there be added the consideration that the vaginal arteries are derived from the same great trunks from which are produced the

important arteries which supply the uterus itself with blood. Now if one great system of branches from these common trunks is made to sustain an extraordinary development, which we know to be the case with the uterine arteries during gestation, it seems probable that its immediately adjoining branches, which are employed to supply blood to contiguous organs, cannot at the same time remain in their ordinary state of distention. It is indeed a matter of universal admission that they do not. By these several modes of explanation therefore we readily account for the profuse leucorrheal discharges, to which most women are liable during the latter months of their gestation.

"From such a view of the causes of the profluvium under consideration, the reader will doubtless see good reason to infer the comparative unprofitableness of any system of treatment for it. Some slight mitigation of the discharge will accordingly be all which the practitioner will usually find himself competent to accomplish. This limited relief of it will be occasionally obtained from the adoption of certain vigorous measures which may be found necessary for subduing other and more important symptoms. General bleeding may be mentioned as the principal of such measures. In cases of very painful hæmorrhoids we sometimes derive great advantage from the application of a good many leeches to the anus. A certain amount of relief is thus obtained to the overdistended vessels, not only of the rectum, but also of those of the neighbouring genitals. This same practice may indeed often be required to be extended to the more accessible parts of the genitals themselves. The reader, however, who has made himself acquainted with the foregoing portion of the present work, should be apprised that the author does not here intend to recommend the application of leeches to the orifice of the uterus even when accessible, during any part of gestation. Under the circumstances now describing, the tepid bath, the tepid hip-bath, the frequent use of the bidet, and injections of tepid water into the vagina, will often most materially serve to promote the patient's comfort. The bowels should be kept constantly open by mildly aperient medicines and enemata. A reclining or a horizontal position, by diminishing the amount of pressure which the parts about the brim of the pelvis would otherwise have to sustain from the gravid uterus, might in many cases be made available towards greatly reducing the discharge as to quantity. To effect its entire removal will be found almost in all cases perfectly impracticable."

CORRESPONDENTS.

H. L. J. is too saucy. The readers of our Journal do not make allowance for hasty writing.

A. C.—The translation of a certain work is announced in ambiguous terms.

Edinensis is unjustly severe.

J. C.—Want of room prevented us from noticing No. II. of Dr. Hope's highly instructive work on Morbid Anatomy.

J. J. B. is unreasonable. Let him look to our contemporaries.

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THE

London Medical and Surgical Journal.

No. 55. SATURDAY, FEBRUARY 16, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXIII., DELIVERED NOV. 26, 1832.

Gentlemen,—From what was stated in the last lecture, it must be manifest to you, that no particular dressings will suit every description of burn, and, indeed, that different parts of the same burn may require different applications. Although Dr. Kentish's mode of treating burns and scalds has met with extensive approbation in this country, and frequently answers very well, there can be no doubt, that the principles on which he declares the practice to act beneficially, are, for the most part, erroneous, and not adapted to the best modern views of physiology. You will remember, that he begins with applying to the burnt part very stimulating fluids, such as æther or camphorated spirit; he next discontinues these, and employs the turpentine liniment; and afterwards makes use of weaker applications. His design is, to let their strength be gradually diminished, in proportion as the increased action of the parts subsides, or down to the period of suppuration, when the action of the parts has become like that of the rest of the system. In short, his principle is not to let the increased action decline too abruptly and suddenly, but to secure a very gradual cessation of it, by the plan which has been specified. Now, this reasoning is, perhaps, not of much value; yet, if the practice to which it leads, is successful, this is the main information which we require, and the theory may be dismissed. Well, then, gentlemen, you will recollect that Dr. Kentish's plan was to discontinue the stimulant applications as soon as suppuration had commenced, and then to employ mild astringent salves, like the *ceratum calaminæ*, or the *ceratum plumbi acetatis*. For the repression of exuberant granulations, Dr. Kentish found powdered chalk a useful article, with which he was also accustomed to fill the cavities left by the detachment of eschars, or sloughs, and the furrows produced between the dead and living parts.

Gentlemen, I may next remark, that although many and various modes of dressing burns are in favour with different practitioners, certain principles in the management of these cases seem now to meet with the general approbation of the best practical surgeons. Thus, I may say, that the utility of some of the most eligible applications and dressings for burns and scalds depends on the efficiency, with which they keep the parts excluded from the air. This is a principle, which, I believe, is well established; and hence the benefit resulting from carded cotton, flour, the turpentine liniment, the linimentum calcis, or the still more simple method, followed in some provincial towns, of covering the burnt or scalded surface with a complete layer of elastic gum dissolved in turpentine, and put on with a fine brush. In compliance with the principle to which I have alluded, it is now a settled maxim, that the dressings should not be so often changed, as was once the practice. Indeed, many surgeons now prefer leaving the first dressings on the part till suppuration commences, and even longer, when flour, carded cotton, or a varnish of elastic gum is used. Even when cold applications are applied to a burn of a mild degree, there is no occasion to take off the rags for the purpose of wetting them from time to time: but the lotion is pressed out of a sponge, and allowed to fall on the linen in sufficient quantity to wet it, and keep up the requisite evaporation, without exposure, disturbance, or irritation of the parts.

Gentlemen, I have next a few observations to make on the internal treatment of burnt or scalded patients. Dr. Kentish's ideas led him to aim at making the constitutional treatment correspond, as much as possible, to the external means, dictated by a certain principle, which I have already noticed. His first aim was to keep the excitement in the system from

stopping too suddenly; and, for this purpose, he commenced with giving powerful stimulants, such as brandy, æther, or ammonia. In short, his internal treatment conformed to the external; for, from these strong stimulants, he proceeded gradually to others of a weaker and weaker description; thus, from brandy he proceeded to wine and ale, until suppuration had been established, when, according to his theory, stimulants were no longer indicated.

Now, gentlemen, although stimulants may be useful at first, that is to say, during the depression of the system immediately succeeding a bad burn, yet if they be continued beyond the period when re-action commences, they are liable to increase the tendency to dangerous determinations of blood to the brain, lungs, or intestinal canal. I believe it is a fact, that a greater number of cases terminate fatally from this cause, when internal stimulants are persevered in after a re-action has taken place, than when they are relinquished for antiphlogistic treatment. This fact seems to me fully proved; and was well illustrated by the cases that were brought into St. Bartholomew's Hospital at the time when Coventgarden theatre was destroyed by fire. At that time, Dr. Kentish's practice was new, and, as it were, in fashion: every direction which he had given was observed: and, amongst other things, his advice respecting the administration of internal stimulants and cordials, was rigorously obeyed, and the consequence was, that many of these unfortunate individuals died of determination of blood to the brain and other internal organs.

Gentlemen, this is a convenient opportunity to explain to you, that, when a person meets with a severe burn, a determination of blood to internal viscera, and, in particular, to the mucous membrane of the intestinal canal, is an ordinary consequence. If you open the bodies of individuals who have perished in the midst of the flames, you will see red patches dispersed over the mucous membrane of the alimentary canal; and you will find the fluid in the ventricles of the brain tinged with a red colour. You will observe red spots, and a turgescence of the vessels of the mucous membrane of the bronchia, indicating the presence of an increased quantity of blood in the capillaries of those parts. These facts, I believe, were first pointed out by Baron Dupuytren, whose zeal led him to investigate, with remarkable care, the nature of the appearances found in the bodies of persons who perish of severe burns. These facts seem to me to explain why it happens, that, when a person has rallied from his first collapse, the stimulant plan must be injurious; for, whatever then tends to accelerate the circulation, which is already too quick, must promote the occurrence of those fatal congestions to which I have called your attention.

Surgeons are as much divided in opinion about the internal treatment of burns as about the external applications, to which the preference should be given. However, all practical surgeons agree on one point, namely, that while the collapse lasts, that is, while the pulse is feeble, the extremities cold, the countenance pallid, the patient disposed to shiver and vomit, cordials and stimulants are proper. Under these circumstances you may give a little wine, brandy, or æther, with advantage; and, if you add a few minims of laudanum to what is given, you will succeed more effectually in quieting the stomach, keeping off rigors, and tranquillizing the system at large. Bladders, filled with warm water, should also be applied to the cold extremities and the epigastrium.

But, gentlemen, no sooner has a re-action in the system taken place, and fever begun, than you should discontinue stimulants, and confide in antiphlogistic means. In France, one plan is frequently pursued, which is not common in this country; I allude to the application of leeches to the burnt surface, and especially in that stage of the injury in which a considerable re-action has taken place. Professor Cloquet finds leeches as useful in burns as we do in erysipelas. Indeed, during the re-action, I believe the abstraction of blood may often be practised with the greatest benefit. This practice, it is true, is not usually followed; and numerous surgeons are reluctant to bleed burnt patients; yet, as vast numbers of persons die of such injuries, it is a question, whether a larger proportion of them might not be saved if bleeding were not more commonly practised. I believe that a change in this respect would be an improvement in practice; it is impossible not to think so, when it is recollected that many, very many, persons who die of these injuries are found to have internal congestions, which, if any thing can prevent, it must be the abstraction of blood.

Bleeding is useful, too, on another principle, namely, by its effect in subduing irritation in the part itself; but, notwithstanding any remark which I have offered on the subject of bleeding burnt patients, you should be guided very much by the state of the pulse, and of the constitution of the individual.

In severe burns, there is a period that is usually one of considerable irritation and suffering, and that is when the sloughs are beginning to loosen and fall off, for then fresh tender surfaces are exposed, so as to become a source of great agony and excitement. At this crisis, you will commonly notice an aggravation, or return of the fever, something like what is remarked in small-pox about the tenth or eleventh day, when the pustules are all fully formed, and the surface of the body extensively irritated by them. In this instance, the fresh irritation causes a secondary fever, and so also in severe and extensive burns, you will notice a secondary fever, or an aggravation of the primary one, arising from an exposure of raw sensible surfaces by the loosening of the sloughs. The constitutional disturbance

is now so great, that strict antiphlogistic measures, inclusive of bleeding, often become indispensable.

Gentlemen, one remark, originally made by Dr. Kentish, in relation to the treatment of burns, appears to me worthy of your recollection —namely, that when the suppuration is exceedingly copious, and the discharge instead of diminishing, reduces the patient to a dangerously low state, the exhibition of purgatives is one of the best means of diminishing the inordinate secretion of pus. When the suppuration is profuse, and of long continuance, you may find attention to this fact of great practical importance; but it should not interfere with the use of astringent lotions, which, under such circumstances, are also highly beneficial. Suppuration, continued profusely beyond a certain time, will always induce hectic symptoms, which, if not checked, will bring the patient into considerable danger.

Opium is generally allowed to be a most valuable medicine for patients, who have received bad injuries from fire; at first, it is given to keep off shiverings, to quiet the stomach, and to tranquillize the system; it is afterwards employed to procure the patient rest, and to relieve him from the agony which he is suffering during the treatment. Indeed, I know of few cases which, taking them from their beginning to their end, cause more pain than severe burns. The pain, attending the removal of the dressings, is extremely great, and, on this account, you should make it a rule not to change them more frequently than necessary, and to do it with the utmost gentleness. When the injured surface is large, you should never uncover the whole of it at once, but take only a portion of the dressings off at at a time, and finish what is to be done in this situation before you expose another part of the injured surface.

Then, gentlemen, with regard to the disfigurements and contractions, which take place during, or after, the healing process, you may ask how is it possible to prevent them from taking place, when such contractions are the effects of an established principle in the animal economy? You cannot, indeed, always prevent these contractions; but the observations of Mr. Earle show, that they may be lessened, modified, or regulated in such a way, that their effects are very materially reduced. For example, supposing the anterior part of the arm and fore-arm were burnt, if you keep the elbow-joint constantly extended during the healing process, and for a sufficiently long time after cicatrization has been completed, you will prevent the granulations and cicatrix from contracting in the longitudinal direction, and then nature, finding herself unable to accomplish the contraction in this direction, is forced, as it were, to draw the old skin over the part from each side of the injury, and the result is, that the fore-arm is not drawn up to the arm, and permanently fixed in an almost useless extreme state of flexion. This evil would happen, however, if care were not taken to restrict the contraction chiefly to the transverse direction. With this view, various mechanical contrivances are employed. Thus, in the case of a burn in front of the arm, you must apply a splint to keep the limb extended, and continue its application long after the healing is complete. Sometimes you will find it convenient to keep the limb extended, by means of a splint, the angle of which may be regulated according to circumstances. In the plate, contained in Mr. Earle's tract on burns, and which I now show you, there is a representation of an apparatus, extending from the hip to the lower part of the humerus; for, in burns affecting the parts about the breast and arm-pit, if recourse were not had to some such mechanical contrivance, the arm would be actually pinioned to the side; but, by means of instruments of this kind, applied during the healing process, and for a considerable time after its completion, you are enabled to prevent so very serious a consequence. Then, for the neck, an instrument, called the *stiff collar*, is often employed to resist the tendency which burns of that part have to produce wry-neck, and even to fix the cheek on the shoulder, or bind the chin down to the sternum. The plates, representing Mr. Earle's contrivances, may be passed round, as they are too small for you to see them well at this distance.

I explained to you, that Mr. Earle has cured many of these deformities by cutting away the firm horny cicatrices, then bringing the sides of the wound together transversely, and following up the principles which I have detailed to you. Fabricius Hildanus seems to have adopted a similar practice; and, if you look over Mr. Earle's two lectures on this subject, you will find, that he was not aware of what Hildanus had done and inculcated, till long after the period, when he published some remarks, on this part of surgery, in the Medico-Chirurgical Transactions of London.

Another circumstance, to be attended to in the treatment of burns, is to have recourse occasionally to passive motion of the joints; for if they remain too long in one posture, they will be a great while in recovering freedom of motion. In what is termed *passive motion*, you know, that the patient does not move the joint himself, but lets an attendant do it for him: the muscles of another person are employed for the purpose, instead of his own.

Gentlemen, the next subject, which I propose to consider, will be certain *effects of cold* on the human body. The first effect of a certain degree of cold, applied to the human body, is to weaken the circulation: the circulation in the capillaries being retarded in the part immediately exposed to the great reduction of temperature. This is particularly demonstrated in the extremities, and the *thin* portions of the body, remote from the heart, such as the ears, nose, toes, and fingers. You may also observe, that a kind of corrugation of the integuments is produced; a rough ap-

pearance, like what is perceptible on the skin of an unfeathered goose, and, for this reason, termed the *cutis anserina*. A still lower temperature generally reduces the action of the heart and arteries; and the blood being detained in the cutaneous vessels, parts assume a livid or purple colour. If the cold is more intense, or the part has been longer exposed to it, a tendency to inflammation and its worst consequences will be communicated. But these bad effects only happen under particular circumstances, and do not always take place, though the cold may have been very intense; for, strictly speaking, exposure to cold is only a predisposing cause of inflammation and its consequences, and these will not happen till the temperature is again raised. Parts, which thus inflame and perish, are said to be *frost-bitten*, or *frost-nipped*. From the weakness and retardation of the circulation, produced by cold, other consequences may follow. We know that a free circulation of well oxygenated blood is essential to the performance of the functions of the brain and nervous system. Hence numbness of the hands and fingers must be a natural consequence of their exposure to certain degrees of cold, because, as the blood does not then duly circulate through them, their nerves are not in a condition for the performance of their office. Under these circumstances, the fingers cannot feel what they touch; and, on the same principle, if a very cold substance be put into the mouth, the gustatory nerves have not the power of tasting it, or of dicriminating what it may be. Therefore, cold destroys or impairs the functions of the nerves immediately under its influence.

If the cold be intense, or of long continuance, the power of the whole nervous system will be diminished; the patient feels a remarkable torpor; the action of the whole muscular system will be enfeebled; the muscles will hardly obey the will; and a drowsiness will come on, which, if not dispelled, will lead to sleep, from which the individual will never again awake. Thus, when Sir Joseph Banks, and several others of the crew of Capt. Cook's ship, landed in a very cold part of America, the party was seized with an almost irresistible drowsiness, and inclination to sleep; and those who could not be persuaded to keep awake, all perished. Sir Joseph himself had the greatest difficulty in resisting the inclination to sleep; but being aware of the consequences, he avoided what would have been fatal to him, as well as to some of his comrades.

In the examples of death from intense cold, which happened in the French army during the Russian campaign under Napoleon, the extinction of life was preceded by an impairment of the intellects, a difficulty of speech, and an amaurotic affection of the eyes. According to Larrey, the men reeled about as if intoxicated; they could not direct their feet with precision; frequently, before death, there was an involuntary discharge of urine and fæces, and sometimes hæmorrhage from the nose; those who had fasted were more quickly victims than others who had had meals; this is what we should have expected, from the weaker state of the circulation in those men who had not been supplied with nourishment. Whether the human body, after it has been frozen, can be revived or not, is a question that has sometimes been discussed. Those who assert the possibility of revival, under such circumstances, seem to me to be mistaken; they have confounded mere suspension of animation by cold, with a truly frozen state of the body; but these are very different conditions. From the experiments which Mr. John Hunter made on this subject, he concluded, that an animal *must be killed before it can be frozen*—that death must precede congelation. This is certainly the case with men, and the higher animals; although there are some of the lower ones which appear to be capable of being restored to life after being frozen; for example, spiders, carp, and perhaps snakes: but, with regard to man, I think there will be no difficulty in convincing you, that there is no possibility of recovery. Some animals may be undoubtedly revived after being frozen, for Captain Parry saw carp, and other fish, which had been in a frozen state for thirty-six hours, and were so solid, that when cut with a hatchet chips of them flew off, revive on being thawed, and swim about again as well as ever. But, gentlemen, with regard to the human race, if you consider the most memorable recoveries that have taken place after long exposure to severe cold, you will find, that certain particulars, inadvertently but faithfully recorded, leave no doubt, that the subjects of them were not actually frozen, because the functions of the brain and nervous system were not annihilated. Thus, in the case of Elizabeth Woodcock, who was buried several days in snow, I think in some part of Cambridgeshire, she could not have been frozen, because she *described her feelings* during the time she was exposed to the cold, and, in particular, she was *afraid of being starved to death for want of food*. In another case, which happened to a French peasant, who was buried for four days in the snow of the Pyrenees, his body could not have been frozen, because he *awoke with a sensation of thirst*, and therefore must have been conscious of certain feelings during his immersion; in fact, he knew of his situation; his brain must have been supplied with blood, and therefore could not have been frozen.

Now, gentlemen, with regard to the treatment of torpor, or suspended animation from exposure to cold, I must admonish you, that if warmth be too suddenly applied, you will destroy all chance of the patient's recovery. This fact agrees with an observation of John Hunter, namely, that the *quantity of heat*, which the system will safely bear, always corresponds to the vigour of the animal functions, or to the *quantity of life*, as he expresses it. Thus, if the body is extremely cold, and

warmth is suddenly applied, the re-action will be greater than the system, with its diminished vital power, will be able to endure, and the result will commonly be fatal. This fact is well illustrated by the circumstance, that when blackbirds, or thrushes, forced by severe weather to seek shelter in out-houses, where they are caught, are brought suddenly into a warm room, they quickly die. Just so, many soldiers of the French army, during the Russian campaign, who, after having been exposed to intense cold, came suddenly into a warm room, or near the fire of the bivouacs, died in an instant; they were seized with a kind of asphyxia, and fell stiff dead on the spot. On opening some of these soldiers, Larrey found an immense accumulation of blood in the lungs and brain, to which he refers the sudden extinction of life. It is, therefore, a principle in the treatment of persons, who have been exposed to severe cold and are suffering from its effects, to let warmth be communicated to them very gradually; they must at first be brought into a room, where there is no fire, and rubbed with snow; this is the common practice in cold countries. On the return of sense and motion, frictions, with camphorated spirit, may be adopted; afterwards, a little wine injected down the œsophagus, the fauces tickled with a feather, and air blown into the lungs. These are the first measures: the patient may next be placed between blankets, and a fire lighted in the room, but this must be done very cautiously, for if it be done too soon, the patient will fall a victim. After a time, a warm diaphoretic drink, such as tea, may be administered. The great principle, as you may perceive, is to let the temperature of the patient be raised only in the most gradual manner possible.

Gentlemen, although Mr. Hunter never succeeded in reviving a whole animal that had been truly frozen, a thing however which is now known to be possible with respect to spiders and carp, the result of his experiments on frozen parts was different, for he ascertained, that such parts might be thawed, without their being destroyed. Thus, he froze the ears of rabbits, and, though a violent inflammation was the consequence, the parts did not mortify. How long a part may continue frozen, and be capable of being again brought to life, is a question on which the highest authorities differ; but, in relation to another point, namely, that of keeping parts, so circumstanced, from being too suddenly exposed to a much higher temperature, only one opinion prevails. Dr. Kellie did, indeed, treat some individuals very successfully on the opposite principle, that is, by having prompt recourse to warmth and stimulants; but the cases, in which he succeeded, were not so much the effect of exposure to intense cold as to fatigue and privation, for the patients were shipwrecked seamen, who had been for several hours without food, and partly immersed in the sea. This was not an instance of such treatment applied to persons under the influence simply of intense cold. Then, gentlemen, you should recollect, that cold is only a predisposing cause of inflammation, and that, if the temperature be not too suddenly raised, there may be no inflammation at all. The French army under Napoleon, in Poland, was for several days and nights exposed to a most severe degree of cold, in position before the enemy and continually on the *qui vive*; yet, as long as the thermometer remained far below the freezing point, not a single soldier presented himself to the surgeons with chilblains, or frost-bitten parts; but, directly the thaw commenced, the *ambulances*, as they are called, or moveable hospitals, were surrounded with patients seeking relief for violent inflammations of the fingers and toes, and gangrenous mischief of their feet, arising from the sudden change of temperature. When a part has been exposed to intense cold, you may prevent such evils by first rubbing it with very cold water, until sensibility and power of motion return; then it may be rubbed with brandy, or camphorated spirit; and, after a little more time, the patient may take a glass of mulled wine, and be brought into a higher temperature; but, if this be done too soon, the part will inevitably mortify.

Another question, connected with the present subject, is, whether, in the event of the whole thickness of a limb being seized with gangrene from the effects of cold, you ought to defer amputation till the red line of demarcation is formed? Larrey is an advocate for delay; while Schmucker, the celebrated surgeon-general of the Prussian army, is in favour of immediate amputation. This diversity of advice may be accounted for by the degree of inflammation and the disposition of the mortification to stop, or not, being different in different instances, in proportion as the parts, while weakened by intense cold, are more or less suddenly exposed to a warm atmosphere If the warmth be very suddenly applied, the progress of the mortification is so rapid that it may positively be seen. Larrey mentions examples, in which he actually saw the advance of the mortification up the limb while his eyes were fixed on the part. But, gentlemen, if the case be more prudently treated, and the patient be kept for some time away from a warm atmosphere, you may probably have an opportunity of waiting safely for the line of separation. When the progress of the mortification is as rapid as that described by Baron Larrey, it would be absurd to lose time.

Chilblains, gentlemen, are inflammations, or sores, arising from exposure to cold. In their mildest form, they are attended with heat, itching, and redness of the parts, which are generally either the toes, fingers, or some other portion of the feet or hand, but sometimes the nose, chin, or ears. In their next degree of severity, they are accompanied by vesications, and the parts are still more swelled, red, or livid. Under the detached cuticle,

you will find a collection of bloody ichorous matter. Another, and a more severe form of chilblain, is that which proceeds to ulceration. The sores, which are formed in consequence of chilblains, are often very deep, excessively painful, and particularly obstinate, much more so than those produced by burns. The worst chilblains are attended with sloughing. Chilblains most frequently attack delicate persons, and hence women and children are most liable to them, the parts affected being usually such as are most remote from the source of the circulation, or extreme parts, like the fingers or toes. Properly speaking, then, gentlemen, you will see in practice four descriptions of chilblains:—1. A chilblain with mere redness of the part, heat, and itching; 2. Another with more inflammation, pain, swelling, and vesication; 3. A third, characterized by ulceration; and, 4. A fourth, attended with mortification.

From what has been said, you will readily perceive some points of resemblance between burns and chilblains, and especially in relation to the appearances, characterizing their several degrees or varieties.

As the advanced period of the evening will not allow me to speak of the treatment of chilblains, I will begin the lecture on Wednesday next with that part of the subject.

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

At St. Thomas's Hospital, Monday, Jan. 14, 1833.

Disease of the Heart, with Dropsy—Value of Auscultation—Accuracy of Diagnosis—Efficacy of Mercury in Inflammation of Serous Membranes—Pathology of Hypertrophy of the Heart—Albuminous Urine not always caused by renal Disease—Rheumatism.

Gentlemen,—Since I had last the pleasure of meeting you, fourteen patients have been discharged from the hospital, eight of whom were males, and six females; and there has been one death. The death occurred in the case of James Downey, a shoemaker, aged 52, an Irishman, who was admitted on the 28th Dec. into Luke's Ward. His countenance, on admission, was pallid and doughy; he had anasarca, which commenced in his feet, and soon extended to his legs, thighs, and scrotum. The whole of his body soon afterwards became affected; and there was slight fluctuation afforded by percussion of the abdomen; and upon pressure he felt an uneasy sensation over the region of the cœcum. He stated, at this time, that he had only been ill for six weeks; his feet then first began to swell, and from this time he dated his illness. Now, you must recollect he was an Irishman, and that, in general, we have great difficulty in getting a correct history of disease from this class of individuals; but, besides this, he was of sedentary habits, his employment being that of a shoemaker: consequently, he was not accustomed to laborious exertion: so he might have felt comparatively well a much longer period than if he had followed a more vigorous occupation. He admitted that he had been a hard drinker up to the last two years; and stated, that during the last twelve months he had been exposed to great want. Six weeks ago, then, he was first attacked with anasarca; and previously to that time, he states, his health was good. When admitted, his appetite was good, bowels regular, urine high coloured and very albuminous; had slight cough, but no expectoration; was unable to lie upon his left side, but could lie upon his right: the most easy position to him was on his back. His pulse (I perceive from the note book) was 120, small, and bore little pressure, but his arms were anasarcous; and in those cases there requires considerable pressure on the radial artery to feel accurately the force of its pulsations. When I first saw him, which was, I think, on the day after his admission, he complained of pain, acute pain, in the whole of the lower portion of the left side of the chest, increased by inspiration; he also complained of pain over the region of the heart: this pain was increased by pressing between the intercostal spaces over the præcordial region: and the pain was also equally acute on pressing between the intercostal spaces of the whole of the inferior and posterior portions of the left side of the chest.

Upon examining the chest with the stethescope, respiration was heard over the whole of the anterior and superior parts of it, and was natural; but on the sides and lower portion of the thorax it was more indistinct, and quite at the inferior part no respiration could be heard. I endeavoured to ascertain if there was œgophony, but was unable to discover this sound. Still the voice was evidently altered, being more shrill, though it was unlike that of Punch, which is called œgophony. When he lay upon the left side, respiration could be heard on the lowest portion of the left, therefore I had no hesitation in saying there was effusion into the cavity of the pleura; and, upon percussion, a dull sound was emitted from these parts, further showing that effusion was present. Upon applying the stethescope over the region of the heart, the impulse was strong, although the sound of the action of the heart was not so loud as natural; yet the impulse was violent against the parietes of the chest; and with each systole of the heart a loud bellows sound was heard On percussion over this region a dull sound was emitted over a larger space than usual, though not much, still more than the ordinary limits of the heart. From these symptoms I had not the least hesitation in saying there was disease of the heart, that it had become hypertrophied, and also that there was disease of the valves, co-existing with the effusion in the chest, and

dropsy of the whole body. A few days afterwards, upon examining the chest, I heard distinctly the bellows sound over the region of the left ventricle; and, a little higher up, about the centre of the sternum, over the arch of the aorta, a considerably louder bellows sound than that over the region of the ventricle. A purring thrill was distinctly felt by placing the hand over the arch of the aorta and the innominata, and equally distinct upon placing the hand over the carotids. At this time I stated to some of the gentlemen who were accompanying me, that there was disease of the whole of the lining membrane of the aorta, and, indeed, of many of its branches, as well as the aortic valves themselves; and I have no doubt but some of you recollect my making that observation. The treatment at first consisted in bleeding: and I gave him two grains of calomel, combined with a quarter of a grain of tartar emetic, every six hours, and ordered one grain of elaterium to be given the next morning. After this I bled him again; his pulse became fuller, was 96 in a minute, and bore some pressure. The blood first drawn was neither cupped nor buffed, which is often the case, even if active inflammation be going on. It will not put on this appearance if it does not come in a full stream from the arm, which, I recollect, was mentioned to me by one of the gentlemen to be the case in this instance. Subsequently to this I had him bled twice, the blood each time being buffed and cupped: so, from the 28th of Dec. to the 5th of January he was bled three times, having lost in the whole about thirty-six ounces. After this I did not order him to be bled again. His mouth became sore, and the anasarca decreased; and, on one occasion, I distinctly heard the natural respiratory murmur at the lowest portion of either part of the chest. As soon as the mouth was affected by the mercury, the pain in his side ceased, and the tenderness, on pressure, between the intercostal spaces went away, and he could lie on either side. The mercury was now omitted, and I gave him half a grain of the powder of digitalis every six hours. The anasarca continued to decrease; his urine increased in quantity, and he could now lie upon both sides without much inconvenience. I now omitted the powder of digitalis, and gave him ten minims of the tincture, combined with twenty drops of the tincture of squills, and a scruple of the acetate of potass, which he was directed to take three times a day. Under this mode of treatment he became quite free from pain; his urine was very copious, but still exceedingly albuminous; his pulse became slower, but not intermitting; and the anasarca continued to decrease; still, however, there were manifest symptoms of effusion present, especially in the pleura. On the 18th, a slight degree of delirium came on; and I am told that he complained of some degree of pain in his head. His pulse at this time was 88, rather small and sharp. The digitalis was still continued, and on the morning of the 19th his pulse suddenly fell from 88 to 52, but still it was regular, soft, and full. He took one dose of his medicine, containing ten minims of the tincture of digitalis, in the morning, but none afterwards, and during the time I was in the ward, between the hours of one and two o'clock, while he was sitting dressed at the fire-side, suddenly fell back, screamed two or three times, and, in the course of three minutes from the time he fell, was dead. On examining his body after death (commencing first with the head), we found the brain exceedingly bloodless, and the whole of its substance much firmer than natural. Between two and three ounces of fluid were found in the lateral ventricles; there was some slight opacity of the arachnoid membranes, and that portion of it lining the two ventricles was so much thickened, as to be capable of bearing very considerable extension without laceration. Then proceeding to the examination of the chest, we found the lungs healthy, they crepitated distinctly in every part: full three pints of fluid were found in the cavity of the pleura, each side containing about a pint and a half; then going to the heart, there was no inflammation of the pericardium, but this bag was found perfectly healthy, the substance of the heart was exceedingly thickened, or hypertrophied, the left ventricle in particular. It struck me, at first sight, that the cavity of the heart was diminished in size, but, upon a more attentive examination, I found the cavity of the left ventricle about the usual size; its walls, however, were full three-quarters of an inch in thickness, and the carnæ columnæ were hypertrophied, as you can see from the preparation *(showing it)*. Then examining the aortic valves, as you see, there are very considerable bony depositions, which must have destroyed their function, so it was impossible for them to perform their office. You here perceive all the three valves have become completely ossified, from ossific deposit *(pointing to the diseased valves)*. Well, then, upon examining the aorta, you perceive patches of white matter, some soft, others of the consistence of cartilage; some again of these you will observe, if you feel them, have become completely ossified. Here you observe, just before the origin of the innominata, are several patches, and here you perceive, quite at the commencement of it, it is surrounded by osseous matter, *(showing the different parts)*, it might be cartilage, at least some of it, but I think, if you feel it, you will agree with me, in saying it is perfect bone. These patches are not confined, as you will observe, to any particular part of the aorta, but exist both in the ascending and descending portion of it. This substance appears at first to be deposited in small, white, soft patches, of which there are several, then become harder, then cartilaginous, and at last bone; for instance, the valves, as I have pointed out, have become completely ossified; then, if you look here, you will find these ossific depositions

have extended to the descending aorta. You see, then, the left ventricle is greatly hypertrophied; there is also a slight degree of thickening of the right auricle, and of the right ventricle; decidedly here the right auricle is thickened *(pointing to it)*; I should say there was also some degree of thickening of the mitral valve, yet not sufficient to impede its function, and, at the margin of the mitral valve, you may observe also some of the same white depositions, which, in all probability, would have become ossified: still, however, there is not sufficient disease to prevent it from shutting close. Now, throughout the whole course of the arteries some of these depositions, though not exactly osseous, and some firmer than others may be found: when examining the brain, which we did very minutely, one of these small white depositions of matter was found in one of the arterial ramifications of that organ, which I have not the least doubt would also have become ossified; and, in all probability, we shall find the same deposition in the subclavian and carotid arteries *(slitting them up)*. Yes, you observe, at the beginning of the subclavian artery, the same thing has taken place, and along the tube, several of these depositions are seen, though some are very slight. There was a considerable increase of interstitial deposit of white matter throughout the whole substance of the liver, forming what is called a nutmeg liver, common to hard drinkers. The spleen was firmer than natural, it cut quite as firmly as a healthy liver would: there was also some slight thickening of its peritoneal coat, with some white depositions upon it, which most probably would likewise have become cartilaginous. The kidneys were much firmer than natural, and presented that species of disease which Dr. Bright considers as the cause of albuminous urine. I have no doubt but that, when they are in this state, the urine is always albuminous; but I am satisfied, that without this disease of the kidney, there may be albuminous urine: nothing is more common than to find the urine albuminous in cases of inflammatory dropsy, arising from cold, and also in that dropsy which occurs as the sequela of scarlatina. Yet, as the inflammatory action subsides, the albumen disappears from the urine, and the patient gets well. I frequently see instances of this, both in public and in private practice. Therefore, I cannot think, that in those cases of dropsy, where the urine is albuminous, there is necessarily disease of the kidney; for, as soon as the inflammation subsides, the dropsy generally decreases, and the albumen is ceased to be excreted by the kidney, consequently, in those cases, it is right to infer there is no organic disease of the kidney: these, I believe, are all the appearances, worthy of remark, observed in this case at the post-mortem examination. With regard to the origin of this disease of the heart, I think that it first began in the aortic valves, and the aorta itself. Of course, such extensive disease of the valves must have impeded the progress of blood from the left ventricle, and I believe the hypertrophy was caused by the effort of the ventricle to propel the blood through the partially obstructed passage, thus endeavouring to overcome the resistance offered by the diseased valves. You will observe, that the hypertrophy of the left ventricle is much greater than that of the right, which is in perfect accordance with the superior degree of muscular power that it naturally possesses; but we generally find, when there is such extensive disease of the valves of the left side, with hypertrophy of the left ventricle, that the right is more or less thickened. For, if the passage of blood through the aortic valves be impeded, of course congestion in some measure must take place in the pulmonary veins, and there will be a retardation of the whole pulmonary circulation; the lungs will feel this, and hence we find this man had cough; then, as the left ventricle requires more power than usual to overcome the disease of the valves, in propelling the blood through them, so the right ventricle requires additional force to send it into the pulmonary artery. Now, I think there cannot be the least doubt, but that the disease first began in the valves, and this I think frequently to be the case, although in giving this opinion I differ from a physician who has recently written one of the best works on diseases of the heart, a work which it is impossible to speak too highly of, but who appears to consider that the hypertrophy of the ventricles most commonly precedes disease of the valves.

Well then, you will observe, that I ordered him to be bled, and I did so because, though it was evident he was suffering under organic disease of the heart and aorta, which did not admit of being cured, still it was equally evident that he was suffering under inflammation of the pleura, and I did not hesitate to repeat that bleeding till I was assured that no very active inflammation any longer existed; at the same time I would remind you, that he was not bled after the 5th of January, at which time he was obliged to keep his bed; and that he did not die until the 19th, having been able to get up and move about his ward with freedom for several days previously. I ordered him the mercury as being the most efficient medicinal remedy for lessening inflammation of serous tissues, and promoting the absorption of effusion. After his system had become affected by the mercury, I ordered him the digitalis in powder, for the purpose of restraining the action of the heart, and with the hope of its augmenting the secretion of urine; this to some extent it did, but as I wished still further to increase the action of the kidney, I omitted the digitalis in powder and gave him the tincture combined with the squill and the acetate of potass, which combination succeeded in increasing, very materially, the secretion of urine, and diminishing what little anasarca remained. You will find that, in these structural diseases of the heart,

diuretics are often of great use as palliative means (where they do act upon the kidney), by taking off from the blood a large portion of its watery particles, and thereby diminishing the volume throughout the whole of the circulatory mass, and are more especially useful in those cases where we fear to increase debility by the abstraction of blood. To what then are we to attribute the suddenness of his death? Certainly neither to the abstraction of blood, nor to any debility induced by the mercury he had been taking, for he was no longer under its influence. Could it be attributable to the digitalis? I should say certainly not; he had taken none since 7 o'clock in the morning of the day on which he died in the afternoon, and his pulse, although it had fallen from 88, which it was on the previous day, was full, regular, and possessed sufficient strength. Was then the effusion into the ventricles of the brain sufficient to account for his sudden death? Here, again, I should say no, because there was no proof of that effusion having recently taken place, while from the very thickened state of the arachnoid membrane there was every reason to believe that it had existed some considerable time, and that the brain, therefore, had been enabled to accommodate itself to the pressure; and he died too quickly for his death, in my opinion, to be ascribed to apoplexy. I believe then his death to be ascribable to the disease of the heart, its suddenly ceasing to become capable of performing its functions; at least I have seen many similar instances of sudden death take place where there was no effusion into the ventricles of the brain, and where the individual had not been taking any digitalis; and it was only last week that I was consulted, on a similar case, in private practice, and having warned the relatives that they might expect he would die suddenly upon making any exertion, such actually occurred a few days afterwards, while the patient was on the water-closet.

Among the eight men who were discharged, there were four cases of rheumatism; one of sciatica; one of synochus; one of paralysis agitans partialis; one of disease of the heart, hypertrophy, with dilatation, bronchitis, effusion into the chest, with general anasarca, who had been in the hospital some months, and who, under bleeding, mercury, and diuretics, had lost the bronchitis. The hydrothorax and anasarca was so much recovered as to feel enabled to resume his occupation, which fortunately happened to be of a sedentary nature, of course the disease of the heart still remaining; and, as he was anxious to go out, I permitted him to do so, though I do not doubt but that his dropsical symptoms will ere long return.

Of the cases of rheumatism, two were in Jacob's Ward; the first, Thomas Walker, was rather a severe case, affecting his joints, attended with swelling, increased heat and redness, and more especially affecting the intercostal muscles, accompanied by dyspnœa and cough, with a full, strong, and hard pulse; all the symptoms, however, readily yielding to bleeding from the arm, cupping from the chest, and colchicum. Where the intercostal muscles are affected with rheumatic inflammation, I never hesitate to bleed freely, both generally and locally, for fear it should extend to the heart or pericardium.

From the same ward John Rivers was also discharged. Said, when he was admitted, to be suffering under rheumatism, but of so slight a nature that I did not think it necessary to order anything more for him than a warm bath and some house physic occasionally.

The other two cases of rheumatism were in King's Ward. John Francis was admitted on the 19th of January, and was rather an acute case: was considerably relieved by being bled and taking colchicum, but chose to go out at the end of a few days, being dissatisfied with his diet.

The fourth was a very acute case. John Home was admitted on the 13th December, having been ill three or four days after exposure to cold, and having formerly, at different periods, been the subject of two different attacks of rheumatism. In his case there was exquisite pain, with increased heat, redness, and swelling of the joints, hands, wrists, elbows, shoulders, jaws, ancles, and knees; great heat of skin, without any perspiration; great thirst, loaded tongue, constipated bowels; pulse 108, full and strong, and unable to get any sleep at night. He was well purged by a dose of calomel and castor oil; a pound of blood was taken from his arm; ℥ss. of the wine of colchicum was directed to be taken three times a day, with a scruple of carbonate of magnesia. I am usually in the habit, as you know, of combining the colchicum with an alkaline earth, because I find that, so combined, the colchicum is less likely to nauseate or irritate the stomach. You will also remember that, in this case, I ordered our evaporating spirit lotion to be constantly applied to the inflamed joints, from which he experienced great relief. I never hesitate to use the cold lotion in those cases of rheumatism which are unattended by perspiration, and have invariably found the patients express themselves much relieved by its application; but I certainly would not use it where there was that perspiration which we so frequently find in acute rheumatism. After the bleeding, he had some sleep that night for the first time; but, at my next visit, finding that there was considerable inflammation in some of the joints, and the pulse still continuing very strong, he was again bled ten ounces; continued the colchicum, and was ordered ten grains of Dover's powders every night at bed-time. After the second bleeding, he began speedily to recover, and was enabled to quit his bed for a few hours in the day, when he was suddenly attacked with shivering, pain of his head, and vomiting, his throat quickly became sore, and when I saw him, I found his tonsils much inflamed and

enlarged, and with several aphthous specks upon them; great heat of skin; tongue loaded, but the papillæ prominent, and shooting through the white fur; there was no irruption on his skin, but still, from the appearance of the tongue and throat, and from the circumstance of there having been a very severe case of scarlatina during the preceding week in the opposite bed to his, I had no hesitation in considering it as being that disease, as it frequently occurs in adults unattended by any irruption; and as the white fur vanished from the tonge, it manifested the red raw beef-steak character, so peculiar to that disease, with the prominent papillæ. As his throat was very much inflamed, leeches were applied to the neck, and a blister; he took some saline medicine, and at the expiration of a week he was convalescent. When the symptoms of scarlatina had subsided, I found that what little rheumatic affection had previously remained had entirely disappeared, and he was presented quite well on the 14th of January.

Now, as regards the saline medicine, I am not quite sure whether I myself ordered it or not; if I did, it was merely for the sake of mitigating his thirst, by giving it him in a state of effervescence, and for the purpose of tranquillizing his mind, and that he might suppose he was taking medicines; satisfied that, his bowels being well open, the only beneficial treatment consisted in the leeches and blister.

The case of sciatica was also in King's Ward. George Beckwith, a stonemason, ætat. 26, was admitted Dec. 20th (having been ill three months), complaining of severe pain in the left hip, extending down the back part of the thigh to the ham, and into the foot; was unable to walk, and the attempt to stand upon that leg caused great pain; there was a sensation of great numbness, both in the foot and leg; the limb was considerably emaciated; both the pain and numbness were much increased by pressure over the glutæus maximus, between the tuber of the ischium and trochanter; the same effect was equally produced by pressing on the nerve in the popliteal space, by which the pain and numbness were then both in the foot and hip; he had also considerable pain across the loins (the pain was worse at night, and deprived him of sleep). Now, this was clearly a case of rheumatic inflammation affecting the sciatic nerve; he attributed it to having strained his back five months ago; but you will readily see that the pain in the loins was of the same character, when you call to mind that the sciatic nerve takes its origin from the fourth and fifth lumbar, and the first, second, and third sacral nerves. He had been cupped from the loins, and had taken an aperient before I saw him, which had considerably relieved the pain of his back, but that of the hip and leg remained just the same. I had him cupped over the glutæus to ten ounces, and ordered him cal. gr. iij. and opii, gr. j. every night. The pain was much lessened by the cupping and the blister, and he continued daily to improve, although suffering considerable pain, his sleep being now very tolerable.

On the 2d of January his mouth became sore, and he had no longer any pain. I omitted to state to you, that on his admission his appearance was very pallid and cachectic; when, therefore, his mouth had recovered from the influence of the mercury, I ordered him two drachms of the subcarbonate of iron three times a day, merely as a tonic to restore the general strength of his system. Now this was merely a case of rheumatic inflammation attacking the nerve or its neurilema, or both perhaps. And in these cases you will find no treatment so effectual as mercury, given to the affecting of the mouth, in conjunction with local depletion and counter-irritation, either by means of blisters or irritating liniments.

These cases are commonly cured (though of long standing) much more quickly in our hospitals than in private practice, because private patients are generally unwilling to submit to the frequent repetition of cupping, leeching, or blistering, and often look with horror at the system being put slightly under the influence of mercury. I have often tried colchicum in these cases, as well as other remedies, but have found none so effectual as mercury.

After taking the carbonate of iron some little time, his general health and appearance was so much improved that he felt himself capable of working, and I dismissed him with a supply to take with him out of the hospital, quite free from any affection of the nerve.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832-33.

LECTURE IX.

Nitrate of Silver in Diarrhœa—Effects of on the Brain.

Gentlemen,—You have seen me employ the nitrate of silver in the case of a man above stairs labouring under phthisical diarrhœa: I wish now to offer a few remarks on the use of this medicine. Where diarrhœa occurs in phthisis you generally find it treated by the exhibition of chalk mixture, with tincture of opium and kino; but this combination goes too far: it not only stops the diarrhœa, but also brings on the sweats in an aggravated degree. The nitrate of silver is much better; and nothing, in my opinion, arrests the colliquative diarrhœa which attends consumption in a more satisfactory manner, than a grain of the nitrate of silver given three or four times a day. It is true, that you cannot check the diarrhœa completely without having some sweating succeeding it, for one is vicarious with the other; but the nitrate of silver removes the diarrhœa without producing, like opium, any increased tendency to perspiration, and in this way is much more valuable than

the former combination. Probably the sulphate of copper would answer the purpose equally well. I speak not here of the diarrhœa which is attended with ulceration of the bowels, as in such cases the latter remedies are not indicated. I am persuaded, however, that many cases of diarrhœa, particularly in incipient phthisis, arise from what may be called *sweating of the bowels* (the colliquative diarrhœa of the ancients), and not from ulceration of the Peyerian glands, as supposed by most modern physicians, and that the skin and mucous surface of the intestines may alternately perform analogous functions. As to the diarrhœa which is connected with ulceration, and accompanied by a tenderness of the abdomen on pressure, it is generally in the second and third stages of phthisis that it occurs.

It is remarkable, that nitrate of silver also exerts a decided influence over the circulation of the brain. The young man who has been taking it in this hospital for epilepsy, in half an hour after using it, complained of headache; and a similar effect has been felt this morning after using the liquor arsenicalis, thus showing the action of those medicines over the circulation and nervous system. Arsenic, when it affects the system, produces sickness of stomach and head-ache. Dr. Elliotson thinks these bad effects may be counteracted by using hydrocyanic acid in combination with it; this I do not know, but am aware of the great value of a combination of remedies. I think, too, that it should form an important part of our studies to be acquainted with the best mode of increasing the utility of our remedial agents, and neutralizing their bad effects. Nitrate of silver, you perceive, in this boy's case, produced head-ache. The same occurrence took place with a lady, a private patient of mine, who had a spasmodic affection of the muscles of the face, for which she was prescribed the nitrate of silver; for, after taking three grains, she began to complain of headache. Sulphate of quinine, when used in large doses, produces the same phenomena. There is another curious fact connected with this remedy, which I shall mention. A gentleman, one day, in passing through the street, found his head growing light, and his sight failing him, and was affected so much that he was nearly falling down. He went home immediately as well as he could, and lay down on a sofa until the vertigo subsided. These symptoms, however, recurred so frequently, that he wished to have medical advice, and sent for me. I found him lying on the sofa; his circulation somewhat increased, but without any manifest febrile affection, and little or no head-ache, the principal symptom complained of being a strong vertiginous sensation whenever he attempted to raise himself into the sitting or erect posture. He was rather of a pale complexion, and not by any means of a robust habit. However, thinking his disorder might be an insidious tendency of blood to the head, I leeched and purged him, and continued the use of these and similar means until he got tired of me. After some time he got well, and then I accidentally found out what was the true cause of the cerebral symptoms. He had been in the daily habit of taking sulphate of quinine for several months, and had left it off suddenly a few weeks before I saw him, and the vertiginous symptoms were produced by the want of this remedy, to which the constitution had become accustomed. I have seen it remarked in some work, that the practitioners in India have observed this effect of sulphate of quinine on the circulation, and have applied this observation to practice. What I ought to have done in this case was, instead of leeching and purging, to administer stimulants, as the aromatic spirit of ammonia, with camphor mixture and black drop; this, I am confident, with half a grain of sulphate of quinine three times a day, would have cured him and been useful to me. This effect of sulphate of quinine on the circulation of the brain explains an occurrence long known to practitioners,—that if tonics be long continued, the persons using them are apt to fall down suddenly in a fit of apoplexy. The Portland powder, which I mentioned before, will arrest a fit of the gout, and this you will find remarked in several works on materia medica; but you will also find, that persons long accustomed to its use will, at a certain period of life, be cut off unexpectedly by an apoplectic attack. You see, then, that nitrate of silver, arsenic, and sulphate of quinine, have a strong tendency to derange the cerebral circulation, particularly when their employment has become a daily habit; and I trust you will hold this fact in memory.

Gentlemen, there is a man in the Chronic Ward to whose case I have before directed your attention, and it would be superfluous, perhaps, to make any additional observations on the nature of his disease. The poor fellow was a day labourer, working for twelve hours up to his knees in water, being employed in what is called scooping or baling out water in a quarry, a practice which exhibits a very imperfect mechanism indeed, and I believe it is followed in this country alone. As this man, while thus engaged, was under the influence of mercury, which he had been taking for a syphilitic complaint, it was natural that he should suffer. After some time he got pains in the leg, soles of the feet, toes, and ankle joints, attended with a loss of power, and he now walks with much difficulty, putting down each foot cautiously, by first planting his toes and then letting the heel gradually touch the ground. Observe, these pains were produced by obvious causes: cold acting on the extremities at a time when the constitution was weakened by mercury, and causing, first, pain, then loss of feeling, and then, sensation returning, pain again and loss of power. Here the degree of paralysis is to be attributed to the continued application of intense cold. You

have frequently observed, that on a very cold day the diminished temperature acts in such a manner on the hands as to produce a numbness and temporary paralysis; and where the diminution is extreme, this may be, in some cases, permanent. I do not look on this kind of paralysis as depending on inflammation of the neurilema, but as an original impression of cold on the nervous extremities. The man I speak of had, as you may have noticed, enlargement of the liver, and inflammation of the left lung, in addition to his paralytic affection. There was some difficulty at first in making a correct diagnosis respecting the pulmonary disease, as it was not very evident whether it was consumptive and scrofulous, or whether it was characterized by the phenomena of common pneumonic inflammation; for that is the whole and only distinction between the inflammatory state of the lung: one is scrofulous, the other common. We were at that time uncertain as to results, and it is needless to repeat the diagnosis. We proceeded, however, on the supposition that the disease was pneumonia, directed our treatment accordingly, and the man has recovered. We first used leeches, then cupping over the inflamed part of the lung, and finally a seton. Shortly afterwards we found another portion of the lung inflamed in the vicinity of the liver, to which we also directed our local remedies, and were successful in removing it. We next attacked the inflammatory affection of the liver with mercury, and as soon as the mercury had affected the mouth and reduced the inflammation to a chronic state, we abandoned its use and had recourse to iodine to remove the enlargement. You perceive, the course we pursued was to lessen inflammation and engorgement, by the agency of mercury, and then to reduce the size of the liver to its natural dimensions by means of iodine. We used iodine also with a double intention, because it has been found serviceable in paralysis, and other affections of the nervous system, though I believe it has not been fully determined as yet, whether iodine is prescribed with more satisfactory results in those cases of paralysis which depend on an affection of the central parts of the nervous system, or on disease of the nervous extremities themselves. When the congestion, which accompanies an apoplectic attack, has been removed, iodine is employed on the principle of producing absorption of the coagulum, and thereby lessening the paralysis which depends on its pressure. I also entertain some opinion of its utility in the paralysis which arises from affections of the peripheral extremities of the nerves, though I have not sufficient experience of its effects in such cases, to enable me to stamp it with an unequivocal value. You noticed in this man's case, that the lung was inflamed in close juxtaposition with the liver; this is considered by some to be an inflammation of continuity, and to be extended from one organ to the other. This may be true, but it is not often met with, for you remember two cases we had lately in hospital, where the co-existent inflammation of the liver and lung was on opposite sides.

A few remarks now on a case of leaping, or thrilling of the arteries, in a patient in the female ward, in whom this phenomenon is singularly striking, because it exists in an extreme degree in one arm, and not at all in the other. Dr. Corrigan, in his very ingenious essay on permanent patency of the aortic valves, has fixed on this leaping of the arteries, as a diagnostic sign of the disease of the aortic valves which he describes. You can see this thrilling in the woman's arm, and have a distinct conception of it by placing your finger over the radial artery of the affected arm. I have paid some attention to this symptom, and have seen many cases of it. As Dr. Corrigan's observations on this subject are of great importance, I shall give them in his own words:—

"What is deficient in general symptoms from their obscurity is, however, amply supplied by the certainty of the physical and stethoscopic signs, which may be referred to the three following indications. 1st. Visible pulsation of the arteries of the head and superior extremities. 2d. *Bruit de soufflet* in the ascending aorta, in the carotids, and subclavians. 3d. *Bruit de soufflet* and *fremissement*, or a peculiar rushing thrill felt by the finger, in the carotids and subclavians. In conjunction with these may be reckoned the pulse, which is invariably full. When a patient affected by the disease is stripped, the arterial trunks of the head, neck, and superior extremities, immediately catch the eye by their singular pulsation. At each diastole, the subclavian, carotid, temporal, brachial, and in some cases even the palmar arteries, are suddenly thrown from their bed, bounding up under the skin. The pulsations of these arteries may be observed in a healthy person through a considerable portion of their tract, and become still more marked after exercise or exertion; but, in the disease now under consideration, the degree to which the vessels are thrown out is excessive. Though a moment before unmarked, they are at each pulsation thrown out on the surface in the strongest relief. From its singular and striking appearance, the name of *visible pulsation* is given to this beating of the arteries. It is accompanied with *bruit de soufflet* in the ascending aorta, carotids, and subclavians; and in the carotids and subclavians, where they can be examined by the finger, there is felt *fremissement*, or the peculiar rushing thrill, accompanying with *bruit de soufflet* each diastole of these vessels. These three signs are so intimately connected with the pathological causes of the disease, and arise so directly from the mechanical inadequacy of the valves, that they afford unerring indications of the nature of the disease. In order to understand their value, it is necessary to consider their connexion with the cause by which they are produced. The visible pulsation of the arteries of the neck, &c. may be first examined.

"In the perfect state of the mechanism at the mouth of the aorta, the semilunar valves, immediately after each contraction of the ventricle, are thrown back across the mouth of the aorta by the pressure of the blood beyond them, and when adequate to their function of closing the mouth of this vessel, they retain in the aorta the blood sent in from the ventricle, thus keeping the aorta and larger vessels distended. These vessels consequently preserve nearly the same bulk during their systole and diastole. But when the semilunar valves, from any of the causes enumerated, become incapable of closing the mouth of the aorta, then after each contraction of the ventricle, a portion of the blood just sent into the aorta, greater or less, according to the degree of the inadequacy of the valves, returns back into the ventricle. Hence, the ascending aorta and arteries arising from it, pouring back a portion of their contained blood, become, after each contraction of the ventricle, flaccid, or lessened in their diameter. While they are in this state, the ventricle again contracts, and impels quickly into these vessels a quantity of blood, which suddenly and greatly dilates them. The *diastole* of these vessels is thus marked by so sudden and so great an increase of size as to present the visible pulsation which constitutes one of the signs of the disease."

A case was lately under the care of Dr. Stokes and myself, in which the phenomena above-mentioned, namely *bruit de soufflet*, leaping of the arteries, &c. were extremely well marked; but, on dissection, we could not detect any disease whatever of the aortic valves, except two ossified spots, which were situated along the fixed edge of those valves, nor could we find any change or lesion of their structure, which would bear out the opinions of Dr. Corrigan. We slit up the aorta above the valves, and poured into it a quantity of water, and found that they came into such close approximation as to leave vacant only a space of about the size of a pin's head, through which the water oozed out very slowly. So that, when we remember the state of those parts after death, we may conclude, with some degree of probability, that during life there would be scarcely any opening at all. At all events, it is quite evident, that no such lesion of the valves existed as those described and figured by Dr. Corrigan. I think, therefore, that I am authorized in stating, that the symptoms which are given by Dr. Corrigan, as diagnostic of permanent patency of the aortic valves, are extremely uncertain, and that he has established his diagnostic marks too hastily. The case we have at present in the house, where there is leaping of the arteries in one arm but not in the other, is a refutation of this opinion. I have more than once seen this occur, have a brief existence of three or four days, and then disappear. Some time since, I attended a lady in Parliament-street, who was also visited by Dr. Ireland and Mr. Crampton. She had a violent attack of peritonitis, and, during the course of her illness, we observed this leaping of the arteries, accompanied by a visible pulsation in the veins on the back of the hand, yet both entirely ceased when the inflammation subsided. These facts are, I think, sufficient to throw a shade of doubt on Dr. Corrigan's opinions. I do not, however, mean, in the slightest degree, to undervalue his very ingenious communication; he has treated of a new and difficult subject, and his essay is highly valuable for its able and well digested practical remarks.

I will now read for you the notes of a case of intermittent fever, taken by Mr. Power:—

"Mary Gannon, æt. suæ 44, was attacked by intermittent fever about the middle of September last. The paroxysms occurred twice every day, one in the morning, the other in the afternoon, for the space of ten days, after which, owing to medical treatment, the evening one disappeared. On the 10th of October she was admitted into the Meath Hospital, and was placed under the care of Dr. Stokes, who prescribed small doses of sulphate of quinine, under the use of which the fit became tertian, but soon afterwards returned to the quotidian form. On the 1st of November she became a patient of Dr. Graves, and was put on large doses of the sulphate of quinine. On the 7th of the same month, the fit again assumed the tertian form, in which state it continued until the 17th, although the dose of quinine had been increased to a scruple and a half in the day. She was then blooded to ℥xviij., by which the duration of the paroxysm was lessened, and the interval between it and the succeeding one, increased by twelve hours. She was again blooded, and the fit became quartan. Venesection was employed for three times more, but without any other sensible effect than a curtailment of the duration of the existing paroxysm. Her strength now became reduced, and she was ordered to take four drops of the liquor arsenicalis in half an ounce of mint water three times a day. Since she commenced taking the arsenic, the violence of the paroxysms has been gradually subsiding, and strength and appetite are returning; at present, the fit presents scarcely any other characters than those of a slight shivering."

Let me make a few remarks on this case. In the first place, you should look to the definition of a quartan ague. According to Cullen, this consists of "paroxysmi *similes* intervallo septuaginta duarum circiter horarum; accessionibus *pomeridianis*," that is to say, the attacks must be similar, there must be an interval of 72 hours between them, and the fit is to come on in the afternoon. Let us examine how far the characters of the present case coincide with this definition. Latterly, she had seven attacks with a precise interval of 72 hours; in the next place, the attacks were similar; so far so good; but the accessions of her paroxysms were in the forenoon and not in the afternoon, for they generally came on about eight o'clock in the morning, and in this re-

spect accommodated themselves to our convenience, for we could be here to witness them. It is very true, that we generally find the paroxysm of quotidian in the morning, of tertian in the middle of the day, and of quartan in the evening, and also that one may pass into the other, but to this I do not attach much importance. Here the disease evidently terminated by becoming quartan. A question arises as to what was the nature of the fever in the commencement? Was it any variety of quartan, that is, was it quartan disguised under the type of any other species of intermittent? In the beginning, she had two paroxysms every day, constituting what has been termed the quotidiana duplex, a disease which is common enough, though it has not been noticed by Cullen in his Nosology. The nearest approach which the first form of our case makes to the acknowledged quartan of authors, is to the quartana triplex, where we have the fit coming on three times a day, with every fourth paroxysm similar. But you perceive, plainly, that Gannon's fever, in its first form, is not reconcilable to any known type of quartan ague. Now, what was the effect of the remedies employed? First, to make it assume the form of a simple quotidian, and as a still further improvement, resolved this into a *tertian*. Here we have an argument against the supposition of a concealed quartan, for an interval of 48 cannot, by doubling, be converted into an interval of 72. But the effect of remedies, nevertheless, produced this antinosological conversion, for the first bleeding in the cold stage made an addition of 12 hours to the tertian interval; and a second bleeding added another twelve hours, and then we had the quotidian interval completed. This was indeed *a bit and-bit reform* of a double quotidian into a simple quartan. Let us review the length of the intervals in a series of numbers. First; it was 12 hours for the space of 10 days; next, 24 hours for several days; then, 48 hours for several days; again, 24 hours for several days, then 48 for several days, then 60 for one day, and, lastly, 72 for seven days. From this, I think, we may conclude, that the *unit* from which we ought to set out in calculating intervals should be twelve hours between the accession of one attack and the accession of the next. This is the *atom* on which all our computations must be founded, for its multiples include all the varieties of intermittent fever. It would appear, that instances, where the fit comes on earlier than was expected, or is postponed beyond the customary period, would go to invalidate what I have mentioned. Such cases, however, I look upon as only transition stages to more permanent varieties. In many cases of quotidian, it has been observed by nosologists, that every second fit is more severe, and hence they have termed this form the tertiana duplex. The chief argument in support of this opinion of quotidians becoming tertians is, that under the salutary influence of our remedies they become tertians before they cease altogether. In answer to this, it may be observed, first, that this is not always the case; secondly, when it does take place, it is because the days of the least severe fits are of course those on which they soonest cease, in consequence of the exhibition of bark, or sulphate of quinine, for it often happens that these medicines do not remove the aguish fits entirely and at once, but gradually, and as it were, by wearing down the paroxysms. Thus, then, a quotidian, such as we have described, must, if gradually cured, before a complete cure is effected, observe the tertian interval; but still it is not a true tertian at any period of its duration. Hectic fever, notoriously, has intervals of 12 hours, and it may be observed, that many circumstances corroborate the opinion, that in naming and classifying diseases, it is more consonant with the laws that regulate the diurnal revolutions of the animal economy, to use, as our period, 12 hours, whose multiples give rise to the different intervals of agues, than to assume 24 hours, as the term from which we are to commence our calculations. Thus the state of the pulse, according to the late laborious investigations of Nick, have shown, that a regular revolution, as to its frequency, takes place every twelve hours, and the same result has been made with regard to the intensity of the respiratory process. We all know that there is a considerable difference between the nervous and calorific powers of the body during the twelve hours we spend in active employment and awake, and those which are chiefly passed in tranquillity and repose.

As the average period of day and night respectively is twelve hours, in the same manner equivalent spaces of time seem to be destined for the successive and alternating revolutions of the living system. It would be extremely interesting to consider what influence their adoption might have in our calculations concerning the crisis of continued fevers. We would not then count three days and a half, but seven half days; we would not say seven days, but fourteen half days. If this method were adopted, many of the apparent anomalous critical effects and critical terminations, in continued fevers, would, I have no doubt, be found strictly conformable to some regular law of periodicity. To arrive at a knowledge of this law would be of the greatest importance, and would tend much to render our knowledge of fevers more accurate, and our treatment more efficacious. Those who entirely deny the critical period must be either very superficial observers or very indifferent practitioners. In private practice, where the precise commencement of the attack can be ascertained, a *crisis*, or an obvious attempt at a crisis, takes place, often on the reputed critical days, occasionally on others; and if the treatment be judicious, it seldom happens that a fever teminates without either. Within the last year I have seen two cases, in which decided and perfect crisis took place on the 42d

day. In another case, a salutary crisis took place on the 35th day. The first of these cases I saw along with Dr. Stokes; the second, with Dr. Plant; the third, with Mr. Rumley. In another case, which I attended with Mr. Kirby, there was an obvious but unsuccessful effort at crisis on the 7th, 14th, 21st, 28th, and 35th days.

I must admit that I have seen perfect crisis on days not reputed critical; but I am convinced, that if the method of counting by half days and not by days were adopted, the exceptions to the occurrence of crisis would be much less numerous. The nature of crisis has never, I think, been truly explained. To me it appears evident, that all the phenomena which attend this curious change prove, that when a continued fever terminates by crisis, *it is by being converted into a fever of a new type and shorter duration.* Well-marked crisis comes on almost like a fit of the ague; it is ushered in by great collapse, coldness, and even sometimes by rigor. This is succeeded by a hot fit, and that again by a sweating stage, copious deposition in the urine, &c. and then the patient is found free from fever. Is it not probable, therefore, that the crisis is not merely the termination of the former fever, but a new fever, as it were, superadded to it for the purpose of exciting a change in the system, attended by such a powerful action of another kind, that the former chain of morbid actions is broken, and the tendency of the new fever to terminate in health is thereby allowed to prevail.

To many, I am aware, what I have said may seem fanciful, but to a close and candid observer of nature this hypothesis may not appear altogether unfounded.

I shall not detain you, gentlemen, in making any remarks on the treatment pursued in Gannon's case. You have seen how the sulphate of quinine changed the type of the fever, and you observed how completely the *liquor arsenicalis* succeeded in removing the disease, after other remedies had failed. It is to be recollected, however, that considerable advantage was derived from venesection in the cold stage, and it is probable that this treatment by the lancet was a useful preparation for that by arsenic. It has been supposed that bleeding, during the cold stage of ague, produces a favourable effect, in consequence of its relieving the internal sanguineous congestion. This hypothesis, however, does not appear well founded, for the utility of venesection is by no means confined to those cases of intermittent fever, whose cold stages are attended by an evident diminution in the external circulation, denoted by a shrunk countenance, cold and pointed nose, and a pale corrugated skin. In such cases it is very reasonable to conclude, that the internal organs must labour under sanguineous congestion, as long as the quantity of blood in the periphery of the body is diminished; but this obvious deviation from the proper balance of the circulation is not observable in every case; and in that related above, the temperature of the external parts was increased at the very moment that the violence of the rigor was greatest, while at the same time the extremities, face, and general surface of the skin appeared to enjoy a more than usually abundant and active circulation. We must, therefore, refer the benefit derived from the venesection to some other cause, most probably its energetic action on the nervous system; it is to this we must attribute its effects in stopping the rigor and lengthening the intermissions.

That the rigor of ague is an affection chiefly depending on the nervous system may be proved by many circumstances, but by none more strongly than by the following fact, quoted from a collection of Notices of Russia, published in the United Service Journal for January, 1833:—

"In Kasan these fevers are quotidian or tertian, very rarely quartan, and they differ from the agues of other countries in this respect, that the patient experiences scarcely any shivering, but feels a violent twitching in the spine, which is soon followed by excessive heat and violent head-ache, during which the pulse beats like a hammer. For this fever, the Russian physicians resort to no other remedy but bark."

The following description of the Russian province, so fertile in ague, is so striking that I shall take the liberty of reading it to you:—

"The summer in this country is further remarkable, inasmuch as from the end of May to the beginning of September, no rain falls, and thunderstorms are extremely rare. This phenomenon is doubtless owing to the flatness of the country. For five hundred miles and more, around Perm and Kasan, there is not a hill of any consequence, and the whole tract from Kiew to Ural, for a breadth of five hundred miles, may be called a plain, only here and there interrupted by ranges of gentle hills. The extraordinary fertility, especially of the government of Kasan, is occasioned by the inundation of the Wolga, which overflows annually at particular seasons, as regularly as the Nile in Egypt, and converts the whole country, to the distance of ten miles or more from its bed, for five or six weeks, into an immense sea. These inundations of the Wolga, and the other large rivers, the Wijätka, the Kama, the Kinel, the Irgis, &c., which discharge themselves into the Wolga, render the countries through which they flow at once lively and fertile. At such seasons you may sail, either for pleasure or upon business, in large two-masted vessels, carrying from six to ten guns, over pastures and corn fields, to the neighbouring towns, which, on this account, are all situated upon heights; and when the waters have withdrawn into their accustomed channels, the ground forsaken by them is covered, often a yard deep, with a fertilising mud, in which, during the hot season, all vegetables grow

rapidly and vigorously as in a hot-house. At the same time pools are left behind in the low grounds, where the water stagnates for several months, becomes putrid and generates malignant fevers in the months of July and August in these otherwise healthy countries. The government of Ufa, particularly, is visited about that time by an intermittent fever, *which attacks the patient every seventh day only*, but is so violent, that it generally proves fatal."

If this account be correct, and indeed there can be little doubt of its accuracy, a new species of ague must be established, and to the quotidian, tertian, and quartan, must be added a fourth type, whose attacks return every seventh day.

In Ireland we seldom meet with cases of ague with paroxysms so violent as to endanger the patient's life. I lately saw, however, a case of this nature. I was sent for in a great hurry to visit a gentleman residing in the neighbourhood of Donnybrook; he had slept well until four o'clock in the morning, when he was awakened by a general feeling of *malaise*, shortly after which he complained of chilliness, some nausea, and head-ache. After these symptoms had continued about an hour, his skin became extremely hot, the pain in the head intense, and drowsiness was complained of, which soon ended in perfect coma, with deep snoring and insensibility; in fact, he appeared to be labouring under a violent apoplectic fit. He seemed to derive much advantage from bleeding and other remedies, and to my surprise was perfectly well when I visited him in the evening. The day but one after, at the same hour, the very same symptoms returned, and were removed by the same remedies. I must confess that I could not explain, in a satisfactory manner, the perfect freedom from all cerebral and paralytic symptoms, after two such violent attacks of apoplexy; but when a third attack came on, I then saw that it was a case of the *tertiana soporosa* of nosologists, and I prevented the return of the fits by the immediate exhibition of large doses of sulphate of quinine.

Numerous remedies have been recommended for the cure of intermittents; but, I believe, those already mentioned, with salicine, piperine, and ilicine, and venesection, in or before the cold fit, are most efficacious.

REMINISCENCES OF AN ARMY MEDICAL OFFICER.

PART I. CHAPTER XII *.

"The great, the important day."
ADDISON'S CATO.

Die duodecimo Septembris, 1810.

[ALL nouns of the fifth declension are of the *feminine* gender, except *dies*, and its compounds, as *meridies*, &c.; but this rule is strictly enjoined only when using the *plural* number, for in the singular it is optional to adhere to the common rule of the declension, or to prefer the exception; the latter is my fancy; but there is a prevalent impression (as witness the diaries of general practitioners) that *dies* can *never* be used in the masculine.]

Upon this day, however (whether *he* or *she*), thirty-six doctors were to be created, as the usage of language goes. There is a story somewhere upon record, of a professor and a

"Rudis indigestaque moles"

of a candidate, who came in contact on a similar occasion. The professor asked the neophyte what was the meaning of the word *creation?* He replied, that it meant something being made out of nothing. "*Ergo,*" said the great man, "*Te doctorem creo.*" But this was false as to fact and absurd in logic. It is a philosophical axiom, that *ex nihilo nihil fit*, so far as *mortals* are concerned; but, according to the orthodox *placitum*, as referring to the power of the Almighty Creator, *ex nihilo oriuntur omnia.* Construe this, Tyrones, and then go boldly to Apothecaries' Hall. There will be no fear of your murdering Celsus or Gregory, if you thoroughly understand the foregoing aphorisms.

Well, upon the same day of September, I, once more, put on my Sunday clothes, a suit of suitable and *sad* * apparel, and there was the more need of this because every body knew that it would be a gay and joyous occasion. *Graduation* (by the time I *grappled with it*) had lost its terrors. When I commenced my medical studies, at a period of almost three years antecedent to the date now under consideration, the solemn event, being at a considerable distance, excited a very subordinate interest. For this (besides the distance

* By some oversight, chapters x. and xi. were printed together as one.

* All Doctors of Medicine are *sad*, by Act of Parliament. See Charter, &c., for the establishment of the London College of Physicians, tempore Hen. VIII.

of time) there were several reasons: I might die during the period of my studies; friends might die, or might withdraw their indispensable support; I might repent of my destination, and circumstances might altogether alter.

Here let me digress for a moment, by observing, that the study of medicine was not, strictly speaking, that of my *choice*; it was not, however, *forced upon* me; I was originally intended for the church, and educated accordingly; but when the crisis arrived, from conscientious motives, I declined "putting my hand to the sacred plough." In the course of the discussions which arose upon the proper application of my *vast science and learning*, I happened to mention *medicine*, hardly imagining that I was to be taken at my word; but so it was, and away they started me to Edinburgh. Had it not been for the curiosity I felt to behold and inhabit Auld Reekie, with its castle, and Calton Hill, and Arthur's Seat, and houses fourteen story-high, I verily believe I should have recalled the word, and settled down in mercantile life, to which I had easy and most encouraging access. Who knows (had I done so) but at this time I might be sitting in judgment at the feet of Gog and Magog, a portly alderman, instead of taking pains to fag at articles of this nature? My best and most judicious friend, who had neglected unusual opportunities of watching my adolescence, upon hearing of my fate, declared that a capital mistake had been committed, for I ought to have been educated for the English bar. However, a doctor I was to be; and a *Doctor Medicinæ* I am.

My original repugnance was great; I could not endure the stench and aspect of a dead subject; and I confess that, during the first few weeks of my attendance in the anatomical theatre, I sought a back row, and abstracted my attention from what was going on in the arena, by reading books, or, more commonly, writing letters. All this repugnance, however, I contrived to get over, and, in a reasonable space of time, to acquire even an ardent love of physical science. For this I had, perhaps, been somewhat prepared by the nature of my prior studies at another university. There I had been furnished with lessons in comparative anatomy and in chemistry, and the collateral instruction of Dr. Hope tended considerably (I have no doubt) to reconcile me to the proceedings of Dr. Monro. It is of the last importance (in a medical school) that the teachers should aid and assist one another, by showing, upon appropriate occasions, the relations which their own department bears to those of their colleagues. Cordial co-operation is of the greatest importance to the pupil, while jealousies and bickerings are sufficient to ruin any school.

I avoided what is termed *fagging* (which proves fatal not only to the progress but to the health of many amiable young men) in two ways:— I was not stinted as to time, and I paid steady and uniform attention to every thing which was presented to notice. I have already explained how greatly I felt the benefit of this when my time of trial arrived. Now and then, it is true, that an extraordinary exertion was required; but, upon the whole, my knowledge grew with my growth, and increased with my personal development.

We were all alert and punctual upon the aforesaid 12th of September, and repaired, with easy minds, to the scene of our approaching glory*.

It was (for I am unable to speak of what is *now*) the order of ceremonial, to assemble the medical Faculty, the Secretary to the University, and the Principal, only for these solemnities. Perhaps if every university in Christendom were ransacked, it

* The great room (and a very ugly one it was) of the old College Library, in the middle of which stood a large table, the Principal and Professors sitting on one side, and the *materials of creation* against the book-cases on the other.

would be impossible to find a personage capable of looking, or acting first fiddler in better style than that of the *very* reverend Dr. Baird. His portly person, his tri-cornered hat, his sleek abdomen (quite à la Father Paul), together with his dark and imperturbable countenance, deep sonorous voice, and *Ciceronian* delivery and pronunciation, have constructed an inimitable university governor, at £*** per degree conferred.

Several hours were taken up in raising objections to passages in the (now printed) Theses. These were advanced by some one of the Professors, to the authors of their respective productions, who replied, or not, as they could or would. Of the thirty-six, half a dozen only had the talent or the temerity to offer explanation or vindication. Of these, I was one. It was my fortune to have Dr. Rutherford to deal with, who had received his cue from my astute tormentor, on the score of *Latinity* *. Dr. R. was not disposed for a long colloquy; he therefore read a short passage, which he said he did not understand; to which I replied (rather flippantly, perhaps), that I was sorry for it, but could not *help it;* and this was nearly all that passed between us.

There was of our number a little, and by no means good-looking candidate (but this can be no disparagement, as the opinion is very general, that ill-favoured countenances betoken superior minds): he informed me that he had studied hard during five years, and that, upon his first examination, Dr. Monro had gone so deeply into minute and abstruse points of anatomy, that few would have submitted to such an examination without insisting upon publishing the particulars. However, he was amply recompensed that day. His *Tentamen de Hernia Cerebri* (with two engravings) was to be disputed by Monro, who, holding it up before all the audience †, expressed himself to the following effect:—"In manibus meis teneo, non *Thesem* *, sed *librum*, qui Dom^m^ S—^n^ valde honorat cujus etiam perlectionem cui libet commendo: nihil objiciendum est." This was truly handsome, and highly honourable to all parties. Dr. S. settled afterwards as a surgeon in one of our most populous recently created boroughs, where he died prematurely. After this (his first successful adventure in authorship) I am not aware that "*Balm of Gilead*" stimulated him to other undertakings of a similar nature.

The *disputanda* being concluded, the candidates repaired to another apartment, in which the Janitor (the well-known Wilson) was in attendance with as many black gowns as would have stocked Holywell-street, gathered, begged, or borrowed (I must not say the rest) from all professions and sundry quarters. In one of these each of us hastened to envelop himself, and being now ready for parade, resumed our former station in front of the big table.

We then came under certain obligations of the most solemn and imperative nature. I will not call the fashion of it an *oath*, but it was of that nature and description. Each had, with uplifted hand, to pronounce it. The form, I think, is to be found, as well as the model upon which it was constructed (namely, the ancient *Hippocratic* oath), in Dr. Gordon Smith's "Analysis of Medical Evidence." It was to the following purport — that we pledged ourselves to exercise the art of curing diseases in an upright and honourable, a conscientious and disinterested manner; and that we would never abandon the profession without serious and satisfactory reason.

And this (let me remark by the way) is an advisable preliminary to launching young men into society, in the highly responsible character of medical practitioners. A collateral practice exists in all departments which receive responsible members.

* See Chap. X.

† It may be as well to state, that the grand ceremony is performed in public.

* It much exceeded the usual dimensions.

The nature and the obligations of a solemn oath are too well understood to require elucidation here; and an oath, or an equivalent, is the most sacred tie recognised in civilised society, of whatever creed or climate. All the well-being of a community is based upon it, and a disregard to its claims would bring chaos back. It is "conscience," says Shakspeare, "which makes cowards of us all" (even of those endowed with the greatest share of animal courage); but conscience also helps a wavering and perplexed man through many a difficulty. I am sure my younger readers will appreciate the importance, and will experience the advantage of giving this a share of their serious consideration.

But to return. Now arose, in awful dignity, his very reverence * himself, and having complimented us upon the satisfactory (though to him, in all probability, *unintelligible*) proofs we had then and there given of our proficiency in medical knowledge, as well as our character *pro bonis moribus*, pronounced judgment upon us, "*summorum honorum;*" empowering and commissioning us to teach and practise the mysteries of medicine "hîc [*ibi*] et ubique." We were then individually, and in the alphabetical order of our names, knocked upon the head with a round *pileus notitiæ* of black velvet, brandished by the muscular arm of Dr. Baird. This was done amid incontrollable laughter on our part. I thought the contrast between the *Principal* of gravity (as he passed along the rank) and the hilarity of my companions, fit subject for laughter I must confess; but I continued to hold tight, and remain *sad* in aspect, if not quite *discreet* in reality.

The medical faculty next passed along the line, headed by the Principal, and each, in turn, shook hands with while he congratulated us. When Dr. Duncan, junior, (the Secretary to the University) arrived at *me*, he wished me joy, but added, that he thought I would *catch it* for my Latin. I bowed, smiled, and said, in *sotto*, "perhaps it would have been better understood had it been worse."

I was engaged to dine that afternoon with a few of my associates, who had been present at the grand ceremonial; and this led to a sudden and considerable *rise in the world*. Having drunk "the usual toasts," the evening waxing late, but the weather being inviting, an ascent was proposed to the summit of Arthur's Seat; no sooner was the exploit mentioned than undertaken. The moon encouraged us, and away we went, past Holyrood, across the King's Park, and

"Climb'd * the steep of Arthur's *arid* side."

About midnight we found ourselves elevated to the lion's very crest †:

* The title page of any inaugural dissertation, even now put forth at Edinburgh, will bear me out in this translation. "Viro *admodum* reverendo, &c. &c. Georgio H. Baird, S. T. P.," &c. &c.

* According to Mr. Bulwer, this should be *clombe;* but we have much authority to array against this reminiscence of obsolete language, discharging the distinguished gentleman from the imputation of being an innovator. Persuaded we are, that, had the literary legislator time or inclination (for we are certain he has the talent) to eclipse JOHNSON, in the article of "dictionary making," he would not construe the verb

"To *climb*"

in any such way as the following:—

The Bulwerian verb to *climb;*
Præterite *clombe*, &c.
Imperfect tense of the indicative mood:

Singular.		*Plural.*	
I	clombe	We	clombe.
Thou	clombedst	You	
He	clombe	They	

Now, in array against this inroad of our most perfect language, let us adduce John Home as author of the classical tragedy of Douglas, who makes Young Norval say,

"The hill they *climb'd*,"

and there are many other standard writers whose authority might also be adduced.

One of our servants once came to me (when in the country) for some medicine to carry to another, who was too ill to fetch it. I gave the messenger a few pills (recently made, and consequently *soft*) in a paper. A short time afterwards she returned, saying that she had confided the delivery of them to the footman, who had *squoze* them into a *bunch!*

† The hazy outline of this celebrated hill is not unlike the form of a lion couchant.

but never was a nocturnal assault committed under greater fatigue; we had no reward for our trouble, not even a midnight view of the Frith, or a shadowy glimpse of our neighbouring mountains. The moon took fright at our audacity, and hid herself behind a cloud. We commiserated one another (four I think we were in number), and regained our wonted level, sober as judges, and weary as tinkers. I am afraid, however, that all young men, who *fag* at their studies, and relax in a social way at the conclusion of them, do not conceive such ideas as to a nocturnal *finish!*

THE

London Medical & Surgical Journal.

Saturday, February 16, 1833.

MEDICAL REFORM.

THE time is at length arrived when the voice of the public and of the medical profession loudly demands reform. Let its opponents be who they may, come it must. It is vain to talk of venerable institutions clothed with the majesty of age, hallowed for their antiquity, respected for their utility, or admired for a long list of names, whose splendour sheds a halo around them. There has been nothing in the Royal College of Physicians, either in the management of its own concerns, or in the protection which it has given to the public, that entitles it, for one single moment, to respect or esteem. It has most decidedly closed its ears against the loud and honestly expressed indignation of the scientific and the learned, and it can, therefore, meet with no sympathy for its fall; it has incurred the contempt of the just and the good, and there is now but one step which it can take to spare itself the disgrace of being attacked and overthrown. It must yield, and receive within its bosom those whom it has so long and so contemptuously rejected. It must open wide its portals to receive the whole body of the licentiates. They will then support it, and gladly place the College of England upon a firm and honourable foundation, which no storms can shake, nor can any whirlwind arise to overthrow the splendid superstructure which must be erected. To the plan of the Royal College of Physicians alone giving degrees, we have, upon mature reflection, no objection. On the contrary, we have been led to think, that no public or private school whatever should have the power of bestowing the right to practise in England. Every candidate for a degree should be obliged to undergo an examination by the College of Physicians; and no power should be granted to any school, for the Professors would naturally be interested in the success of their own pupils, and necessarily become unintentionally partizans. The diplomas granted by Oxford, by Cambridge, by Dublin, by Edinburgh, or by any school, should only be received as testimonials that the candidate has undergone a proper education, and is fitted for examination. The first degree might be that of bachelor of medicine, after five years of education; and after five years of practical employment, the dignity of doctor might be conferred.

Every resident graduate of the College should be a Fellow, whilst those who practise in the country may be Licentiates. But no individual should be permitted to practise as a physician, in any part of England, without a proper recognition from the Royal College. Thus constituted, a body must be formed, and that speedily; no power can arrest the onward progress of education, honesty, and truth.

It is currently reported that we shall speedily have to congratulate one of our weekly contemporaries upon his advancement. We fear his literary talents have not been so splendidly rewarded as he may imagine they deserve. But he has met his deserts elsewhere, for we learn, from good authority, he is likely to step from the grade of Licentiate to a Fellow of the College. We must then also congratulate the public, for doubtless he will exert his manly voice, and loudly proclaim within the walls of the junta his love of reform, and will prove himself an advocate of truth and of justice.

ELECTION OF PHYSICIAN TO THE MARY-LE-BONE GENERAL DISPENSARY.

On the resignation of Dr. Sigmond, as Physician to this Institution, a vacancy was declared by the Board of Directors, and an advertisement was issued by them, desiring candidates to send their testimonials on a certain day, and appointing another day for the election of those who were put in nomination. Several candidates announced themselves in the public prints, but, upon the day of examination of testimonials, two only appeared. Both these gentlemen were declared ineligible for the present vacancy; the one, Dr. Holroyd, not having sent any proof of his being a Member of the College of Physicians of London; the other, Dr. Weatherhead, who sent his diploma, not having given any testimonials. A second advertisement was therefore published, postponing the day of election. The day originally fixed was the day appointed for the monthly meeting of Directors, when they, as usual, assembled, and commenced taking such steps as they considered necessary for the emergency. A number of governors, however, assembled in another apartment, and having constituted what they called a meeting, placed Sir Launcelot Shadwell in the chair, and having exhausted themselves with a long and desultory debate, proceeded to an election, and declared, after going through the ceremony of a ballot, Dr. Holroyd Physician to the Dispensary. A direct law of the Institution says, that none but a Member of the College of Physicians can be appointed. We have, however, here a case, in which a body of governors have openly violated the law, and expressed their contempt for that chartered college, for whose maintenance, the whole body of medical men ought to be warmly interested, but for which, we fear, no regard is entertained. The Vice-Chancellor of England who presided and explained the laws, has also thus held forth to the profession, a pledge that he will assist it in placing that college upon the firmest basis, namely, public esteem, without which it is in vain either for an individual, or any set of men, long to exist in tranquillity. Of the necessity of a reform, every one who has examined the subject has long been convinced; but, for the boldness of the present steps taken by the governors of the Mary-le-Bone Dispensary, we were not prepared. Of the whole management of the election we cannot speak in approving terms, but as the confirmation will most probably excite some discussion, we shall defer our comments.

ROYAL INSTITUTION.
Feb. 8th, 1833.

A VERY large assemblage crowded the theatre this evening to hear a lecture from Sir Anthony Carlisle. There were many distinguished medical men among his auditors, who appeared anxious to learn the worthy surgeon's opinions, as they are known to be somewhat at variance with those generally entertained by the profession. He was listened to with the greatest respect and attention; and although, as might be expected, his observations were, many of them, peculiar, yet the motive which induced him to promote the views of the managers, by lending his aid to the interest of the meetings, was quite sufficient to obtain for him every indulgence, and even every mark of approbation that is usually bestowed. The subject he chose was Hereditary Diseases; but the sole one on which he touched during his discourse, which lasted upwards of an hour, was Scrofula.

He commenced his observations by some remarks on the union of medical science with philosophy, which was now beginning to be universal; though upon the Continent the necessity of their junction was better understood than in this country, where little advance had been made since the days of John Hunter, excepting that chemistry, which had made such rapid strides, had thrown much light on the healing art. He hoped that medical pedantry and medical mystery were fast declining. Still much remained to be done. He proceeded to make some observations on the necessity of attention to diet, regimen, and clothing, in what were considered hereditary and incurable diseases, which might often, he remarked, be alleviated without poisonous drugs.

He thought we were living in a crisis, and was fearful that an overweening mediocrity would overpower true philosophy; and then expatiated on the necessity of an aristocracy to foster talent and art.

The learned surgeon then proceeded with observations on the general view of the humoral pathology, which involved the question of hereditary disease, and stated his opinion, that scrofula was not necessarily a hereditary one; indeed, he knew instances where all those external conformations, which were supposed to denote a predisposition to the disease, were absent; nay, where there was the finest expansion of thorax, he had witnessed that consumption, which he believed to be closely allied to scrofula, was developed. He instanced four cases of the strongest and most athletic men, who were public pugilists, amongst whom he named the Game Chicken and Belcher, who had fallen victims to this disease. It was true, that their dissolute habits of life might have predisposed them; but they were careless of exposure to cold, and to changes of temperature, which he considered exciting causes of disease, from an idea of the hardiness of their frames.

Sir Anthony then dwelt upon cold and other causes of scrofula; he explained the nature of the disease; and, by the assistance of diagrams, gave a very clear illustration of his views of the effects produced. He described, with some eloquence, the appearance of a scrofulous person. He pointed out the remedial means he would suggest, which were rather dietetic than medicinal.

We cannot, however, follow the learned gentleman through his train of argument, as it would demand more time and attention than it is our duty to bestow.

Some of his opinions were, as usual, startling, and appeared to be rather the result of quickly formed notions, than of cool and severe reflection; and, occasionally, the latter part of a sentence put to flight the doctrines laid down at the commencement. Thus some severe animadversions were directed against dissection, which was pronounced contrary to religion and nature; but these were counterbalanced by a declaration, at the end

of the selfsame sentence, that without a knowledge of anatomy, a physician would be a quack, and a surgeon a ruffian.

Whilst, also, the improvements of science were hailed with admiration, the employment of *poisonous* drugs was severely anathematized. The fault of Sir Anthony Carlisle always has seemed to be, that he objects to the proper and judicious use of all those powers which nature has placed in the hands of man for his assistance and relief. He rejects, under a false notion, the aid which he can obtain. He forgets that man lives in an artificial state, and that he must avail himself of every thing that art has invented. We believe Sir Anthony to be a very intelligent man, very sincere, and well informed upon many points; but he makes no allowance for different states of society. Amongst the aboriginal Britons, he would have practised with the greatest success; but we feel that his views are not adapted to the present state of moral and of physical research.

Whatever his opinions may be, he has always fearlessly and honestly avowed them, and, therefore, demands great respect; still the duty we owe ourselves and the profession, obliges us to declare, that, upon some most important points, connected with medicine and morals, he is at issue, *toto celo,* not only with the profession, but with the wisest and most virtuous members of the great community.

On the library table were several interesting German publications, many of them medical, which were, by the liberality of Mr. Schloss, the foreign bookseller, exhibited to the public view.

MEDICO-BOTANICAL SOCIETY.

February 12th, 1833.

Earl Stanhope, President, in the chair.—Dr. Bradley, James Anderdon, and Barry O'Meara, Esqrs. were balloted for and unanimously elected. A number of books from various individuals were presented, and thanks returned to the donors. A letter was read from Mr. Morris, of Bombay, accompanied by a very valuable herbarium, dried plants, roots, and seeds, collected in India, China, and the shores of the Red Sea. Many of the specimens were exceedingly curious and well preserved; amongst them the trapa bicomis, the panax or ginseng

Dr. Clendenning delivered an interesting lecture on the toxicological properties of iodine, which was necessarily brief, as scarcely any fatal results are recorded as having occurred in consequence of its employment.

Among the numerous dried specimens of extraordinary interest, either from the localities in which they were collected, their structures, or their uses, several of which were commented on briefly by Professor Burnett, he directed the attention of the Society to the fern called the Tartarian lamb, often referred to by the older writers, and of which an admirable specimen was on the table. He explained physiologically its mode of growth, by which it simulated the form of a quadruped; and adverted to the vulgar notion, sometime entertained, that it destroyed or ate the grass in its neighbourhood; and the exaggeration of the tale indulged in by some travellers, who have asserted, that when cut it bleeds, and that its substance has the appearance and smell of mutton. Some fine specimens of ginseng were also shown, the plant which the older botanists, in emulation of the alchymists, boasted as a *cure-all,* and hence called *panax.*

Dr. Sigmond, as secretary of the society, then read the following letter addressed to him.

"The Medico-Botanical Society of London having introduced the juice of the MIKANIA GUACO into practice, as a remedy for hydrophobia and other diseases, I make no apology for calling the attention of the members of the society to reports made to the Royal Academy of Medicine at Paris, concerning its efficacy in cholera, and also to an essay in one of the French

Journals respecting its employment in the same disease.

"It is well known that in the malady, termed by many authors Asiatic cholera, the secretions of the body are either completely or partially arrested, the function of the skin being especially impeded; and one of the symptoms by which re-action is indicated, is the breaking out of a more or less abundant perspiration on the face and body. Such, at least, was the general result, at the Cholera Hospital at St. Hiliers, Jersey, when I held the rank of surgeon to that institution. Numerous are the remedies, real or pretended, which have been tried in cholera, for the purpose of causing the restoration of the function of the skin; I need only mention the hot vapour bath, the hot-air bath, the spirit bath, the sudatorium of Gray, Le Beaume's portable sudatory, with many others, to convince the Society of the high importance attached to this action; but, at the same time, I must remark, that the mere restoration of this function, the mere excitement of re-action, does not prove sufficient to cure the disease; many, and I think the majority, of those who die from cholera, perish from its after effects, in a word, from consecutive fever; and I know not any way of curing this, than by the administration of some one or other of the preparations of mercury, until ptyalism is induced. But to return from this digression. Dr. Virey, a gentleman who has written a very interesting paper on the guaco, remarks, that its infusion is very diaphoretic, and that it was first tried in cholera in consequence of its exciting abundant perspirations. I consider the present notice of this property of the plant well timed, as there is reason to dread a return of the disease to this country, if we are to give credit to the statements contained in the public papers; and, should any cases occur in my own practice, I should feel anxious to give it a trial, as it is so much recommended by the French practitioners.

"The introduction of the guaco will doubtless prove a source of gratulation to the Society, should it be really efficacious, or simply an auxiliary, in this dreadfully maligniant disease, even if it should ultimately prove useless in the malady for the treatment of which it was originally introduced. In the latter, it would have saved the lives of a few individuals at the utmost, but in the former disease, it may be the means of rescuing thousands from a speedy and painful death *.

"*Description of the Huaco, or Guaco, a parasitic plant, celebrated in cases of Serpent-bites, now employed in Cholera.* By J. J. Virey.

"(Extracted from the 10th Number of the Journal de Pharmacie, et des Sciences Accessoires; page 567.)

"A plant of the family syngenesia corymbifera, growing in the province of Santa Fé, and other countries of the new Republics of America, has become no less famous by its properties than the *ayapana*, which belongs to the same tribe.

"The *vejuco del guaco* resembles a liana, by its climbing stem, which rises to the height of thirty feet on trees; although herbaceous, it has very deep, ramifying roots, cylindrical and opposite branches, leaves oval, petiolate, denticulate, five inches long, three broad, rough above, smooth underneath, of a very strong and nauseous odour; the flowers, of a dirty-white colour, are axillary, or spring in a terminal corymb; the calyx has four foliolæ, and contains four hermaphrodite florets; each cuneiform seed is surmounted by a downy reddish pubescence.

"Le Père Gumilla, in his Orinoco Illustrado, first gave an account, although imperfect, of this plant. Don Joseph Célestin Mutis next described it in the Semanario de Agricultura, vol. iv. page 314; and afterwards

* At a late meeting of this Society, a paper was read, which was forwarded by our able correspondent, Dr. Hancock, in which he stated, that guaco was an useless, insignificant drug. He said it was used by the natives of South America as a wonderful remedy.

Cavanilles gave a more complete history of it in the Anales de Siencias Naturales, tom. vi. page 314, but a plate of the plant has been only published by Humboldt and Bonpland, in the Plantæ Æquinoctiales, tom ii. page 84, plate 105. It is an *eupatoria*, placed by Willdenow and other botanists in a sub-division, under the genus *mikania* (the mikania guaco), and possesses affinities with the *cœrelia*, pigueria, steira, &c.

"The *mikania guaco* (the eupatorium of Lamark and Bonpland) is a most celebrated antidote to the bites of serpents. In Martinico, the *eupatorium saluriæ-folium* is also employed under the name of guaco, as an antidote to the bite of the viper *fer-de-lance*. Its juice is either dropped into the wound, or it is taken internally, and it is even sufficient to use it in friction to drive away these serpents, which detest its odour. It stupefies them, as the negroes have often experienced, when employing the fresh herb, according to the evidence of several physicians, who have witnessed the fact.

"The guaco, when dry, has a less penetrating odour, but the bitterness of its taste is not without its efficacy. This plant is then considered, and justly, an excellent stomachic; it acts also as an anthelmintic; its infusion is very diaphoretic, and it is supposed to act as an antidote to the poisons of serpents, by exciting abundant perspirations; it is for this quality that it has been considered very salutary in Asiatic cholera. It is certain that the *mikania officinalis* of Martius replaces successfully the cascarilla and cinchona in Brazil, and that the *mikania opifera* is usefully employed in the same part of the world in diseases of the lymphatic system.

"It appears then evident that the synantheræ of the tribe of the eupatoriæ, as for instance the *eupatoria perfoliatum* of the United States, are endowed with more or less energetic properties, either febrifuge, emetic, or sudorific, which re-act on the whole economy, in the adynamic fevers, and in intoxication, serpent's bites, &c. It is also said to be useful in the most serious affections of the pulmonary system, the cachexiæ.

"The *guaco* has been already brought to Europe, as the ayapana had been previously. Dr. Francois has made its powers known to the Academy de Médécine. It must not be confounded with the *guano*, under which name M. Humboldt has described a collection formed by an immense accumulation of the dung of sea-birds, in islands adjacent to the continent of America. This collection contains a large quantity of a calcareous urate, and is excellent manure.

"*Report made to the Royal Academy of Medicine, Paris.*

"Oct. 30th, 1832. *Use of the Guaco in Cholera.*—M. Francois stated, in a note transmitted to the Academy, that the guaco had been given in five cases at the Hospital St. Louis, and that in four it caused prompt re-action, accompanied by abundant sweating. At the Hôtel-Dieu, it was also tried in five cases, but only produced a sensible effect in one. He added, that M. Boucher, a physician practising in Bourbon Vendée, was making similar experiments on it.

"Nov. 12th. M. Dariste informed the meeting, that M. Perrera of Bourdeaux had adminished the guaco in cholera in eleven cases. The success was not complete in all, but there was manifest re-action in each case; in eight, it was given in conjunction with other remedies, so that the advantage obtained cannot be solely attributed to it; but in the remaining three cases, the guaco given alone produced a favourable re-action, although the cases were exceedingly severe."

DEFENCE OF DRUGGISTS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—Very unwillingly do I venture to address you, not from any doubt of the justness of my cause,

but from feeling incompetent to give that force to my expressions which the case demands. From the commencement of your publication I have been a subscriber, and I cannot but hope, if the following is not too long, you may be induced to insert it in your "impartial Journal." I, "one of the uneducated druggists," have derived much pleasure, and, I trust, some advantage, from the perusal of the said "economical," and have promoted its interests to the utmost of my power: latterly I have been disappointed, nay, pained, at the unjust remarks you have been pleased to hurl against *we* pains-taking druggists; and may I add, sorry to see a member of a liberal profession show so much temper as you have evinced on the same subject. Before you condemned us so unmercifully, I think you should have inquired whether we were so utterly ignorant as you delight to make us appear. Do *you* know the routine of study we must pass through before qualified to commence business, and gain the confidence of the public? if not, pray read the following plain unvarnished statement; and then ask yourself if such a one is or is not competent to prepare a surgeon's or even a physician's prescription. A well educated youth—I have one just come to me—a good Greek scholar, and well versed in general knowledge, about sixteen years old, enters a druggist's shop as an apprentice for five or seven years; for the first two and a half years he does little more than give his constant attention, under the eye and direction of his master, to the preparation of pharmaceuticals, the inspection and preparing drugs and chemicals, and the perusal of prescriptions and works on practical chemistry, reagents, &c. &c.; at the expiration of that time, he is, I submit, competent to prepare, with exactness and with a thorough knowledge of what he is about.

After the apprenticeship has expired, most (if not all) young men enter first a wholesale house, then a retail one, to gain still more experience; and, after all this expense, application, and devotion to his business, he is turned out, in the opinion of the Editor of the London Medical and Surgical Journal, (who advances arguments, drawn from remote dates, to give a shadow of incompetency to persons of the present time), not a gentleman, anxious for his own honour and reputation, but a qualified quack, a rogue, and a vagabond, and one who destroys life as unconcerned as any fee-loving physician.

From whom do your boasted apothecaries for their public, and many of the most respectable physicians for their private use, have their supply of drugs and chemicals? Why, I will vouch, and my books will bear me out in the assertion, mostly from retail druggists. Who is most competent to prepare a prescription? the man who knows the quality, effect, and dose, and passes all his life in the strict scrutiny of drugs, &c., or the apothecary, who, for five years, sees simply the few medicaments kept in surgery, (and how kept!!!) and then grinds himself in materia medica, *merely* to pass the Hall. Common sense will reply sufficiently loud for me to be satisfied with the decision. But, with all your virulence, I respect you, my good Mr. Editor; and although you know me not, not even by name, (by the by, you are attending a dear relative of mine, and the apothecary, whom I still more highly admire, pockets the prescriptions, and I wish you to accept this as a proof of my good feeling on the subject), I request of you, in all courtesy, to answer me this question, What is the duty of a retail druggist, and how can he gain his bread, if not by dispensing medicines? If you can put me in a way of bettering myself, I shall, as in duty bound, pray for you every prosperity—till then

I remain your obedient servant,

H. L. J.

P. S.—I have a precious morsel in my possession, showing, not only that your regularly educated apothecary *sells*, but actually *prepares* patent

medicines. If this is favourably received, I may shortly, in compassion, favour you with many such-like crums of comfort.

January 26th, 1833.

MEDICAL REFORM.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—I am glad to find that you have lately called the attention of the profession to the state of the London Medical Colleges, and to the management of our Hospitals, and I hope you will continue to agitate these matters until we obtain a thorough reform, a reform which nine-tenths of medical practitioners consider imperative, and would gladly use their utmost exertions to effect. The only question is, where and how to begin? To decide this question, would it not be well to call a meeting of the whole profession, and, after fixing the principles, which should serve as a basis for the sort and extent of reform that may be deemed necessary, to form a permanent committee, which might communicate with government on the subject. Lord Althorpe is about to bring in a bill to inquire into the state of existing corporations, and the public are determined that this inquiry shall take place. Now, therefore, is the time for the profession to come forward; if they do not, the business will evidently fall into other hands.

Your remarks on the proposed hospital for the London University excited, I confess, some surprise. Now, can you for one moment imagine, that it can meet with support, when, instead of being devoted to the public benefit, the advancement of science, and the promotion of a system of even-handed justice to the votaries of science, the University, founded by the public purse, has become a school of medicine, the election of whose teachers is private, and conducted even upon a worse plan than that of the teachers in our hospitals? The latter, if corrupt, owe at least their defects to an ancient date, and that ought, in some measure, to screen those in office from reproach; but what excuse can be made for those who have perverted a new (and which might have been a great) public institution, to the narrow uses of a private medical school?

A SUBSCRIBER.

Feb. 12, 1833.

Reviews.

Principles and Illustrations of Morbid Anatomy, adapted to the Elements of M. Andral, and to the Cyclopædia of Practical Medicine, with which it will correspond in size; being a complete Series of Coloured Lithographic Drawings, from Originals by the Author, with Description and Summary Allusions to Cases, Symptoms, and Treatment, &c., designed to constitute an Appendix to Works on the Practice of Physic, and to facilitate the Study of Morbid Anatomy in connexion with Symptoms. By J. HOPE, M.D. F.R.S., Physician to the Mary-le-bone General Dispensary. London: Whittaker and Co. Price 8*s.* 6*d.* Nos. 1. and 2. No. 1. pp. 24, 4 Plates, 30 Figures.

DR. HOPE has already distinguished himself as a pathologist. He has most deservedly obtained for himself a very high rank in medical science; and the numbers now before us will add to the reputation he has a right to enjoy. A series of illustrations of morbid anatomy, conducted on the plan he has thus commenced, will be a most valuable addition to our scientific works; and when the series shall be concluded, if the learned author proceed in the same satisfactory manner throughout it, he will have added a most important contribution to that branch of our art which most requires cultivation and inquiry. The first number commences with the diseases of the respiratory apparatus; and the first division he has made is into the diseases that affect the pulmonary

parenchyma. He has thought it right to follow the arrangement of M. Andral, which, he conceives, combines simplicity with precision. Some doubts may be entertained as to the propriety of taking M. Andral as a leader, although he has done so much in improving our knowledge of the morbid states of the organs which are here the subject of illustration. There can be no doubt that there is great apparent simplicity in the plan, and that it may lead to further investigations, which shall at last attain the desirable end of establishing certain and accurate knowledge. At a future period we may take an opportunity of pointing out such defects in M. Andral's plan as, in our opinion, tend to diminish its value. Here we can only say, that Dr. Hope has availed himself of all the advantages it offers, and that he has entered, with great claims to our approbation, upon a field which will amply repay him for his labours, and which must enable him to diffuse satisfaction throughout his profession.

The engravings admirably delineate the morbid changes caused by disease in the lungs: the states of engorgement, of hepatization, of purulent infiltration, and of gangrene, are accurately presented to the eye; and the various ravages committed by lesions of the capillary circulation are admirably illustrated. The sequelæ of phthisis, too, are given with a masterly hand: the colouring of each figure is the result of minute and careful attention; there is nothing overdrawn; no heightening to produce effect; none of that gorgeous display which so materially detracts from the value of many works both in the English and French language upon morbid anatomy. The immense field which Dr. Hope has the opportunity of gleaning a rich harvest from, as physician to an institution where so many aged and sick are assembled, gives us a promise of fruits worthy his talent and industry.

Dr. Hooper, his predecessor, has done much worthy our praise, and we feel most happy that his footsteps are followed by one capable of adorning the practical science of the age.

A Theoretical and Practical Treatise upon the Ligature of Arteries. Translated from the French of P. J. Manec, M.D., Prof. of Anat. and Operative Medicine, &c. By J. W. Garlick, M.R.C.S., and W. C. Copperthwaite, M.R.C.S. with Notes and Appendices, selected from the Writings of many celebrated Surgeons. 4to. pp. 227. Numerous coloured Plates. Halifax, 1832. London: Highley.

The translators of this work are justly entitled to the thanks of the operative surgeons for the accuracy and fidelity with which they have given an English version of a most important treatise on the surgical anatomy of arteries. The illustrations of the relative position of all arteries to which ligatures may be applied are extremely correct, and enable the surgeon to refresh his memory on many nice and difficult points before he proceeds to operate. We recommend this production as worthy of a place in the surgeon's library, with the works of Hodgson, Harrison, and Guthrie, on the arteries. It is published on reasonable terms considering the great expense incurred in executing such a vast number of plates.

An Essay on the Structure and Functions of the Skin, with Observations on the Agency of Atmospheric Vicissitudes in the Production, through the Medium of the Skin, of Affections of the Lungs, Liver, Stomach, Bowels, &c. By W. Wood, M.D. M.R.C.S.. &c. 8vo. pp. 172. 1832. Edin.: Maclachlan and Stewart.

The objects of the author of this essay are, to describe the physiology of the skin, and the influence it exerts in the production of diseases. He has critically reviewed the various opinions offered on the function and pathology

of the cutaneous system, and accumulated a vast deal of curious and instructive information. The origin of mankind, from one or from several pair, is discussed physiologically, and the conclusion arrived at is the only correct one — that mankind have sprung from one pair.

The second part of the essay is devoted to the important connexion between the functions of the skin and the origin of diseases, and contains simple but judicious rules for the preservation of health. This work contains a good deal of information derived from various sources and from the author's experience. It is intended for the medical and general reader, and will be perused with interest by both.

A Treatise on Inflammations; explaining their Pathology, Causes, Consequences, and Treatment, with their Effects on the various Textures of the Body; being an extension of a Dissertation on Inflammation of the Membranes, to which the Jacksonian Prize for the Year 1828 was awarded by the Royal College of Surgeons in London. By George Rogerson, Surgeon, of Liverpool. Vol. I. 8vo. pp. 459. London: Longman and Co., and Marples, Liverpool. 1832.

The author of this production considered that as Dr. Thomson of Edinburgh seemed determined to withhold a new edition of his admirable work on Inflammation, it was extremely desirable that a new systematic treatise should be arranged; and under this impression he prepared the work before us He does not appear to be aware of Mr. James's erudite work on the subject; and he proceeds to execute his task as if no such work had been published. He extends the dissertation to which the Jacksonian Prize was awarded, and compiles a systematic treatise on inflammation, which is highly creditable to him as a scientific and practical surgeon. He has done ample justice to the important subject, and has produced a work that ought to be encouraged by every medical practitioner. We strongly recommend this work to the notice of our readers.

FEES OF MEDICAL PRACTITIONERS IN FRANCE.

The regulation of charges in criminal causes, contained in the decree of June 18, 1811, has fixed the amount of fees that physicians, surgeons, and midwives are entitled to, when their attendance has been required. Each physician, or surgeon, shall receive the following fees:—for each visit or report, including the first dressing, if necessary, in Paris, six francs, or five shillings sterling; in cities containing 40,000 inhabitants, five francs; in smaller cities and in villages, three francs. For opening a body, or other operations more difficult and tedious than a simple visit, besides the above fee, they shall receive, in Paris, nine francs; in cities containing 40,000 inhabitants and upwards, seven francs; in smaller cities and villages, five francs.

For the expenses of exhumation, the regulations of the local tariff shall be followed.

Besides the fees before mentioned, the charge for the necessary medicines shall be allowed. There shall be no allowance for visits, either after the first dressing, or the usual official attendance.

In all cases where physicians, surgeons, or midwives shall be brought before a magistrate, in disputed cases, on account of their declarations, visits, or reports, the indemnity due for this appearance shall be paid to them as witnesses.

When physicians, surgeons, or midwives are obliged to travel more than a mile, in the discharge of their duty, and particularly in those cases mentioned in the code of criminal law, they shall receive the following fees: for two leagues' distance, physicians and surgeons shall receive two francs

fifty centimes, or two shillings and a penny sterling; and midwives one franc fifty centimes, or fifteenpence sterling. The fees shall be regulated by the myriamêtre, which is a little more than two leagues. The two francs fifty centimes fee shall be raised to three francs during the months of November, December, January, and February. Should the above-named individuals be arrested, in their journey, by superior power, they shall be indemnified for every day of their detention, viz. those of the first class two francs, those of the second one franc fifty centimes. They shall be obliged to have a certificate from the justice of peace, or his deputies, or from the mayor, or, in his absence, from his colleagues, stating the cause of the detention, and the certificate should be presented to support their demand for remuneration.

PRACTICAL ETHICS.

THE account of the Cæsarean operation, given in the last Number of the *Medical and Surgical Journal*, has called to mind a passage in my "History," which, as it occurred subsequently to the period contemplated in my "Reminiscences," I shall relate now, hoping it will do no harm among the *cats* (or quarrelsome members) of the profession.

A few years ago I was invited to establish myself as a physician in a small, though celebrated, inland town, to which I repaired, and in which I met with a far more flattering reception than my most sanguine expectation could have devised. Ill health, after a few months' experiment, compelled me to abandon one of the most inviting prospects ever medical man, perhaps, had before him; it was *unique* at the time, but is no longer so. I was absolutely *courted* by all classes, and by both sexes; and had I been well enough to have remained among these excellent people, I should have speedily realised a fortune, provided they had not killed me with kindness, ere this could have been effectuated.

In this town there were four practitioners of longer or shorter standing. The gentleman who had the leading practice was brother to the principal municipal functionary, and therefore so substantially elevated above the rest, that he was an object of envy and dislike among them. He was my friend, inviter, and adviser; and him I naturally sought upon my arrival. In the course of our first interview, a sort of sympathetic feeling was excited on both sides. He told me that all the profession in R*****d were by the ears together; that two out of the other three would neither speak to him nor to each other; that they all wanted a commanding officer among them; that they were not so bad as one another might think; that, for his own part, he smiled at their petty jealousies, but was willing to forgive and forget; and that all breaches might be healed through a little judicious interference, by some one whom all parties would defer to.

I saw, at once, the importance of affecting this, even for my own sake; how could I expect to prosper if I sided with a *faction*.

For the first few days I took up my abode at one of the inns, and (according to etiquette) left my card at the door of each medical gentleman. At one house the *maid* said her master *was* at home, and I had some difficulty in getting away without seeing him.

Visits were duly returned. First came Mr. A. In the course of conversation he deeply lamented the state of medical politics in R. "Ah, Doctor," said he, "I wish we had somebody who could set us to rights; here is Mr. B. carrying off all the practice. He and I don't speak, and I am sure I have a great respect for him."—"Don't speak!" responded I, "that is inexplicable to me, for Mr. B. was here this morning, talking of you in such terms that I cannot but entertain a great respect for you."—"Good gracious, you don't say so, Doctor?"—"Yes, I do, and it is a fact; there must be some mistake between you."

After him came Mr. C. "You are Dr. ——, I presume?"—"The same; Mr. C. I am happy to see you." In the course of our chat he alluded, in a melancholy tone, to the unfortunate misunderstanding among the faculty of R. There was Mr. A., and Mr. B., and himself and Mr. D. who would not meet in consultation to save the lives of the three dukes, who resided in the neighbourhood. I joined in his lamentation, but qualified my grief with the remark, that these gentlemen had expressed themselves to me concerning him in the most handsome manner. The man was surprised at this piece of intelligence.

Having thus Macadamised the way, I ventured to travel upon it. I asked the whole *corps médical* to dinner, and the town clerk departed from his usual state and dignity so far as to make one of the party. All the four, A. B. C. and D. drank wine, and got into perfect good humour with each other. The next day I was called to a three guinea consultation by one of them; after which, evening parties, dispensaries, book-clubs, and I know not what else, sealed the peace.

ARMY MEDICAL OFFICER.

Hospital Reports.

GUY'S HOSPITAL.

Two Amputations.

THOMAS RIST, ætat. 36, a Greenwich coachman, states, that about three years ago, mounting the box of his coach, his foot slipped off the roller bolt, and raised the integuments of the left leg for the distance of five inches in length and three inches in breadth. He used ointments, poultices, with and without black wash (but they were of little or no service), till he came into the hospital. He was admitted into Philip's Ward, No. 35, under the care of Mr. B. Cooper, with a large foul ulcer, extending completely round the leg. He used linseed-meal poultice with lot. acid. nit. until July (the ulcer rapidly healing), when he was attacked with erysipelas, succeeded by sloughing. In November, pressure was had recourse to (emp. saponis), when he was again attacked with erysipelas. Numerous remedies were tried, but without effect, till January 1st, 1833, when the leg was removed by the circular operation, and the lips of the wound were brought together in a horizontal position, instead of the vertical, on account of the large size of the tibia and stump generally. The patient has not had one bad symptom since the operation, and the stump is just healed.

Sarah Wiltshire, ætat. 25, came into Charity Ward on the 10th of December last, for the purpose of having her left leg removed. She is a delicate woman; perfectly lost the use of the left side since she was six months old, having had convulsive fits whilst cutting her teeth. A large ulcer on the leg, from which she experiences exquisite pain.

Jan. 1. Mr. Cooper performed the operation, which was the circular; the muscles were almost white and very flabby; two of the ligatures came away in a fortnight. The stump continues healing, and looking quite healthy.

RESIGNATION OF DR. HEWITT.

AT the weekly meeting of the Governors of St. George's Hospital, held on Wednesday, a letter was received announcing the resignation of Dr. Hewitt, as Physician to the Hospital. A vacancy was therefore declared, for which two candidates have already started, Dr. Hope and Dr. Macleod. Several other names have been mentioned; but time has not yet been given to ascertain their claims, or their expectations of success.

ROYAL SOCIETY.

Feb. 8, 1833.

William George Maton, M.D., Vice-President, in the Chair.—An interesting paper, by A. P. W. Philip, M.D., F.R.S., was read, "on the relation which subsists between the nervous and muscular system, in the more perfect animals, and the nature and influence by which it is maintained." The learned author took an extensive survey of the subject, and his views excited deep attention.

SMALL-POX HOSPITAL.

The following is the amount of patients for the past year, at the Small-Pox and Vaccination Hospital, King's Cross, Pancras:—

Small-pox patients . .		330
Died . . .	97	
Discharged . .	233	
Patients vaccinated . .		3,701
Charges of vaccine lymph supplied to medical practitioners and to foreign parts . .		1,443

LITERARY INTELLIGENCE.

Dr. B. G. Babington has executed a translation of a German work, entitled "Black Death," which is now in the press, and will be speedily published.

BOOKS.

The Principles and Practice of Obstetric Medicine, in a Series of Systematic Dissertations on Midwifery, and on the Diseases of Women and Children. Illustrated by numerous Plates. By David D. Davis, M.D. M.R.S.L., Professor of Midwifery in the University of London, &c. &c. Nos. XIV. XV. XVI. 4to. Plates. Lond. John Taylor. 1833.

Remarks submitted to the Medical Professors of the Universities of Scotland and Ireland, as well as to the Licentiates, on the necessity of Medical Reform, as the consequence of the selfish conduct of the College of Surgeons, and the President and Fellows of the College of Physicians of London. By Machaon. 8vo. pp. 16. Burgess and Hill.

This is a powerful criticism on medical abuses, and a liberal and able defence of the interests of the profession against monopolists.

New Views of the Process of Defecation, and their Application to the Pathology and Treatment of Diseases of the Stomach and Bowels, and other Organs; together with an Analytical Correction of Sir Charles Bell's Views respecting the Nerves of the Face. By James O'Beirne, M.D., Surgeon Extraordinary to the King, Surgeon to the Richmond Hospital, Dublin, &c. &c. 8vo. pp. 286. Dublin, 1833. Hodges and Smith.

This is a highly instructive work and one which will lead to new views in the practice of medicine. We shall notice it fully hereafter.

CORRESPONDENTS.

A Subscriber to this Journal and the Cyclopædia of Medicine, makes an unreasonable request. He must see, on reflection, that we cannot insert his remarks, but we have forwarded them to the proper quarter.

F. J. B.—We cannot comply with the request, but shall attend to it on the first opportunity.

A. B.—We think there is no doubt but the Court of Examiners of the Apothecaries' Company would grant an examination on the certificates mentioned, or indeed, perhaps, without them, to one engaged in practice for thirty years; but the regular way of acquiring conclusive and positive information would be, by addressing a letter, stating full particulars, to John Watson, Esq. Secretary to the Court of Examiners, Apothecaries' Company, 43, Berners-street, Oxford-street, London. Verbal communications cannot be depended on, and might induce our correspondent to travel 300 miles, and afterwards receive a denial.

Medicus.—There must be a reform in the College of Physicians, and we have been informed, on the best authority, that the most liberal changes are contemplated. It will afford us sincere gratification, if the first medical institution in this country undergo such changes as will be agreeable to the profession, and render it entitled to the support of all its members.

A Subscriber.—Ipecacuanha is the remedy so strongly recommended in hæmorrhages.

A King's College Student.—Justice is always tempered with mercy. To err is human, to forgive divine.

Anti-Monopolist.—We cannot comprehend the syllogism, that charging a high price for subjects will cause robbery and murder.

Damages and Costs against Dr. Ryan for defending the honour and dignity of the Medical Profession nearly £800.

Amount of Subscriptions already received in aid of Dr. Ryan . . £199 16 6

A Friend to the Liberty of the Press	1	1	0
Fairplay	1	1	0
A. B.	0	10	0
Dr. James Johnson . . .	0	5	0
H. Moran, Esq.	0	2	6

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 56. SATURDAY, FEBRUARY 23, 1833. Vol. III.

LECTURES
ON THE
PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,
BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXIV., DELIVERED NOV. 28, 1832.

Gentlemen,—Not having had time on Monday evening to complete the few remarks, which it was my wish to have made on those common complaints called *chilblains*, I will recapitulate what was then said, and afterwards conclude the subject of injuries arising from cold. You know, that chilblains are often a cause of serious annoyance, not only by the manner in which they interfere with the use of the hands or feet, but by the considerable suffering which they produce in the ulcerated state. In the last lecture I explained, that a chilblain, in its mildest form, is attended merely with redness, itching, and heat of the parts affected, which are generally either the toes, heels, or fingers, though sometimes the extremity of the nose, or ear, or parts about the metacarpus. In the next degree of severity, the parts are more swelled, redder, and so painful, that the patient is deprived of the use of them; and when the instep, or the back of the hand is the seat of the disease, the subcutaneous cellular membrane is swelled to twice or thrice its natural thickness, and the integuments are of a bluish or livid colour. In a still more severe form, chilblains produce vesication, or a rising of the cuticle, in consequence of the accumulation of a dark-coloured bloody serum under it. Vesications of this description are sometimes termed *phlyctenæ;* and, within them, the surface of the cutis frequently ulcerates, and the sores, thus occasioned, usually discharge a thin, ichorous matter, penetrate deeply, are excessively painful, and particularly indisposed to heal. The bottom of them presents a grayish, and often a fungous appearance; and sometimes their depth is such, that they penetrate beyond the cellular tissue, attacking the fasciæ and muscles, and giving rise to the most severe mischief. Neglected chilblains may bring on sloughing, and the pain of them is generally such as to deprive the patient of sleep and the use of the parts affected, and even to bring on a degree of fever. If, during the highest reaction of parts, consequent to a sudden transition from a very cold to a much warmer temperature, the skin retains a uniform red colour, a full turgid appearance, and increased sensibility, there is less danger of sloughing, than when the parts are livid, mottled, or marbled as it were, and totally void of pain. In general, vesications indicate a more superficial kind of mortification, than is denoted by the formation of grayish or black sloughs, over which no dark or bloody fluid accumulates. When the toes, fingers, heels, hands, feet, or other parts, after having been exposed to intense cold, lose their sensibility, shrivel up, or shrink, and assume a dark violet colour, sphacelus is to be apprehended.

With regard to the *causes of chilblains*, a predisposition to them exists in delicate constitutions, and they are rarely seen, except in children, females, and others brought up in a tender manner, and in the habit of going from the cold frosty air directly to the fire-side. Under these circumstances, the parts most remote from the centre of the circulation, being already, as it were, weakened by the exposure to cold,—having, as John Hunter would have expressed himself, a smaller quantity of life in them than natural, cannot bear the reaction excited by the transition to heat, and inflame, so as to be brought into the various states which I have described to you as attending chilblains. It has been sometimes thought, that scrofulous children are more liable to chilblains than others; and it is not an uncommon opinion, that a transition from heat to cold, as well as one from cold to heat, will bring them on; but these are points, not so certain as some others, which I have specified. It is true, however, that persons, who have been tenderly brought up, and have not been in the habit of being exposed to cold, suffer

more than those who have been accustomed and inured to severe extremes of weather. Hence, in the memorable retreat of the French from Moscow, the wreck of the army, which had been long exposed and habituated to intense cold, braved, with impunity, all the rigour of the season, while another fresher division of the same army, which had been in comfortable quarters at Wilna in Poland, and not inured to the severity of the climate, was almost annihilated by the intensity of the cold, on being compelled to join in the retreat. This proves that those, who are not habituated to exposure to cold, suffer more severely from it than others; and, on this principle, the going out of a warm apartment, or from the fire-side, suddenly into the frosty atmosphere, may be conducive to chilblains, in children and delicate females, whether scrofulous or not.

Gentlemen, the mildest form of chilblains, that which consists of a mere erythema of the part, simple redness, heat, and itching, may be relieved by rubbing the part with cold or iced water, or even snow, after which it should be wiped quite dry, and a soft leather sock applied to protect it from sudden transitions of temperature, by which what was at first only a very slight inflammation might be rendered severe, and even brought into the state of painful ulceration. However, you will find, that, in this country, the generality of patients do not admire these cold frictions; they think, that, as the complaint seems to proceed from exposure to cold, it cannot be relieved by the application of iced water, or snow. Hence, you will find it expedient, in many instances, to employ stimulating liniments, which are proved by experience to answer exceedingly well for the milder unbroken kinds of chilblains, completely free from ulceration. The stimulating liniments, in common use, are of several kinds, such as, a mixture of six parts of the *camphor liniment* and one of *laudanum*, a common application, and a very good one; or you may rub the part with the *tincture of myrrh*, or with six parts of *soap liniment* and one of the *tincture of cantharides*, a composition highly praised by Mr. Wardrop. However, it does not signify what kind of liniment is made use of, provided it be sufficiently, but not too stimulating. A mixture of two parts of *camphorated spirit* and one of *liquor plumbi acetatis*, is another good application, and I may say the same thing of the *linimentum ammoniæ*. To *broken chilblains*, or those which are *ulcerated*, you may first apply poultices, but these must soon be discontinued, and stimulating dressings substituted for them, as a mixture of *liquor plumbi acetatis* and *lime water*, in equal parts; the *unguentum resinæ flavæ*, to every ounce of which, one drachm of *red precipitate* is added; or, if you please, one or two drachms of *Peruvian balsam*. The *nitrate of silver* is also found to agree remarkably well with ulcerated chilblains. If lotions are used, the dressings must be renewed frequently, and covered with pledgets or oil-skin to prevent evaporation. When the parts are mortified they may be poulticed, and, as soon as the sloughs loosen, or come away, a mild astringent ointment is to be used first, and afterwards stimulating applications.

Gentlemen, I next proceed to the consideration of the *mechanical injuries of the body*, comprehending *Wounds*, *Fractures*, *Dislocations*, *Contusions* and *Sprains*. Probably, you understand well enough, without a definition, what a *wound* is; few of you, I presume, have not felt one; however, for the sake of form, I may mention, that, in the language of surgery, *a wound is a recent, suddenly formed breach of continuity in the soft parts, attended, at first, with hæmorrhage, and generally produced by an external mechanical cause;* I say *generally*, because we know, that injuries, very analogous to wounds may be produced by *internal* causes; thus, the violent action of muscles may not only break bones, but tear their own fibres asunder, or rupture the tendons, with which they are connected. These latter injuries are not termed *wounds*, though they are very analogous to them. But, when the sharp point of a broken bone pierces the integuments, and converts a *simple fracture* into a *compound* one, you will see what is truly a *wound*, according to every surgeon's view of the subject, and the cause of it is mechanical, though not external. Such wound, indeed, makes a great addition to the danger of the case, as I shall hereafter explain.

Gentlemen, in order to simplify the comprehension of the subject of wounds, surgeons have divided them into several classes, the distinctions being founded chiefly upon three circumstances: 1st, upon the kind of weapon with which the injury is done; 2dly, upon the circumstance of a venomous or deleterious matter being inserted in the wounded part; and 3rdly, upon the situation of the wound, and the nature of the injured parts themselves. Hence the first class of wounds consist of *cuts*, *incisions*, or *incised wounds*, produced by sharp-edged instruments, and generally free from all contusion and laceration, the textures having received no other injury than mere division. Hence, simple incised wounds have less tendency to inflammation, suppuration, and gangrene, than the generality of other wounds; and unless rendered dangerous, or difficult of cure, by the nature of the parts injured, they may commonly be healed with greater quickness and facility than any other kind of wound whatsoever; for, it is only necessary to keep them from gaping, or, in other words, to bring the surfaces of the divided textures together, and maintain them quietly in this state for two or three days, at the end of which short time a cure will often be accomplished with little or no pain, without any suppuration, and, in the most perfect manner conceivable.

2. Another class of wounds consists of those denominated *punctured*, comprising injuries,

varying in degree of severity from the prick of a needle, a pin, or a nail, to the stab of a stiletto, a sword, a lance, or a bayonet. Punctured wounds frequently penetrate to a great depth, so as to injure organs of much importance in the system, as large blood-vessels, nerves, excretory ducts, or the viscera of the chest, or abdomen; and, as they are generally done with a great deal of violence, the wounded parts suffer considerably more injury, than if they had been simply divided. Many of the weapons, with which punctured wounds are made, increase in diameter from the point to the hilt, and are thus formed something like a wedge, so as to cause great mischief from the force with which the textures are pressed, or torn asunder. Hence a violent contusion, and stretching of the textures, is produced. You will not, therefore, be surprised, when you hear that severe inflammation, extensive abscesses, and erysipelas, are frequent consequences of stabs, which are likewise oftener productive of dangerous constitutional symptoms than simple incised wounds.

3. The third class consists of *contused and lacerated wounds*, and, strictly speaking, includes, besides numerous cases produced by weapons, or machinery, which tear the parts, or by the forcible application of hard blunt bodies to them, those important injuries, denominated *gun-shot wounds*, which are interesting, not only because they so frequently demand the attention of the surgeon in time of war, but, because they illustrate, with the greatest perspicuity, some of the most important elementary doctrines in surgery. In proof of this, I may remind you, that Mr. Hunter, during the time that he served as an army surgeon, derived some of his most valuable inferences, respecting inflammation, suppuration, mortification, ulceration, and other rudimental parts of surgery, from the studious observation of the effects and consequences of gun-shot wounds. The bites of certain animals are also, in every sense of the expression, wounds accompanied both by contusion and laceration; in fact, wherever there is a solution of continuity, produced in a part by a blunt instrument, or by weapons which tear and bruise the injured textures, there must be a *contused*, and lacerated wound.

4. The next class of wounds comprehends those called *poisoned*, and which are complicated with the insertion of a venomous or deleterious matter in the part. As examples of *poisoned* wounds, we have *cuts* and *pricks* received in dissection, or in the performance of operations on parts or limbs affected with phagedenic and other diseases, or in dressing venereal ulcers, or opening venereal buboes. In these two last instances, if you happen to prick your finger, you will probably have a chancre; but the most remarkable examples of poisoned wounds are those, which follow the bites of venomous snakes and certain rabid animals.

Wounds are also divided into different classes, according to the *part* or *region* in which they take place; hence wounds of the *head*, the *neck*, the *chest*, the *abdomen*, &c.; or, according to their situation in *particular organs*, and we have, therefore, wounds of the *arteries*, the *veins*, the *stomach*, the *liver*, the *lungs*, &c. Another general observation, meriting your attention, is, that all wounds are either *simple* or *complicated*. Wounds are *simple* when they are produced in a healthy subject by a clean sharp instrument, are unattended with any serious symptoms, and the only indication is to bring the fresh-cut surfaces together. On the other hand, wounds are said to be *complicated* when the state of the wounded parts, or of the whole system, renders it necessary for you to deviate from the plan required for the treatment of a simple incised wound. Amongst the chief complications of wounds, I may notice *copious hæmorrhage; violent nervous symptoms; tetanus; excessive pain; much injury of the soft parts in addition to their mere division; the discharge or extravasation of certain fluids*, denoting the injury of particular viscera: *the lodgment of foreign bodies, or of poisonous or irritating substances; great loss of substance; attack of hospital gangrene; extensive inflammation; large abscesses, erysipelas, &c.*

All considerable wounds are attended with symptomatic fever, the symptoms of which you remember: such as a full, hard, accelerated pulse; suppression or diminution of various secretions; high-coloured urine; thirst; hot dry skin; head-ache; constipation; disturbance of the nervous system, &c.

I next, gentlemen, request your attention to the *prognosis* in wounds. The danger of a wound is greater in proportion to its size and depth, and the violence which may have been done to the part, in addition to the mere division of the textures; in proportion, likewise, to the magnitude or deep situation of the arteries or veins which may have been divided. A wound may be dangerous, too, on account of the inferior power which some parts possess of repairing their injuries; or on account of the importance of the functions of the wounded organ to the welfare of the whole economy. You must take into consideration, also, the age of the individual, and the general state of his health and constitution. All these circumstances influence the prognosis very materially. That the magnitude of the wound has a considerable influence in determining the favourable or unfavourable issue of the accident must be perfectly obvious. You will sometimes find, that when a surgeon has removed an immense adipose tumour, weighing, perhaps, thirty, forty, or fifty pounds, though he may not have injured any part of consequence, yet the size of the wound, necessary for the detachment of such a mass, will often lead to considerable danger; and I know of some cases, in which the patients died from the effects of the mere extent of the wound, when they would have recovered with facility, if the

tumours had been removed at an earlier period, while the size of them was moderate.

Then, gentlemen, you should understand, that contused, lacerated, and incised wounds of equal size are not curable with the same facility and sureness: the latter are a worse description of injuries than the former. When I was a student, a drayman was brought into St. Bartholomew's Hospital, who, while sitting on the edge of his dray, came in contact with an iron spike projecting from another cart, which tore the integuments off the tibia, to the extent of more than a foot; the leg rapidly mortified, and the man died. Had this wound been a cut, and not a laceration, such consequences would probably not have ensued. This was an instance in which amputation ought to have been done at the beginning of the mortification, because it was a case of traumatic gangrene, in which, as you well know, it is wrong to wait for the line of separation, as life may be lost before it forms; but, in the days to which I am alluding, surgeons were always afraid of amputating before the line of separation between the dead and living parts had been formed.

All contused, lacerated, and gun-shot wounds are, *cæteris paribus*, more dangerous and difficult of cure than simple incised ones, except when the latter involve arteries of great size, in which event, the hæmorrhage may be so profuse as to destroy the patient before the arrival of surgical assistance. In relation to hæmorrhage, indeed, no wounds are more dangerous than incised ones; for the bleeding from an artery, opened with a sharp instrument, is always disposed to be copious. Of course, when wounds penetrate into large joints, the accidents are of a serious nature; because, when the synovial membrane of such a joint is inflamed, the constitutional symptoms are always peculiarly severe; in fact, many patients have died, in consequence of wounds of the knee-joint, even when such wounds were the result of a surgical operation for the removal of loose cartilaginous substances from the cavity of the synovial membrane. It is the complication of the inflammation of the synovial membrane with a wound, however, that renders the case so dangerous; and, if there be no opening into the joint, the synovial membrane will bear a great deal of inflammation without risk to the system.

Gentlemen, I wish you also to remember that wounds are sometimes difficult of cure on another principle, namely, on account of the constant or frequent passage of fluids through them. This is exemplified in wounds of arteries, intestines, and of the excretory ducts or parietes of certain secreting organs. Then, gentlemen, I may remind you, that the slightest wound of an organ, whose functions are intimately connected with life, may be productive of the greatest danger, as is illustrated in injuries of the brain, cerebellum, medulla oblongata, and upper part of the spinal cord. Wounds of such organs are constantly productive of considerable danger, and frequently prove fatal. Patients often recover from wounds of the brain itself; while wounds of the cerebellum, medulla oblongata, and upper part of the spinal marrow, are more certainly fatal. You will find cases related in Hennen's Military Surgery, in Larrey's Campaigns, and in the Medico-Chirurgical Transactions, of most severe injuries of the brain, complicated with the entrance of pieces of gun-barrels and other foreign bodies into its substance, yet without the event being mortal.

The danger of certain wounds depends upon the effusion of irritating fluids into the cavity of the peritoneum, as when the gall-bladder is wounded and its contents escape; or when the urinary bladder is penetrated towards its fundus or posterior surface. It is scarcely necessary to say, that the size and situation of injured arteries must make a great difference in the prognosis. If the artery be very large, the patient may die instantly of the excessive hæmorrhage; or if it be in a particular situation, he may be suffocated by the effusion of blood into the trachea or bronchi. An individual may die either on account of the quantity of blood suddenly abstracted from the circulation, or in consequence of an inflammation, produced by its effusion into the cavities of serous membranes. Wounds of great vessels, or even of such as are of moderate size, but situated within the peritoneum, are mostly fatal, because you cannot get at them, and their situation promotes free hæmorrhage from them. Hence, the patient will die either of the quantity of blood abstracted from the circulation, of the pressure of the effused blood on important organs, or of the inflammation which it may excite: in wounds of the abdomen, the latter is the most common source of peril. Wounds of moderate arteries in such situations are attended with much greater danger, than wounds of even considerable arteries in the extremities, because here you can get at the vessels and tie them. Wounds, complicated with wounded arteries, it appears, then, may be dangerous, not only from the loss of blood, caused by such vessels being sometimes out of reach, or because surgical assistance is not at hand, but on other accounts. For instance, the wound of an arterial trunk may be followed by mortification of parts, to which such vessel is distributed. We may say, that there is a degree of such risk incurred, a risk always increased when a principal nervous trunk is simultaneously injured. It is well known to all surgeons of experience, that wounds of the upper extremities heal more readily than those of the lower limbs, which are further from the centre of the circulation. The nearness of the parts to the heart, and their great vascularity, explain why wounds of the face, neck, and external parts of the chest, commonly heal with surprising expedition. In fact, unless the patient be destroyed by hæmorrhage, these injuries soon get well, on account of the great vascularity of

the parts, and the vigorous circulation of blood in them.

There is another circumstance, gentlemen, affecting the prognosis of certain wounds, namely, some of these cases will not heal readily, because the part is unavoidably subject to frequent and constant motion. This remark applies to wounds of the diaphragm and parts about the throat, the trachea, larynx, pharynx, and œsophagus. These organs are continually disturbed by the muscles of deglutition, or by the motions of respiration, and an unfavourable influence produced upon their wounds. That the wounds of children and young healthy persons heal more favourably than those of old and feeble persons, or of such as have broken constitutions, is a fact requiring no comment.

The most dangerous wounds are cuts of the throat, and penetrating wounds of the chest and abdomen. The peril of wounds of the throat depends much on the chance of external hæmorrhage, while one great source of danger in wounds of the thorax and abdomen is internal hæmorrhage, or the effusion of the contents of certain viscera, leading to fatal degrees of inflammation in those cavities. Wounds of the chest are dangerous on another account, namely, they may become complicated with *emphysema*, or an extensive inflation of the cellular tissue. This may happen when, in consequence of the expansion of the chest, some air is drawn at every inspiration out of the wound in the surface of the lungs into the cavity of the pleura, and afterwards when the cavity of the chest is diminished in expiration, such air cannot return into the air-cells of the lung, because they are full, but is forced to pass through the division in the parietes of the chest. Thus, at each expiratory contraction of the chest, a portion of the air escapes into the cellular substance, and by degrees, the cellular membrane of the greater part of the body becomes enormously inflated, constituting the affection called *emphysema*. The presence of air in the common cellular membrane is not dangerous, but, at length, respiration cannot go on, in consequence of its being forced into interlobular cellular texture of the lung itself.

Then, gentlemen, in forming the prognosis, you must consider what accommodations the wounded person will have the benefit of; whether or not he will have the advantage of quietude, pure air, suitable medicines and dressings, and other things dictated by the principles of surgery. Hence, in private practice, with its superior advantages, you may often be justified in attempting to preserve a wounded limb, which, under the pressing circumstances of a campaign, it might be better to remove.

I next proceed, gentlemen, to the consideration of the particular classes of wounds; and first to that of *incised wounds*. The immediate effect of an incised wound is bleeding from the divided vessels, pain from the injury and exposure of nerves, and a gaping of the parts, or separation of the surfaces of the wound from one another. In what myriads the minute vessels must exist in every part, we may well conceive; for when we prick any part with the point of the finest needle, there is always effusion of blood; and the same experiment convinces us, that nerves must exist in equal abundance, for wherever a prick is made, how small soever it may be, there is pain. When, in an incised wound, the bleeding arteries are large, the hæmorrhage is exceedingly profuse; more so than when arteries, of similar magnitude, are injured by a contused or lacerated wound. The pain, directly consequent to the incision, is more or less acute, according to the kind of weapon inflicting the injury, and according to the state of the individual's mind at the moment; hence, in operations, when the patient is timid, and expects to be put to pain, he suffers a great deal more than one who does not expect it, or whose mind is diverted at the time of receiving the injury. Thus, soldiers and sailors often receive dreadful wounds, without feeling any pain; sometimes whole limbs are shot off, and, for two or three minutes, the individual is hardly conscious of having been injured. The separation of the edges of the wound is owing to the natural elasticity of the skin and cellular membrane, and when the wound penetrates deeply enough, to the contraction of muscles, if their fibres happen to be cut transversely. The blades of cutting instruments are generally very thin, and hence, although they are all, in a slight degree, of a wedge-like form, they cannot produce any material separation of the parts, so that we must look to other causes for an explanation of the gaping of incised wounds. Some of those causes I have already specified. The ends of divided arteries recede very much, and one portion of them is so elastic as to be denominated the *elastic coat;* but the ends of divided veins recede in a less degree. The position of the wounded limb, or part, causes some difference also in the extent of separation, and you will find, that generally the most favourable position for bringing the parts together is that in which the origins and insertions of the muscles approximate most, or, in other words, that in which the muscles are relaxed.

The most dangerous incised wounds, commonly met with, are those of the neck and throat, generally in cases of attempted suicide: here important vessels and nerves, and other organs, may be injured. Sometimes the carotid artery is cut, and the patient dies before assistance can be procured, but, in the greater number of instances, the person cuts too high, and then he only wounds some of the primary branches of the external carotid; he does not usually bleed to death at once, but faints, after having lost a certain quantity of blood. The hæmorrhage is then suspended, and time is given for the arrival of the surgeon, who saves the individual's life by tying the divided vessels. I have known a wound of the throat

prove fatal from hæmorrhage, though no artery of any size was cut. A case of this kind occurred, about two years ago, in the King's Bench Prison: a gentleman, who was confined there, in an interview with some friends, became much affected by something that transpired in conversation; he went into his room and cut his throat; dividing the external jugular vein and the trachea, but no artery of magnitude. It was twenty minutes before any thing was known of the accident, and, in the meantime, the blood had passed from the vein into the trachea, and when the surgeon went in, the poor fellow was at the point of death from suffocation. The quantity of blood lost was very trivial.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832-33.

LECTURE XI.

Delirium Tremens—Scruple Doses of Calomel in Acute Inflammations — Mercurial Inunction to the Axillæ—Excessive Depletion improper in Pneumonia, though proper in Bronchitis—Pneumonia with Hepatitis—Otitis ending in Phrenitis—Formulæ for Effervescing Draughts, and when combined with Tonics—Rheumatic Fever.

Gentlemen,—I return to the case of William Fox, the catalogue of whose diseases I have given in my last lecture. I made some remarks on the peculiar form of delirium observed in this man, its connexion with his habits of intemperance, and the causes from which it springs. With respect to the herpetic eruption, it is not necessary that I should say much, except that you will most commonly find it combined with a feverish state of the system, which is said to be produced by cold. I shall also pass over his other diseases, and proceed to a more important point—the mode of treatment to be pursued. Here we had a number of co-existing diseases, varying in their seat and character, presenting a complexity of indications, and requiring a nice adaptation of remedial means. Fortunately, every thing but the delirium tremens depended on inflammation: they were all inflammatory diseases. This gave us an opportunity of employing the antiphlogistic plan of treatment, and we adopted it. Tartar emetic could not be given in consequence of the state of his stomach and bowels; and its utility, so far as hepatitis was concerned, was extremely doubtful. It might have been prescribed for the delirium tremens with some prospect of advantage, for delirium tremens is accompanied by a degree of vascular excitement, for which bleeding cannot be safely employed without depressing the system; and opium is contra-indicated from its tendency to increase congestion: and here, as the safest means of combating the disease, you have recourse to tartar emetic. You begin with the tartar emetic; you then add a little opium, and thus go on gradually increasing the latter until you cease to give the former, and use opium alone. Opium, if given in the beginning, will increase the congestion and bring on subarachnoid effusion. I treated a case of delirium tremens in this way too boldly, and the man died with subarachnoid effusion; it was a lesson to me, and I would advise you to profit by my experience. Where you have congestion with this delirium, bleed or leech; and if you are doubtful of the issue of blood-letting, or convinced that it is dangerous, give tartar emetic with or without opium, according to circumstances. In the present instance, there were other affections, namely, the pneumonia and bronchitis, which called for the use of the lancet. We bled this man, therefore, as far as his strength would allow, and applied leeches to the epigastrium. He then got calomel in large doses, without opium, in such a manner as to bring him rapidly under its influence. The manner in which I prescribed is that which is practised by most physicians and surgeons in the East Indies. I put about a scruple of calomel on the tongue, and let the patient swallow it without any liquid, or wash it down with a little cold water.

We had a case of violent peritonitis some time ago, in the Fever Ward, attended by inflammation of the stomach and bowels. The woman could not bear the slightest pressure on the abdomen: she would not even allow it to be touched. The discharges from her bowels were very copious, and exactly like boiled greens or spinach. We were anxious to get her, as rapidly as possible, under the influence of mercury; and you perceive we did this in the quickest way by scruple doses of the submuriate. It is also remarkable, that calomel, by itself, will rest almost better than any other medicine on an irritable stomach. Well, we gave this man calomel; we also applied mercurial ointment by friction to the axillæ. This was followed by a happy effect. We found, that in proportion as the mercury affected the system, the inflammation declined, the belly became soft and natural, the stomach began to retain and relish food, the size of the liver diminished, and the pneumonia and bronchitis disappeared. We could scarcely hope for this favourable termination; but, you see, the fellow, though of intemperate and dissolute habits, has an excellent constitution; and one would be almost inclined to wish that some more meritorious person was favoured with his vigorous and enduring frame.

I have to make one observation on bleeding in pneumonia. This disease is, at present, somewhat like an epidemic, for, during the last month, we have had every week four or five cases of genuine pneumonic inflammation. One of these patients has died: he had hepatization of the left lung from top to bottom.

We were aware, from the beginning, that his case was hopeless. In the rest, we have been uniformly successful; some are at present recovering, and others have been dismissed cured. We have used the lancet in treating them; but not one of our patients has been blooded largely. In general, two venesections, each of twelve ounces, were found sufficient; sometimes the sum of the bleedings amounted to thirty-six ounces; and very rarely have I been ever obliged, in the treatment of pneumonia, to take more than fifty ounces during the whole course of the disease. Bear this in mind, for you will hear many persons maintain, that much more copious venesection is necessary. You will hear them boast of having drawn forty, fifty, or even sixty ounces of blood in one or two bleedings. This heroic use of the lancet is generally uncalled for in pneumonia, and argues a want of tact in the practitioner; for were he acquainted with the mode of employing other remedies in this disease, he would not trust solely to venesection. Whatever inconsiderate persons may think, it is of the greatest importance to cure disease with the least possible loss of blood; for you may rely on it, that every ounce of healthy blood you take away, is shortly replaced by two ounces very far inferior in quality. Persons much debilitated by disease are in a dangerous state. Protracted convalescence is always unsafe; therefore it is clear that it should be a paramount object of the physician to cure his patients with as little loss of blood as possible.

Recollect, therefore, that you can cure a pneumonic attack by moderate bleeding, and without injuriously weakening the strength of your patient. Far be it from me to decry the use of the lancet, a practice which has the unquestionable sanction of time and experience; but I may be permitted to express my doubts whether pneumonia be a disease which demands the heroic employment of the lancet. I think that a man labouring under severe bronchitis requires nearly twice the sanguineous depletion necessary to subdue a case of genuine pneumonia. You perceived that we have adapted different plans of treatment in pulmonary disease, according to the various circumstances of our patients. We frequently find that inflammation of the lungs may be cut short completely. In the same way bronchitis may be arrested in twenty-four hours. If you happen to visit a case at its very commencement, you have an opportunity of staying its progress; but if this boundary be passed, all you can do is to conduct it safely through its successive phases. A person is admitted into hospital who has been eight days, or perhaps longer, ill; one part of his lung is in a state of active pneumonia, and, in another part, hepatization has taken place. Here you cannot overcome the malady in a day. In this stage you may be obliged to bleed, but you can only bleed in small quantity; you are to have recourse to tartar emetic: of this I shall say nothing; you all know the treatment, and the rules by which it is to be guided. You are aware that if there be inflammation of the stomach and bowels, you must abstain from the use of this remedy, lest you increase the intestinal symptoms and produce a dangerous effect on these organs. Here you must give calomel. If I were asked too, what I would prescribe in such cases where hepatitis was combined with the pulmonary affection, I would say, calomel. Under such circumstances I prefer it to tartar emetic (even though the stomach might be capable of bearing the tartarized antimony); it is a valuable remedy, and its power of arresting inflammation is known and acknowledged. The longer pneumonia has lasted, the less likely are we to derive benefit from tartar emetic, and consequently, in most of the cases which are accompanied by decided hepatization, you observe, that we prefer moderate but repeated doses of calomel, until the mouth is distinctly but not severely affected.

I will direct your attention now to the case of Sarah Connor, whose disease was of so insidious a character, that its true nature totally escaped our notice. This woman was admitted on the 22d of November, with pain in the head and discharge from the external meatus. I examined the ear with the assistance of a candle, and observed, that the meatus externus was covered with puriform discharge, but I could not detect any perforation of the membrana tympani. The mastoid process was somewhat tender on pressure, and she complained of some head-ache, and moaned constantly; but altogether the examination was a very unsatisfactory one, from the manner in which she was affected at that time. She had heard of her husband's death on the day after her admission, and when I entered the ward, she was sitting up in bed, moaning and rocking to and fro, absorbed in grief, and incapable or unwilling to give me any information. Looking on her symptoms as the result of deep sorrow for her husband's death, I gave her as much consolation as I could afford, and did not wish to do any thing while the impression of grief remained so vivid. You will have occasion to observe, in the course of your practice, particularly in private families, that persons deeply affected by any domestic calamity will be attacked by various and anomalous forms of disease. You cannot, in such cases, interfere strongly, for you may do mischief; you only give a little nitre whey, recommend a warm bath or pediluvium, and make your patient go to bed; repose will more calmly and safely restore the exhausted energies of nature. Hence, in this poor woman's case, where the feeling of sorrow was so intense (for strong feelings are not limited to the rich), I thought it best to wait until the first strong burst of emotion had passed away. The moaning, however, continued, and this I direct your attention to, as a

symptom of disease of the brain. We lost this woman from a want of active treatment, and the source of the error was in her condition arising from the circumstance before alluded to. The following is the history of her case, noted by Mr. Martin:—

"Sally Connor, æt. suæ 40; has been ill four weeks previous to admission; but, on account of the excessive grief under which she labours, in consequence of her husband's death, no exact account of her symptoms previously to the time of admission can be obtained. She had at first the ordinary symptoms of acute otitis, supposed to arise from cold. Eight days after the acute attack came on, she had a discharge of matter from the ear, which gave no relief; and with this exception there has been no variation in her symptoms up to the period of admission.

"She at present complains of constant pain in the ear, shooting towards the forehead and behind the ear; increased by pressure, coughing, deglutition, or mastication, and the mastoid process presents some degree of elevation, and feels tender on pressure. She has no mental aberration; answers questions in a perfectly rational manner, but generally lies with her back turned to the light, and her hands placed across her forehead. She moans frequently, but alleges that grief is the cause. She has some cough, with slight expectoration; the stomach is irritable, and rejects fluids, but there is no epigastric tenderness; tongue furred, bowels confined, skin moist, pulse very slow and compressible."

Here, gentlemen, you have a disease commencing with pain in the ear, which, after eight days, is followed by discharge of matter. The woman, on admission, is in her perfect senses; there is no mental aberration, no convulsions or coma. What are the symptoms which ought to claim our attention? The pain and tenderness of the mastoid process, the constant moaning, the tendency to avert the head from the light, and the position of the hands laid across the forehead. These symptoms are frequently observed in such cases, and you will find them laid down by Rostan, Lallemand, and other writers. So far, for symptoms which were obviously cerebral. But what would put you off your guard in this case was, that there was nothing about the eye indicating an affection of the brain: she also had a little sleep. But how was her stomach and bowels? The latter were confined; the former rejected all ingesta, though there was no pain on pressure. This is a common occurrence in hydrocephalus and other diseases of the brain; the belly remains soft, natural, and capable of bearing pressure, and the patient is constantly vomiting. I proceed with the case.

"Nov. 22. Leeches behind the affected ear, and aperient medicines.

"23. Much the same. Ordered an injection of sulphate of zinc for the ear, and a blister behind it; five grains of blue pill, one of ipecacuanha, and half a grain of capsicum, three times a day.

"24. Discharge continues; symptoms as before; to have a purgative enema.

"25. Appears much oppressed; pulse very slow and weak; tongue furred; bowels opened; pain in the forehead complained of; purulent discharge from the ear continues. Rep. enema. emplast. vesicat. inter scapulas.

"26. Quite comatose; pupils dilated; face turgid and purplish; extremities cold; pulse very quick, small, and irregular. She died in the evening."

For an accurate and able description of the phenomena observed on dissection, I am indebted to Mr. Campbell of Park-street, who opened the body; it is as follows:—

"Veins of the neck unusually turgid; great vascularity of the scalp, skull, and dura mater; surface of the arachnoid membrane dry and shining; unusual arterial vascularity of the pia mater; substance of the brain firm and remarkably vascular; septum lucidum destroyed, and both lateral ventricles filled with a greenish-coloured serum, containing flakes of lymph and portions of softened brain; walls of the left lateral ventricle dark coloured, vascular, and so soft as to break down on the slightest touch; a large abscess, filled with thick, greenish, fœtid pus, occupied the entire of the middle lobe of the left hemisphere; the cyst of this abscess had a cartilaginous hardness, and was extremely vascular; the substance of the brain surrounding it was soft, and very like putrid brain; the lower part of this abscess adhered intimately to the upper margin of the petrous portion of the temporal bone, the bone at that point being evidently carious and in contact with the contents of the abscess."

Here we have disease of the temporal bone, spreading on the one hand to the external meatus through the membrana tympani, and on the other hand, into the substance of the brain, so as to form abscess. In cases of abscess in the cerebral substance, you frequently find effusion of serum, mixed with lymph, into the ventricles, and also softening of the substance of the brain in their vicinity: such was the case in the present instance. Which of these was the first lesion? From the history of the case, and from the remarks on the subject by Dr. Abercromby, you will be led to infer that the disease of the petrous portion of the temporal bone was probably the original mischief. You will find many similar cases in Dr. Abercromby's work; and here I may observe to you, that in a few pages of his work you will gain more information than by all that has been written on this subject by Lallemand, Rostan, and Itard. It is a disease which is always insidious in its progress, and we frequently ascertain its existence only when it is too late. Sometimes it terminates in convulsions—sometimes in coma; the reason of this has not been explained. Much has been written about the distinction to be made be-

tween diseases of the membranes and of the substance of the brain; this is also a doubtful point; I think we cannot distinguish between them. With respect to the present case, you perceive we could not detect, during life, any perforation of the membrana tympani, yet it was found after death. I am confident, however, that we may have discharge from the ear from inflammation of the external meatus before ulceration has made an opening in the membrana tympani, and hence in such cases we are not to infer that there is no disease of the petrous portion of the temporal bone. You should also remark, that this woman had none of those tonic spasms before death which are stated in some works to attend the termination of ramollissement. You will find it stated, that, in ramollissement, the extremities of the opposite side are affected by tonic spasms; this did not appear in the present case, and is another proof of the difficulty of distinguishing the various affections of the brain.

We had a woman in fever here some time ago, to whom we gave the carbonate of ammonia in a state of effervescence; and as the form in which we administered it proves extremely useful, I think it necessary to remind you of it. The carbonate of ammonia is given in excess, in the proportion of about two grains and a half in each draught, as you will perceive by the formula employed. ℞ Aquæ fontis, ℥vss.; syrupi zingiberis, ℥ij.; carbonat. ammoniæ, ʒj.; signetur, No. 1. The syrup of ginger is used to cover the taste produced by the excess of ammonia and to prolong the effervescence. Every thing syrupy prevents the too rapid escape of the carbonic acid. If the acid and alkaline solutions consist of water alone, there is an instant extrication of carbonic acid, and it escapes, as it were, in a very rapid succession of bubbles; the patient scarcely has raised the vessel to his lips, when the effervescence is over. The syrup thickens the water, and thus offers a resistance to the extrication of the fixed air, and moreover gives the mixture a more agreeable flavour. You next proceed to prescribe the acid solution, as follows: ℞. Acidi citrici, ʒj. Aquæ fontis, ℥iij., signetur No. 2, and then you add sumantur cochlearia ij. ampla ex. No. 1; effervescentia cum cochleare j. amplo ex. No. 2. You perceive, gentlemen, that I am not so poetical as Dr. Paris, who, with a phraseology almost Homeric, says, "*Sumatur in impetu ipso effervescentiæ* †."

Indeed, gentlemen, it is high time to abandon altogether the custom of writing prescriptions in Latin; it originated in the dark ages, when the avenues of knowledge were closed against all but the initiated, and consequently it was *their* interest to use a dead language, not understood by the vulgar. Were it the custom to clothe our ideas in a homely English garb, many an eminent surgeon and physician would escape the shaft of ridicule for such Latin as that attributed to one of the surgeons of a London Hospital by the Lancet of January 12th. In the report of one case, the phrase "repetatur balnea" is twice repeated. This Latin is more worthy of Bartholomew Fair than Bartholomew's Hospital.

Where effervescing draughts are indicated in the latter stages of protracted nervous fevers, and when it is, at the same time, necessary to administer moderate doses of diffusible stimuli, their combination will be found very beneficial.

I have said, that the carbonate of ammonia in these draughts is in excess, for one drachm of this salt would require seventy-eight grains of tartaric, or citric acids, to form a neutral compound. When, therefore, you wish to order effervescing draughts, without any notable excess either of acid or alkali, you may prescribe one drachm of carbonate of ammonia in No. 1, and eighty grains of acid in No. 2. These quantities will be sufficient to make six effervescing draughts. If the disease is more of an inflammatory nature, carbonate or bicarbonate of soda should be preferred. Three drachms of the crystallized carbonate of soda will be required in No. 1 to make six draughts to be taken effervescing, with 100 grains of acid in No. 2. When the bicarbonate is used, the quantity of alkali and acid ought to be ʒij. and 140 grains respectively. Let us, therefore, for the sake of impressing on the memory, place, in a tabular form, these relative quantities:

Alkaline solution, six ounces.		*Acid solution, three ounces.*	
Carbonate * of ammonia . . .	ʒj.	... Tartaric, or citric acids .	80 grains.
Carbonate of soda	ʒiij.	... Ditto .	100 grains.
Bicarbonate of soda	ʒij.	... Ditto .	140 grains.

These proportions of acids and alkalies form effervescing draughts, in which the acid is *quam proximè*, exactly sufficient to decompose the carbonated alkali. In general practice, the same alkaline solutions are ordered to be taken with a table-spoonful of lemon-juice to two of the solution. This is evidently a very incorrect method, for if this quantity of lemon-juice is reckoned equivalent to seventeen grains of citric or tartaric acids, then it is obvious, that six table-spoonfuls are equivalent to 102 grains of acid. This quantity of lemon-

* The salt, commonly called carbonate of ammonia, is properly a bicarbonate.

† "So spake the guardian of the Trojan state,
Then rush'd impetuous through the Iœan gate:
Him Paris followed."
Pope's Iliad.

juice, therefore, is *quam proximè* sufficient, when carbonate of soda is used, but it is too much when carbonate of ammonia, and it is too little when bicarbonate of soda is used. In common cases, this slight excess of either acid or alkali is of no importance, but it not unfrequently happens in fever and inflammatory diseases, that urgent thirst or nausea require the frequent administration of effervescing draughts, while, at the same time, the internal exhibition of calomel, blue-pill, or James's powder is indicated. When this occurs, it is of great consequence that the acid used in the draughts should not be in excess, as it might occasion griping and diarrhœa, and consequently, in such cases, I prescribe the acid solution instead of lemon-juice, as its strength is known, and may be regulated with certainty. In protracted fevers, it is often desirable to combine these effervescing draughts with something tonic, which may be conveniently effected by using infusion of bark instead of water in No. 1.

This combination, particularly when the carbonate of ammonia is in excess, I have often found very useful and grateful to the patient: occasionally, one or two drops of black drop may be given with each draught. I have seen this combination, given every third hour, productive of the greatest benefit in cases where the eye is clear but the brain is affected, and the cerebral derangement is often found to terminate in temporary idiotcy. In such cases there is a necessity for a combination of tonics and stimulants with opiates.

Having said so much, I shall make but a few observations on a case of rheumatic fever we had lately in hospital. The patient had at first fever and inflammation of the joints; the fever was removed by appropriate treatment, but the inflammation of the joints continued; the fever set in again and the arthritic affection increased, and we removed both. He relapsed again, the fever re-appeared, but there was no inflammation of the joints. Here we have a man admitted with rheumatic fever and inflammation of the joints; we try to cure the disease, and we succeed in removing the fever; but the joints remain inflamed; we remove this also, and congratulate ourselves on a recovery, and we again have fever and arthritic inflammation; we overcome this; and again a relapse comes on: but mark the difference, we have now fever, but the joints are unaffected. This is a curious circumstance, and confirms me in an opinion I have entertained for some time, that we may have rheumatic fever without inflammation of the joints. Rheumatic fever is usually distinguished by being accompanied by pain, swelling, and redness of the joints; but I have remarked, long since, that this fever presents several other peculiarities. We have, as in other fevers, great heat, occasional tendency to sweating, and hard quickened pulse; we have the urine at first pale, then high coloured, and the blood buffed. But we have no affection of the sensorial functions, no head-ache, and when pain permits, rest; sleep is not proportionally impaired, the tongue is furred, but the appetite is frequently good, there is no nausea, no disgust at food. These peculiarities I have frequently remarked, but it was only lately that I became aware that this species of fever may exist without inflammation of the joints. It is well known, that the affection of the joints may exist without the fever. The combination of these two distinct, but frequently associated affections, constitutes the disease termed rheumatic fever. This explains the reason why we must wait until a certain period, until the fever subsides, before we give tonics. We commence with antiphlogistics, then we employ specifics, such as mercury or colchicum, and afterwards we give tonics.

CLINICAL LECTURES

DELIVERED

BY DR. ELLIOTSON,

At St. Thomas's Hospital, Session 1832-1833.

LECTURE X.

Acute Pleuritis—Affections of the Lungs in this Disease—Signs by Auscultation—Ægophony—Difference between Chronic and Acute Pleurisy—Different Signs afforded by Percussion and Auscultation in different positions of the Patient--When Adhesions and not Adhesions different—Buffy State of Blood in serous Inflammations—Remarkable Effect of Calomel in Inflammations, well exemplified by this Case—Acute Pleuritis not subdued by the Effect of it—Calomel not a new Remedy—A most valuable Paper on Effects of Mercury, by Dr. Hamilton, upwards of 40 *Years ago, one which every Practitioner ought to possess—Mercury specific for all Inflammations—How first brought into Notice in this Country—Its extraordinary Effect on Phrenitis and Paraphrenitis—Excellent Effect of Calomel in Rheumatism and Gout—Efficacy of Blisters in advanced Inflammation—Most Relief in Phrenitis and Paraphrenitis when Blisters applied to the lower Extremities more than Head—Discovery of Hydrocyanic Acid—The Professor's singular Discovery—Priority of Discovery disputed by Dr. Thomson—Dr. Elliotson's Claims—This Remedy used many Years ago in Germany.*

Gentlemen,—There is a case in the hospital, to which I am anxious to draw your attention, therefore I have selected it for to-day's lecture. It is a case of very severe pleurisy, which was treated successfully by bleeding and the free use of mercury; it illustrates an excellent example of this disease, and the great beneficial effects of mercury in arresting active inflammation. I will read the case to you first from the clinical note-book. John Willoughby, aged 29, a policeman, of strong robust appearance, admitted, January 21st, into the hospital,

and said then, that he had been ill two days. From his statement, he at first felt very hot, and sweat profusely during the night; at this time also he felt pains in all his limbs, with occasional fits of cold shivers. The next day, the pains in the limbs had somewhat subsided, and he was then taken with acute pain low down in the left side of his chest, accompanied with slight cough; these symptoms were ushered in by rigors. Then, when brought to the hospital, two days after he was taken ill, he was suffering from the same acute pain low down on the left side, much aggravated by each inspiration. His countenance was very anxious and slightly flushed, tongue coated with yellowish fur and red at the edges. On listening to the affected side, a crepitous rattle was heard, indicating also an affection of the lungs. Bowels were regular; urine rather scanty and high coloured; he felt thirsty; and his pulse was strong, hard, frequent, and vibrating. These symptoms he attributed to cold, from getting wet, and being out at night. Now, when serous membranes are affected, the pain is generally of a very acute, sharp, stabbing nature, much more severe in serous inflammations than inflammations of any other tissue, but should there be ulceration going on in the pleura at the same time, although severe, it is not of that stabbing nature; neither in chronic inflammation of the pleura is the pain so very severe; but in active inflammations of serous membranes, besides this excruciating pain, there is a hard sharp pulse. This man had a sharp strong pulse of a vibrating character, besides other symptoms of severe inflammation, thirst, heat, and high-coloured urine; his respiration was also diminished. In pleuritis, the inspirations are short and hurried, also attended with excessive pain and slight cough; the pain in the chest is further characterized by being low down, even appear lower than the inflammation really exists; but, of course, the pain is sometimes differently situated, though in general it is felt very low down. Some writers say the pain is never felt at the inflammatory point, many declare, in very severe attacks of pleuritis, the pain is not felt near the point of inflammation: but I must confess I have never seen this. Andral states he has seen some cases of pleurisy without the pain being experienced at all in the chest, though the other symptoms of the affection have been very severe; besides the symptoms I have named, there is generally tenderness on pressing between the ribs, though, on pressing the ribs themselves, there is no pain, unless you press them very hard, and in these cases the affection must be very severe; we seldom have it so acute as this: the patients cannot lie upon the affected side, they will sometimes lie upon the healthy one, but on this generally they will not rest long, but will turn partially over, so as not to be on the one side or other, but between the two, generally, rather inclined more to the healthy side than the affected one. There is also, very frequently, a slight cough in pleuritis, even when there is not any affection of the lungs. We find always, in acute inflammation of the liver, or of its peritoneal covering, a slight dry cough, so also we have in an acute affection of the pleura; however, there are exceptions, for cases have occurred when no cough has been present. Now, in this case, without the aid of the stethescope, I could not have told there existed with it any affection of the lungs, although, from the symptoms, without this instrument, I might have told there was no affection of the pleura; on listening, then, the crepitous rattle was heard, which very frequently is caused by effusion of fluid into the air-cells, the air passing through this fluid forms small bubbles, which break and cause this sound, it is very similar, and the same noise is heard when the porter is first drawn.

The disease of the pleura, as I have said before, is made out without the stethescope, from the stabbing character of the pain, from its being situated low down, from the tenderness on pressure between the intercostal spaces, taking also into consideration the febrile symptoms, and dry cough which accompanies it. This affection is treated by some with bleeding and mercury, others treat by blood-letting only, and say mercury is of no use; and it is those kind of people that say the stethescope is useless; they prejudice themselves against it without giving themselves the trouble of learning its use; and for a similar reason they will not use mercury You will also observe, in this disease, that the movements of the chest are materially affected, at least on that side where the disease is present, in respiration; the side affected in inspiration will scarcely, if at all, be dilated, and at each inspiration, which is short and quick, he will suffer much pain. After a time, effusion takes place, which is generally the case in all serous inflammations, and the quicker the effusion is poured out, the sooner it is again absorbed; sometimes, however, it is effused very slowly, and some time will elapse before you can discover it. The effusion varies as to its nature; sometimes it is like whey, other times it contains flakes of matter upon its surface; again, at others, pure fibrin is poured out; other times again, the fibrin is mixed with serum. After this effusion has taken place, on percussion, a dead sound is heard, and, on listening, the respiration is not heard, in consequence of there being fluid situated between the lung and the ribs, and it is this that causes the dead sound on percussion, and, although the lungs are filled as before with air, this prevents the respiratory murmur from being heard. When there is only a small quantity of fluid, and the patient sits up in bed, a dull sound will be heard on striking the lower part of the chest, and no respiration; but, in the upper part, on percussion, a clear sound will be emitted and respiration heard; but, of course, if you alter the positions of your patient, so are the signs of auscultation and percussion also altered. For

instance, if the patient was to lie with his head and chest lower than the other parts of his body, then on striking the lower part of his chest, you would have a hollow sound, and, on listening, you would hear respiration, but on the upper part of the chest you would, of course, have it contrary; so, according to the position you placed your patient, so would you be guided by your hand and stethescope. Although effusion may have taken place to a very great extent, yet there is one place near the spine where you can always hear respiration, and a hollow sound is emitted on percussion. This is a very necessary point for you to recollect; for here, whatever quantity of fluid may be effused in the pleura, the lungs are not compressed, and at this spot respiration always, in this affection, can be heard; the same thing occurs if a quantity of air occupies the cavity of the pleura, whereas, if the lungs be consolidated in this part, here, like every other part of the lungs, the respiration is not heard if this latter disease exists; so in this part you may always give a correct diagnosis, for if there is consolidatiou of the lungs in this part, a dead sound is emitted on percussion, the same as if any other part of the lung was affected, and, as I have said before, no respiration is heard. When effusion exists in the pleura, there is another characteristic symptom takes place, which I have named at a former lecture; this is that singular sound, like Punch, heard by the stethescope when the patient speaks; the sound is not unlike a person speaking through his nose, or like the noise made by the mouth with a comb; still, however, this sound is more easily recognized than described. Also, we observe, in this disease, one side of the chest looking larger than the other; it is not much larger, but yet to the eye it appears so, and when measured, a very little difference is found; and on listening, this sound, which I have been describing, called ægophony, from its resemblance to the noise of a goat, is heard, and this is more frequently found than at any other part of the chest, near the inferior angle of the scapula: and when you are going to examine a patient for this sound, it will save you in general a great deal of time by examining in this part, for, when it exists, you may generally hear it at this point; and the next place where it most frequently occurs to this, is the lower part of the back of the chest, rather nearer to the spine, but in general you may hear it at the angle of the scapula.

Effusion taking place after a severe attack of pleurisy is not a bad symptom; and it is very frequently that we find the inflammation subside without any effusion of fluid, and, should it take place, I think it rather a good sign than otherwise. Should, however, this effusion be very great, you cannot have ægophony, and if there is but a small quantity, you may easily distinguish it; but, as the fluid increases, this sound diminishes, and, should the fluid increase to a great extent, the breathing becomes difficult, a dead sound is emitted on percussion over the whole of the affected side, and the ægophony disappears; the lungs, from compression, are incapable of expanding, and the respiration is not heard on that side, except at the spine of the scapula, and if the fluid becomes absorbed again, the ægophony returns, the lungs expand, which is the cause of this sound returning. So, then, for this ægophony to take place, there must only be a small quantity of fluid between the ribs and lung, and the thinner the layer of fluid, the more distinctly it is heard. Now, if you change the position of your patient, so as to cause all the fluid to be collected in one spot, this sound will not be heard; for instance, suppose he is lying upon his chest, and you could distinguish the ægophony on his back, by letting him lie again upon his back, so as you might be able to apply the stethescope on the same point, the goat-sound would not be heard; you can also always hear this sound better at the edge of the fluid than you can in the body of it, and if you hear the sound in any particular part of the chest, then alter the position of your patient, the sound also would vary or entirely disappear. There was a case in this hospital, two years ago, in which the ægophony was distinctly heard; the man was attacked with profuse sweating, the fluid soon became absorbed, and the ægophony vanished. The sweating in this case appeared to cause the absorption to take place much quicker than it otherwise would, and in this instance the sweating appeared critical; though, without this, in general, we find the fluid pretty quickly absorbed, and you can do nothing more than subdue the inflammation, and take care if possible to prevent its occurrence, and the fluid goes away. The respiration, in children, is heard more distinctly and even louder than in the adult. Now, if the effusion be great, so as to compress the lung of the affected side, you will hear what is called the puerile respiration in the lung of the opposite side; this is frequently the case from severe pleuritis.

We often find, after acute pleuritis, the effusion much less than from this chronic affection; it is seldom from the severe form of the disease the chest bulges out, though in the chronic it is a very common circumstance, and the affected side not only appears larger to the eye, but it also measures larger: this, however, is not always the case. When, in the chronic stage, there is effusion in the chest, and adhesions exist at the same time, so that the fluid is confined to one part, if you alter in such a case the position of the patient, the different sounds caused by the presence of the effusion of course must remain in the same spot, and not be heard in different parts, as I spoke of when no adhesions were present; for should there be a dull sound below and a hollow one above, and you alter the positions of your patient, the sounds emitted are the same. You would likewise hear the respiratory murmur above, where the clear sound

was emitted, but below no respiration would be heard in the situation of the dull sound; so, of course, adhesions will, for the same reason, prevent the sounds of ægophony from being heard in different parts, when the position of the patient is altered, but will continually be heard in one spot, and that where the fluid is confined. This case under consideration afforded very striking symptoms of this disease, and illustrated, very forcibly, as you must have seen, the beneficial effects of the treatment adopted. When admitted, on the 21st, his symptoms were so violent, that he was very properly bled to a pint before I saw him. The blood generally, in serous inflammations, is exceedingly sizy and fibrous, which was the case in this instance. In mucous inflammations, the blood is not always buffed; but in serous and fibrous inflammations, it is a rare thing for the blood not to be buffed and cupped. The pain, before I saw him, had been somewhat relieved from the bleeding; but at that time he was as bad as before. I now had him bled to fainting, without specifying any particular quantity to be taken. At this time, also, I ordered him to take five grains of calomel every three hours; and, to cause counter-irritation as speedily as possible, ordered a mustard poultice to be applied to the side affected. He appeared in the evening again somewhat relieved from this bleeding, and syncope was not produced until eighteen ounces of blood were extracted: the blood now was much buffed and cupped. The next day after this he suffered nearly as bad as ever; and to show how tense the inflammation was, he could not bear the least pressure between the ribs. The crepitous rattle was of course still heard; his pulse was smaller than yesterday, but yet strong and vibrating. He was now bled again until syncope was produced; had twenty ounces more of blood taken from his arm; his bowels remained pretty regular; and he was kept upon slops, though he scarcely took any kind of nourishment. From this treatment he again, for a short time, appeared to have great relief; and about three o'clock on the afternoon of the 23d, the next day after I saw him, he refused to take his pills, for he appeared to recollect, some years ago, being profusely salivated; and he so much dreaded this would be the case again, that he would not take them, for he was certain they were mercury. The pain at this time returned again; the inflammation appeared to have increased; but his pulse was still hard, though not so much so as yesterday. Thirty-two more ounces of blood were now taken from him without producing syncope.

Now, when inflammation is very severe, it is exceedingly difficult at times to produce fainting: there does not appear to be the least disposition to faint; and you may, in these cases, produce great prostration without causing syncope. This man became very much exhausted; there was scarcely any perceptible action of the heart, consequently no more blood was taken from the arm, but twenty leeches were now applied to the chest. After this his breathing became relieved, and his pulse was weak and feeble. All the blood that was taken was exceedingly sizy and cupped, and amounted to seventy-six ounces, nearly the whole of which was taken from him in twenty-four hours. On the 24th he still appeared in great agony, though his breathing seemed a little easier than yesterday; the crepitous rattle was still heard; and he had not taken a pill since three o'clock on the 23d. These symptoms continuing, a blister was applied to the chest in the evening, but it did not produce any effect. This frequently occurs in very violent inflammation, and the more violent the affection, the greater must be the strength of the remedial agent had recourse to, to affect the system. The same with counter-irritation: when any organ is in an active inflammatory state, the irritant, to cause external irritation, must be of a greater strength than if ordinary inflammation was going on. On the 25th, the next day after, being in great agony during the night, the symptoms appeared, if any thing, more violent than they had hitherto been, and at the time I saw him his sufferings were very great; he appeared too weak to lose any more blood from the arm; I had, therefore, twelve leeches applied to his side, and desired him to take the pills; in fact, I even went so far as to threaten to turn him out, if he did not, in the state he was in; for now I depended entirely upon the mercury for his recovery, and ordered him to take five grains of calomel every second hour. That I would leave nothing undone, had twelve minims of the croton oil rubbed upon his side every half hour until an eruption was produced. The same thing, however, occurred as in the blister; no pustules were produced by the croton oil, though it had been rubbed nine times on the affected side; and when there is not such violent inflammation, two applications generally produce quite sufficient of the eruption; though certainly it may be said, if it was rubbed at longer intervals it might have been produced by less; but I had it repeated in this way so that the irritation might be produced as speedy as possible. It was then on Friday that the calomel was given, and at the same time the croton oil was applied. By four o'clock on Saturday, the oil had been rubbed twelve times without producing any effect; and though he had taken the pills regularly, his mouth was not sore or even tender, and at this hour the symptoms remained much the same, of course he being in a very dangerous state. At eight o'clock in the evening his mouth became sore, and then, even in the same hour, all the inflammatory symptoms subsided. No crepitous rattle could be heard; his pulse was small and feeble, and his tongue moist.

This case was exceedingly interesting, and proved the powerful effect of mercury in subduing inflammation. When calomel is com-

bined with bleeding in active inflammations, generally, the latter is thought to be the effectual remedy; but I do not draw my conclusions from such cases as these, but from those only like the one under consideration; and I think it but fair to draw conclusions from such cases only. Certainly, I must say, those that get well under the combined treatment of bleeding and mercury, the success I think is to be attributed chiefly to the latter remedy. Of course, as soon as this man's mouth became sore, the mercury was omitted. The calomel, here, did not cause any affection of the bowels: they were regular, that is to say, open twice in the twenty-four hours. His anxiety of countenance left him; this, however, was caused from the excessive and long-continued pain: it went away as soon as that symptom subsided. After the croton oil had been applied fifteen times, the irritation was produced, but, before this, his mouth had become affected; for it was eight o'clock on the evening of the 26th that his mouth became sore, and not until the 29th that the eruption was produced. And now, to the eye of those who do not use the stethescope, he appears comparatively well, but, upon listening with this instrument, ægophony is heard, proving that effusion is present. But this is of no consequence, for the inflammation being subdued, it will of course soon be absorbed again. The eruption which was produced by the croton oil is now dying away; and this irritation, I think, may be attributed as much to the constant friction as to the oil itself. Now, if this man had not taken mercury, he either would have died of the disease, or the affection would have ended in the chronic stage. The active inflammatory stage might have been subdued, still a degree of inflammation would exist; effusion, most probably, to a great extent, would take place, and entirely destroy his health, and perhaps his figure. At the present time I know a gentleman who is in this state, and whose affection began in a similar way, from cold; for this man, you recollect, ascribed his complaint to his getting very wet and being out at night; and I think very properly so, for it was quite sufficient to cause this affection. Well, this gentleman went out one day and got very hot: he afterwards felt very chilly, and had slight stitch come on in his left side, which was soon followed by a severe attack of pleurisy. He was bled, still the pain continued very severe, and knowing himself the beneficial effects of calomel in all inflammations, very properly called out for it; but his medical attendant did not think it proper he should take it, therefore would not gratify his wish, and the inflammation did not subside; consequently effusion took place. The fluid was not absorbed, and the inflammation continued to go on; the pain was not now of that sharp stabbing nature, but he felt a continual dull pain, and, on percussion and auscultation, the ordinary sounds of effusion were heard, and he himself is perfectly satisfied that fluid exists in the chest; and, in consequence of the large quantity of effusion, the lung became compressed, and kept in that state for such a length of time, that now the fluid is being absorbed, the lung is not capable of expansion, but become completely solidified, and a deformity of the affected side is the consequence. I have no doubt if mercury had been given at first it would have prevented the occurrence of these symptoms; but, instead of this, they bled him, and administered digitalis, which could not have done much in such a case as this. I do not know of any case that proved the effect of mercury so well as the one I am speaking about. He was bled certainly to a very great extent, though not more than necessary, for they could not get him to take the pills, but more than I generally like to take from any one; nevertheless, though so large a quantity had been taken, the inflammation remained unsubdued, the symptoms returning as violent as before; and I then depended solely upon the mercury, with the exception, I should say, of twelve leeches which were applied to the chest. Much benefit, however, could not be expected from them; and, as soon as the mercury affected his mouth, these violent inflammatory symptoms left him. The remedy, however, has been used many years ago in practice, and a very excellent paper written on the subject, and which ought to be perused by every medical man; every thing is said upon it that is necessary, and as much as I can tell you. I will therefore read it to you. It is a paper written by Dr. Hamilton, in the ninth volume of the Medical Commentaries, as long as seventy years ago. In a letter from Dr. Robert Hamilton, physician at Lynn Regis, to Dr. Duncan, giving an account of a successful method of treating inflammatory diseases by mercury and opium. He commences—"I have taken the liberty to send you the following summary account of a successful method of treating inflammatory diseases with mercury and opium, which has been practised here almost eighteen years, and, I believe, is scarcely known any where else in the kingdom; and therefore I flatter myself you will think it may, with propriety, be inserted in your valuable commentaries, that it may be communicated to the world.

"In July, 1773, I gave some information of it to my excellent friend Dr. John Gardiner, the present worthy president of the college. And in the year 1776, I gave a short account of it to my amiable and learned friend, the late Sir John Pringle; and expressed a wish at the same time, that this method of treating distempers of the inflammatory kind might have a candid trial in the public hospitals. But, although this met with the countenance of this great man in private, so little was it consonant to common practice, and so difficult is it to overcome prejudices, that I apprehend it never was tried, as no young gentleman that I have met with, who had attended the hospitals in London since that period, ever

saw mercury and opium administered in those diseases, in any one of them.

"The following circumstance first led me to this method of treating inflammatory distempers:—

"At the close of the year 1764, the fleet which returned from the East Indies, brought a worthy surgeon of the navy to England, who had served in that country eight years. By this gentleman I was informed, that the established method of curing hepatitis, or endemial inflammation of the liver, incident more particularly to Europeans than the natives in that country, was by mercury; that mercury was, in general, esteemed a specific in that disease; that the method was, after the patient had lost some blood, and taken some gentle purgative, to have a strong mercurial ointment rubbed in on the region of the liver, and to give either calomel, mercurius alkalisatus, or the mercurial pill, until the salivary glands were affected by the mercury, or the inflammation removed; that the sooner a gentle spitting was raised by these means, the sooner the patient got well; that this method of cure was generally successful, if employed early in the distemper, but if it was neglected, the liver, which was commonly so turgid as to be perceived externally to be enlarged, soon suppurated; that he had a number of patients with suppurations in the liver, from this disease, under his care, and had opened many of those abscesses. Some of his patients thus treated had recovered, but more became tabid, and sunk under the profuse discharge.

"The respectable authority of a man of probity and professional ability, who had a large share in assisting to superintend and conduct the naval hospital on the coast of Coromandel, and consequently had had an ample field for information, deserved particular attention, as there was reason to believe, that this practice might be adopted with advantage in many places in England, and particularly in this country, as the environs of Lynn are very low, and surrounded with fens and marshes of many miles in extent, which are liable to inundations, are mostly under water in winter, and thus far resemble many places in India, where the hepatitis is endemial. Our diseases are nearly the same, with those of similar situations in India, particularly the bilious autumnal remittent and intermittent fevers, an allowance being made for their difference in violence and malignity, from the greater exaltation of the subtile poison, miasmata, by the intense heat of the climate in India. We have sometimes a most dangerous hepatitis. Some patients in that disorder falling under my care, soon after my friend's arrival from India, I gave the method of cure with a mercurial, and found it successful. I used the ointment in very few instances, and gave no preparation internally but calomel, to which I soon, however, found it necessary to add opium, in order to relieve that distressing concomitant of inflammation, the pain, which happily answered that purpose most effectually." Then he goes on "this success led me into the following train of reasoning: the efficacy of mercury in ophthalmia had long been established; its specific virtues, in every symptomatic venereal inflammation, had been long known; its liberal use in inoculation, in the modern way, had borne testimony of its power in abating inflammation; and the success in treating the hepatitis in India, with the late instances of the same kind which had passed under my eye in this country, were fresh proofs of its excellence: I considered that the general cause (be what it may) of an inflammatory diathesis must be the same, whether the inflammation is seated in the meninges, pleura, lungs, liver, diaphragm, or any other internal membranous part; and therefore, the circumstance of locality could make little or no alteration in the general intention of cure. From these premises, the following deduction naturally arose.

"As mercury had proved so successful an agent in removing inflammation in the several instances above mentioned, it was reasonable, from analogy, to conclude, that it would prove equally so in every kind of inflammatory disease. Wherefore I was determined to give it a fair trial in every one as opportunities offered for the purpose, and flattered myself from the data before me, that my experiments would be attended with success.

"The peripneumony was the first disease that fell under my care after this resolution was taken. The success attending the administration of calomel and opium here filled me with astonishment. I was successful in a great number of cases, and under a variety of circumstances. I have had the satisfaction to see women, far advanced in pregnancy, in a manner rescued from death in the last stage of the peripneumony, by calomel and opium, after every other means, which had been tried, had failed in relieving the patients. I had the pleasure afterwards of seeing them go the full time, be safely delivered of living children, and enjoy the happiness of bearing several others since that period. I have known many a life saved in the symptomatic variolous and morbillous peripneumony by these medicines; and I never saw any remedies afford so certain and speedy relief, in obstinate dry catarrhous coughs, as those, particularly when continued until the mouth became affected by the mercury. The same means have proved equally efficacious in pleurisies. But the most extraordinary and early relief I ever saw calomel and opium give, was in the phrenitis and paraphrenitis, which has been repeatedly experienced in a great number of cases. Inflammations of the intestines, and other parts within the abdomen, have most readily yielded to this treatment. I have, in the 66th volume of the Philosophical Transactions, in the account of a puncture made into the bladder through the anus, for a cure for a suppression

of urine, mentioned the use of calomel and opium in that disorder. I have known the greatest benefit arise from these medicines in child-bed fevers, with highly inflammatory symptoms. In the inflammatory angina, calomel, mixed with thebaic tincture and honey, laid upon the root of the tongue, and swallowed gradually, has frequently given great relief.

"Having succeeded, in the most unequivocal manner, in curing local inflammatory diseases by this practice, my experiments were next directed to that formidable malady of general inflammation, the acute rheumatism, and I had the satisfaction to see this also give way most readily to it.

"I have many times experienced the most happy relief from excruciating pain in the highly inflammatory gout; and some of my friends, as well as myself, have repeatedly experienced the most salutary effects from this practice, in this distressing disease, for several years, in our own persons.

"We have also found equal benefit from the use of those medicines, in inflammations arising from external injury, either in head, thorax, or abdomen, as we experienced in those arising from an internal cause.

"Having named the distempers in which our first experiments proved successful, it is now requisite to give a detail of our general mode of practice in this town and neighbourhood, ever since that period, in all inflammatory distempers, arising either from an internal or an external cause, which is as follows:—Blood was directed to be taken away in the beginning of the disease, in quantity proportioned to the violence of the inflammatory symptoms, and the age and constitution of the patient; and the bowels were next ordered to be emptied, either by clyster or (more commonly) by an eccoprotic purgative; after which, a composition, consisting of from one to five grains of calomel, and from one to four grains of opium (with any conserve in a bolus), in proportion to the strength and age of the patient, was administered every six, eight, or twelve hours, as the degree of inflammation, or the threatening aspect of the distemper, seemed to require; and a plentiful dilution, with barley water, or any other weak tepid beverage, was at the same time strictly enjoined.

"After taking three or four doses of this medicine in the course of twenty-four hours, the patient was generally greatly relieved; and in twenty-four hours more, the distemper commonly gave way, and soon terminated. But if not relieved in the first twenty-four, and the high inflammatory symptoms continued, with little or no abatement (which was rarely the case), more blood was taken away, and this mercurial composition was directed to be more frequently given, and continued until the distemper resolved, either by sweating, purging, or more commonly both, or by a ptyalism being raised. I have observed a great variety in the effects of mercury thus administered. When the patient sweated or purged much, the salivary glands did not become soon affected; but when the evacuations by the intestines and skin were not copious, the spitting was the sooner excited; and I have seen large quantities of mercury given, for a continuance, without affecting the mouth in the least, or producing any very large visible evacuation, yet the patient was greatly relieved. A little increase of urine, indeed, was all that was sometimes to be seen; and we may conjecture, that the insensible perspiration might sometimes be increased also. But be that as it may; if this method of cure was employed early in the disease, the patient's recovery was soon accomplished, whatever was the operation of the mercury; but if employed late, it was attended with more uncertainty, the case was rendered more doubtful, and the recovery was more slow; but most commonly the soonest when the salivary glands were affected.

"If the fever was violent, accompanied with a dry, contracted, arid skin, emetic tartar, and sometimes camphor, were added. And I beg leave here to observe, that I never found any medicine, either in a simple or aggregate state, produce so certainly, speedily, and effectually a relaxation of the skin, and a plentiful discharge from its pores, as a composition of calomel, opium, emetic tartar, and camphor, which has also the advantage of increasing the evacuations by stool and urine; from which it would appear, that the glandular secretions, in general, are most essentially promoted by this composition.

"When I have been consulted in an advanced period of any inflammatory disease, I have frequently found it necessary to direct blisters, as powerful auxiliaries to this internal method of cure, to be applied to the side, sternum, hepatic region, extremities, &c. &c. as the nature and seat of the distempers, or urgency of the case, seemed to require; but very seldom to the head, because, from repeated experience, I have long found, that the inflammation of the skin, and subsequent discharge from blisters on the lower extremities, have, in many inflammatory diseases (particularly in the phrenitis and paraphrenitis), afforded much greater relief than when they had been applied to the head; but, when calomel and opium had been employed early in the disease, it was very rarely, and in very bad cases indeed, that blisters were found to be requisite.

"After the inflammation began to resolve, and the distemper appeared to be on the decline, the Peruvian bark, in decoction or powder, was directed to be taken, with great advantage, and a suitable portion of wine was ordered to be added to a proper diet, in order to recruit the debilitated system. It is almost needless to add, that the bowels were kept soluble during the cure, by some gentle purgatives, if that purpose was not sufficiently answered by the mercurial medicine; or to observe that acids were avoided, for obvious reasons.

"It has been alleged by some, who had heard of this method of treating inflammatory diseases, that as other powerful medicines had been frequently joined to the calomel, the cure might, with greater probability, have depended upon them than the mercury. I candidly acknowledge, that I have always thought the oipum of the most essential service, by relieving that most harassing symptom, pain; and must allow, that I have thought the emetic tartar and camphor have sometimes contributed towards a cure. But truth obliges me, at the same time, to observe, that we have very often seen cases wherein emetic tartar, camphor, and opium, had been for some days employed, with the assistance also of those remedies of the saline tribe, which are usually given in inflammatory disorders, without affording the smallest relief in the disease, which, although arrived at a considerable height, to the greater danger of the patient, has, on calomel being added, given way in a very short time. I must also add a well known fact here, that calomel and opium, from the first exhibition of mercury in inflammatory diseases, in this place, to the present time, succeeded in a very great number of cases, without any other addition. And moreover, that even, with the addition above named, many diseases of this kind have proved so obstinate, as not to discover any tendency to an amendment, until the salivary glands were affected, when the distemper gradually gave way as the spitting advanced, and afforded a most decisive proof, that the cure was effected by mercury. We generally, therefore, look upon it as a happy presage of the patient's recovery, when the salivary glands become affected by this noble medicine.

"The East India method of treating inflammations of the liver has long been communicated to the world. I presume you are not unacquainted with the account of it, published in the Medical Museum in 1764, the year my friend returned to England. Dr. Lind's relation of it, in his account of diseases incident to Europeans in hot climates, and the result of that excellent physician's experiments with mercury, on some patients who had returns of the hepatitis in England, which are therein recited, must have been long known to you. I may also rest assured, that you must have remarked what Dr. Clark has said of it, in his account of East India distempers, and must have seen the account of his success in curing an hepatitis with mercury at Newcastle. And a man of your reading and observation must have remarked, that neither of those writers, or any other that I know of, have dropped the least hint of ever attempting to give mercury in any other inflammatory disease, in either of the three cavities of the body.

"Having finished this summary account, I have only to add, that the subject of it is not the hasty result of a few months practice, but that it is founded on the solid basis of (I must again repeat) nearly eighteen years' successful experience, to which many of the principa practitioners of this town and neighbourhood can bear the most ample testimony."

Then the use of mercury, in acute inflammations, has been spoken of many years ago, by Dr. Hamilton; and this paper, which I have read to you, was published upwards of forty years ago, and contains as much information upon the subject as I know or can tell you now. And it is very amusing to see in books, which we frequently do, the good effects of mercury spoken of in this or that particular inflammation. Lately it has been said to be a very useful remedy in pericarditis; so unquestionably it is, though it is quite absurd to think it more beneficial in this than in any other inflammation; for, in truth, in all kinds of inflammation, it is an exceedingly valuable remedy. This paper was published in the Medical Commentaries, as long ago as the year 1783-4; but still there are some practitioners, even at the present day, who only employ it in particular inflammations. In employing this remedy, all you must do is to affect the system; give it until the gums are tender, and your object is effected. Certainly sometimes you cannot help it, for some individuals are much more predisposed to this poison than others. Dr. Hamilton, by sound reasoning, thought if mercury was a specific for inflammation of the liver and of ophthalmia, it would be of service in other inflammations, but did not rest satisfied with this until he had tried the experiment, which verified his former opinion; and by reasoning only are improvements made in this as well as in every other science. And it was by true reasoning that I discovered the effect of hydrocyanic acid in checking vomiting, though, in the first instance, I discovered its use in a singular way in a case of gastrodynia. There were two women, each named Ann Lee, came at the time I was seeing the out-patients at this hospital, both at the same time, one for an affection of the chest, the other for violent spasms and flatulence of the stomach. Three minims of the hydrocyanic acid, three times a day, I prescribed for the former, and, from the identity of the name, her prescription was given in mistake to the latter, at the apothecary's shop. The next time I saw the latter Ann Lee, she was perfectly well; she had, however, been subject to the complaint many years, and two months afterwards it returned; and I thought this a favourable opportunity of ascertaining whether her recovery had been effected by this medicine given in mistake; I therefore prescribed it, and she soon recovered as before. Now, Dr. Thompson has said I took this remedy at first from him; but the fact was, as I have just now stated, and there is not the slightest proof or reason to believe that he used this remedy in dyspepsia on scientific or inductive principles, nor even that he used it intentionally, but discovered it by the following accident:—There was an epidemic catarrh prevailing at Chelsea, and Dr. Thompson, having heard

of Magendie's account of the effects of the acid in pectoral complaints, exhibited it in twenty cases; among these was a gouty gentleman, who had been afflicted with dyspepsia, had a red tongue, supposed to arise from acidity of his stomach. By ordinary remedies and regimen his digestive organs had improved, and he had become as well as an ordinary individual, beyond the middle age, could expect to be, ceased to take medicine. But he was attacked, like his neighbours, with the epidemic catarrh, and for it, to whom as well as to his neighbours, Dr. Thompson prescribed prussic acid. The cough abated, and in four days was gone; and with the cough, in four days, subsided the heat of the tongue, so there was no appearance of intentional treatment of the heat of the tongue by the acid in this case, for no derangement of the stomach existed when the acid was exhibited. Now, I never arrogated the merit of discovery, but honestly said, that I discovered the virtues of the acid in stomach affections, by seeing a woman cured of gastrodynia, not by any direction of mine, but by prussic acid ordered for another with pectoral disease, and served to her by mistake. This fact I imitated, and by patiently following it up, was enabled to present the profession a body of facts illustrative of the powers of the remedy in various disorders of the stomach; whereas not one had been given by Dr. Thompson, and to point out in what particular cases it would be found beneficial, and in what useless If I have any merit, it is merely that of following up a fact which occurred, not by scientific induction, but, as I have mentioned, quite independently of me. And whether it is more probable, that I followed up a case, which occurred under my own eyes, and was a manifest derangement of the stomach, or one which occurred to another, and was without disturbance of this organ, I shall leave you to judge. The truth is as I asserted: and whether I followed up a fact that occurred at this hospital independently of myself, or a fact that occurred to Dr. Thompson independently of himself, the matter is exactly the same; this, however, is not the point upon reasoning on its effect. I was induced to give it in vomiting, and after some time, upon further reflection, thought it would prevent medicines we did not wish to produce vomiting, and found it succeed in preventing medicines, such as colchicum, arsenic, &c. &c., from causing sickness, given a little before or at the same time with the medicine, and this now has proved to be a very valuable medicine, but been given for many years by a German physician in dyspeptic complaints, so of course this person has the priority of using it. Well, then, this paper of Dr. Hamilton is a very valuable one, and ought to be possessed by every medical man, for it contains all the information that is known of the specific effects of mercury in inflammation at the present time.

DEFENCE OF MEDICAL PUPILS.—CHARGE AGAINST DRUGGISTS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—Having several times perused articles contained in your truly valuable Journal written by a correspondent who styles himself a "chemist," but most probably from his minute knowledge of scientific chemistry, he would better express his calling by the term druggist, and who indulges himself too freely in venting insinuations against the junior class of our profession; therefore I trust it will not be judged unbecoming in me, as one of that body, to offer a few observations in reply.

Unfortunately for my future welfare, prior to my being articled to a general practitioner, I unprofitably devoted an apprenticeship of three years to a druggist; during which time I obtained no other acquisition than an incorrect pronunciation of pharmaceutical preparations and the art of adulterating medicines. The writer in a former address inquires "if you seriously imagine that prescriptions are not better and more accurately prepared by a chemist who has attained the years of discretion, than by a giddy unthinking apprentice in the surgery of a general practitioner?"

In answer to this "unthinking" affirmation, I would ask if prescriptions can be *better* compounded by a set of tradesmen, whose whole consideration is pecuniary interest, and whose tinctures and other preparations do not contain the proportions directed by any pharmacopœia, and therefore are deprived of their essential qualities in consequence of the most useful ingredients being withdrawn to enlarge their profits; or by preparing them with adulterated drugs, when, perhaps, the patient's life depends upon their virtues?

What retail druggist can deny that his E. I. powder of rhubarb is not adulterated with English, or that his

jalap powder does not contain a considerable proportion of linseed meal? These lamentable facts, to my certain knowledge, are too general to be denied; and I am surprised that a druggist, whose conscience must "tent him to the quick," can argue his superiority over the medical pupil who receives a classical education, is in the daily habit of seeing the action and studying the chemical properties of the medicines he prepares, and is provided with the best drugs that can be procured for his use. I have now given a brief statement of the abuses practised almost individually by druggists, and trust they will be sufficient to counterbalance the unjust attack which has been made upon the pupil's character; and before I quit this subject, I beg your correspondent in future will vent his spleen on objects more deserving his reproach than unblamable surgical students.

Hoping this will not occupy too much space in your impartial Journal, and depending on your liberality for its insertion,

I remain, gentlemen, your
obliged and humble servant,

W. A. N. C.

EXAMINATIONS AT APOTHECARIES' HALL.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN, — Having passed through my examination at Apothecaries' Hall, I can have no other object in making the following remarks than the good of those pupils who follow me.

The complaint I have to make of my examination is, I regret to say, the *ungentlemanly* treatment of some two or three well-known examiners, and perhaps a too exclusive attention to minute points rather than to practical and useful. I feel well aware that a man may go up well prepared for this very important ordeal, and yet if he chance to displease one of these much feared gentlemen, his knowledge and study shall all go for nothing. I would here allude more particularly to nervous persons, to whom no sort of allowance is made for this defect of nature.

I considered that I was well prepared for my examination, and fortunately got under a man most gentlemanly and kind in his manner, and fair in the questions he put to me.

During the examination, ever and anon one or other of the persons above alluded to (so well-known that I need not mention names), made their appearance, and put several questions to me, which I thought I answered with sufficient minuteness; but not being according to their ideas, they were pleased to reprimand me in an illiberal and gross manner; so much so, that had I not been endowed with strong nerve and confidence, I think I must certainly have been rejected. In the hopes, sir, that this may serve as a hint to those who should be able to combine justice with power, and so benefit my juniors,

I remain, gentlemen, yours,
A LICENTIATE OF 1833.

A CASE OF TWO INFANTS UNITED, LIKE THE SIAMESE TWINS.

A SINGULAR example of monstrosity is now in London, at Falcon-square, and has been seen by Sir A. Cooper, with many other distinguished members of the profession. It will be shortly exhibited to public view. This monster was born lately at Exeter, and presents two bodies united by the abdomen. As in all such cases, the sex is the same in both. It is feminine in this example. It is singular to observe how peculiar are the laws of nature even in her vagaries. Were we disposed to enlarge upon this *lusus naturæ*, we might allude to several cases of a similar description, and in all the sex is identical in both infants. To the physiologist and obstetrician, such unnatural productions afford a large field for speculation.

THE

London Medical & Surgical Journal.

Saturday, February 23, 1833.

MEDICAL REFORM.

It is with much regret we have heard, from a quarter on which we have every reason to place the greatest reliance, that notwithstanding all that has been said, the subject of reform has not yet been brought before the Royal College of Physicians. Deeply do we deplore this infatuation and obstinacy, for if it be not granted with a good grace, the redress of grievances will be obtained in a manner that cannot reflect any credit upon its opposers, and must draw down the public animadversion and indignation upon them.

That some of the most distinguished Licentiates are determined to assert their rights, we most positively and unhesitatingly declare, and that they have already enlisted on their side some of the most influential and independent members of the legislature, and that they will pursue, by every honourable and just means in their power, this great object; still they are anxious to show every respect to the President and Fellows, and to await their determination. But this state of uncertainty will not be long allowed to exist; they are neither on the one hand to be seduced by flattering promises, or insidious pretences, to postpone their views, nor are they to be driven from their honest purpose, or baffled by bold assertions and calumnious detractions.

A meeting of the Licentiates will very shortly be held, at which the preliminary steps will be taken, for an appeal to Parliament, and at which will be drawn up such resolutions as may be necessary to form the petitioners into an united body, capable of combating, on just and honourable grounds, their adversaries. It yet remains for the College to yield in time, and to commence a reform which will be hailed with general approbation, and will entitle its promoters to the respect and esteem of the profession and public.

We have received several communications from our correspondents, who, in general, seem pleased with the plan of reform which we proposed in our last Number. Such of the present Licentiates as may choose it will become Fellows, but, in future, no degree will be considered as entitling an individual to be a member of the London College, without that degree has been granted by the London College of Physicians. No degree, granted either by Cambridge, or by Edinburgh, or by London, would be entitled to any more respect than the testimonials of education would be from any of these schools. So that an individual would not be called on to pass through two examinations. The Royal College would point out such a curriculum of education as they consider necessary for students; and, upon their passing through it, and presenting themselves for examination, they would be received as candidates. Ten years at least should be passed in the study of the science, five of which should be at some

recognised university, at which the medical sciences are taught, and the other five at the hospitals and great establishments of some large city, where every facility of practical knowledge is afforded. The education cannot be made too diffuse, it should embrace the circle of the sciences, it should be such as to elevate the physician in the scale of the scientific world, and to place him in such situations as with moderate industry and talent he might be enabled to acquire solid and useful knowledge. Not only should every physician in London, but throughout the country, pass this College; for assuredly the lives of his Majesty's liege subjects are quite as valuable in the country as those in London. This plan has been maturely considered, and we are persuaded it would give very general satisfaction.

ST. GEORGE'S HOSPITAL.

We have as yet heard of only two candidates for the office of Physician to St. George's Hospital—Dr. Macleod and Dr. Hope, both of whom have great claims upon the respect of the profession. Dr. Macleod is known as the Editor of the "Medical Gazette,"—at least he acknowledged, during the last session of the Westminster Medical Society, at one of its meetings, his connexion with that Journal. With many of his opinions we are totally at variance; and sometimes they may not have been expressed with all the courtesy which was to be expected from one physician to another; but no doubt can exist as to his competency to undertake the duties of the important office which he is anxious to obtain. Dr. Hope has still more honourably distinguished himself, and will doubtless maintain the high reputation he has acquired: he is, however, already an officer of a large institution; but we suppose he is anxious for a still wider field for his useful and laborious investigation.

ROYAL MATERNITY CHARITY.

Dr. Dennison has resigned the office of Physician-Accoucheur to this charity. The candidates for the appointment are Dr. Ryan, Dr. Borrett, who are members of the Royal College of Physicians; and Dr. Thomas L. Blundell. Of course it would be a matter of great delicacy in us to make any comments on the respective claims of these gentlemen, but we need scarcely observe, how gratified we should be by the kind assistance of the numerous readers of this Journal in favour of its Editor.

We trust that the profession will promote the interest of the best qualified candidate, and secure to the charity the services of him who possesses the most scientific and practical information. We hope the time has nearly arrived when the election of medical officers to our public charities will be conducted upon principle, and not upon private interest, and that the best qualified will be preferred.

MEDICAL AUTOGRAPHS.

There was a singularly interesting sale of autographs and manuscripts this week at Evans's; it contained

many curious documents. Many of them were sold at very high prices; a letter, however, from our celebrated Linacre to Macchiavelli, in Latin, sold only for eleven shillings; a lot, containing a letter from Vesalius, the eminent surgeon, to the Prince of Orange, one from Boerhaave, and another from Haller, in English, brought fourteen shillings; a lot containing letters from Cuvier, Secard, Astruc, went for twelve shillings; a letter from Linnæus, in Latin, on subjects of Natural History, with one of Reaumur, met with a purchaser at one pound nineteen shillings. There were many valuable letters from eminent literary and scientific characters—from Copernicus, Des Cartes, Sir Isaac Newton, Leibnitz, Franklin, Sir H. Sloane, Lavater, Fourcroy, Lavoisier, &c., which were eagerly bought by the collectors of these curiosities. Amongst whom were some of our most distinguished and learned men, who on many occasions vied with great enthusiasm with one another in the possession of some well authenticated specimen of an illustrious character. It was not merely the hand-writing of the individual, that gave interest to many of these documents, but the subjects which they treated of, and which in some instances were of peculiar importance and deep interest.

Reports of Societies.

ROYAL SOCIETY.

Thursday, Feb. 14th, 1833.

The Rev. William Buckland, D.D. Vice-president, in the Chair.—A curious and interesting paper was read, which was communicated by Leonard Horner, Esq., F.R.S., "on the existence of four distinct hearts, having regular pulsations, in certain amphibious animals," by Professor Muller, M.D., of the University of Bonn. This paper excited great interest, and its perusal was listened to with profound attention.

ZOOLOGICAL SOCIETY.

Feb. 12th, 1833.

Several interesting communications were read, from various distinguished individuals, among whom was the justly celebrated Geoffroy St. Hilaire. As all the communications related to natural history, and as our chief object is to submit medical information, we decline noticing them.

MEDICAL SOCIETY OF LONDON.

Monday, Feb. 11th, 1833.

Dr. Burne, President, in the Chair.

Contagiousness of small-pox disputed.

Mr. Gossett related a case of small-pox in his own family, which he could not trace to contagion.

Mr. Headland mentioned an instance of small-pox in a village in Hampshire, where there was no case for six months previously, in a circuit of twenty miles.

Mr. Linnicar considered the disease to depend upon epidemic influence, as it often arose spontaneously. He had known the disease occur at the end of five weeks after exposure to it.

Dr. Burne remarked, that the poison of marsh miasmata often remained latent for weeks or months, and, so soon as the patient was subjected to any debilitating cause, he became affected with ague.

Mr. Dendy was surprised at the opinions of preceding speakers, as to the non-contagiousness of variola. He could not assent to the conclusion, that the disease was not contagious, because infection could not be traced. He did not think, that any of the cases adduced occurred *de novo*. It was difficult to trace contagion in a large community, from the migration of beggars, who were the common channels of the disease.

Dr. Shearman observed, that small-pox had an origin, and, therefore, he would ask, why not the same original cause reproduce it in different places at the same time?

Mr. Kingdon fully agreed with his friend, Dr. Shearman, and believed that the disease might occur *de novo*. He considered that the influence of the mind might produce a variety of diseases, as fevers, and perhaps the malady under notice, an opinion already offered by a former speaker.

Mr. Proctor thought that no real disease could be produced by the imagination.

Mr. Field instanced the case of Dr. Curry, to show that, though he, an eminent physician, supposed himself labouring under disease of the liver for years, and took large quantities of mercury, the liver was healthy after death.

Dr. Whiting considered that the mind had great influence on the body, and caused various diseases. He considered small-pox a contagious disease, and did not think it probable that it originates itself.

Feb. 18*th*, 1833.

DR. BURNE, President, in the Chair.

Fungus Hæmatodes—Cancer.

A communication was read on a case of fungus hæmatodes of the brain, and two drawings of the disease exhibited to the society.

Mr. Kingdon remarked, that when fungus was induced by external injury, he should at once remove it by excision; but when it was idiopathic he had great hesitation, as the disease very rapidly returned, either in the cicatrix or in some other part. He mentioned several cases which had fallen under his own observation, and terminated as he stated.

Mr. Callaway coincided with the opinion of Mr. Kingdon, and related a remarkable case in illustration of its correctness. A lady had a small fungus near the ankle, and this was removed by one of the first surgeons in this metropolis. In a short time the disease returned in the cicatrix, a consultation was held, and it was determined to remove the limb below the knee. The operation was performed, and the stump healed kindly. In a short time the disease re-appeared in the cicatrix, and, as the lady was a person of strong mind, she was ready to submit to any operation that might be proposed. It was determined to amputate above the knee: the operation was performed, the stump healed kindly, but, after some time, the glands of the groin became affected, fungus appeared, sloughing set in, and extended to the femoral artery, and the lady died of hæmorrhage. From the result of his experience in fungus and true scirrhus, or carcinoma, he really believed that these diseases almost invariably returned; and, therefore, he was almost inclined to think excision a very dubious proceeding. It was the duty of the surgeon to perform the operation; but still the feeling on his mind, that a relapse would recur, must make him deplore the imperfection of his art. The same observation applied to malignant scirrhus. He removed almost every part which could be affected with that disease, but it invariably returned.

Dr. Burne stated, that Mr. Hodgson, of Birmingham, had mentioned to him, three years ago, that he had kept notes of all the cases of cancer for which he operated, and that they invariably returned. He was, therefore, almost disposed to decline operating in future.

Mr. Dendy related a case of a lady, whose breast he removed, and the scirrhus did not return in the cicatrix; but, in a year and a half, the axillary glands enlarged, and in six months afterwards she died of the disease. He agreed with those who considered that isolated fungus, or scirrhus, ought to be removed, though, in general, these diseases speedily return after operation.

Mr. Stephens related a case of fungus on the hand, which he removed some years ago, but there was no return of the disease. He thought that English surgeons were too fond of union by the first intention. It appeared to him, that setting up a drain, or a degree of counter-irritation, after

operations for malignant diseases, was extremely desirable.

Mr. Salmon related a case of cancer of the anus, which was removed by an hospital surgeon of great experience, who declared that he had removed fifty-two cancers, and all had returned except two. Mr. S. also related a case, which was in the Bath Hospital, exactly similar to that described by Mr. Callaway, for which amputation was repeatedly performed in vain; the groin became affected, and the patient died from sloughing of the femoral artery. His own experience fully corroborated the views laid before the society this evening.

Dr. Whiting observed, that, as surgery had completely failed to afford relief in the diseases under consideration, we should once more resort to medicine. He thought that, after an operation for malignant diseases, some plan of treatment should be adopted to affect the system, such as the employment of mercury.

Mr. Proctor remarked, that his revered preceptor, Mr. Abernethy, entertained the same notions as mentioned this evening. He declined to operate, and exhibited mercury, sarsaparilla, &c., but without any satisfactory result.

The Society then adjourned.

WESTMINSTER MEDICAL SOCIETY.

Saturday, Feb. 16, 1833.

Mr. Pettigrew in the chair.—The Society has for some meetings past exhibited very little sign of animation: dull discussions and long silence seeming to be the order of the evening. The introduction of such a subject as phrenology, and the class of visitors who attended when it was brought forward, were quite sufficient to keep away those who go for practical information. On Saturday, there were more signs of vitality. Mr. Scott narrated his own case, in which a peculiar state of cerebral affection, to which the name of quininism was given, was brought on by the inordinate use of the sulphate of quinine. Dr. James Johnson made some observations on the case. Infantile remittent fever, which had been the subject of consideration on a previous night, was resumed, and a discussion ensued of no great importance, in which Messrs. Hunt, Chinnock, and King took the lead. Dr. Granville brings forward a paper next Saturday on some points connected with midwifery.

DEFENCE OF GENERAL PRACTITIONERS.

To the Editors of the London Medical and Surgical Journal.

Gentlemen,—Upon perusing the Leader of your valuable Journal of the 9th inst., it appeared to me somewhat deficient in that good sense and fair reasoning which characterise the generality of your editorial productions. It begins by stating, that the members of the Apothecaries' Company, owing to the supineness of the Colleges of Physicians and Surgeons, "obtained powers which would not have been granted them had the Colleges offered serious opposition." That the Colleges could, in the plenitude of their ill-merited power, have offered such opposition as would have prevented the passing of the Apothecaries' Act, cannot be doubted; but what does their silence on that occasion testify, but their total disregard of the "powers that be," to the welfare of the medical community, so long as the Fellows of the one, or the Council of the other, can retain their unjust privileges to the exclusion of their more numerous and equally, if not more talented and respectable, brethren. After lamenting that the apothecary should minister to the medical wants of the greater portion of society, and that the physician and surgeon are unemployed, and deprived of their legal privileges, "whilst the apothecary is making a trade of the profession, and lowering its dignity in public estimation," the writer proposes

to remedy the evil by advising persons to consult a physician, and have his prescription prepared at those very "chemists or druggists" that have been of late so severely castigated for vending adulterated medicines, and accused of not possessing more classical knowledge than will enable them to decypher the finale of a prescription (*exempli gratiâ*, quart. part. 4ta quaq hor sumend.); and yet this is "in the end the *best* and most economical mode of obtaining medical aid." We are then told, that general practitioners will not be so much respected as those who alone uphold the dignity of the profession, because they sink the profession into a mere trade, by vending drugs, and thus identifying themselves with the uneducated druggists; and this is not intended as any offence to the general practitioner! If not, what else can it be? Certainly not a compliment. But it must be recollected, that at the present time a retail shop is almost the only means by which a deserving and enterprising individual can establish himself in practice, owing to the injury done him by the "counter practice" of the druggist.

But, at the same time that I advocate the cause of the general practitioner, I will not deny that there exists a most urgent necessity of the guardian angel of Reform extending her benign influence over all the medical corporations of the United Kingdom, and especially over those of England. It is, indeed, disgraceful to see a chartered medical band, who are, by the law of the land (such as it is), placed, as it were, at the head of one branch of the medical profession, degrading that profession by forming themselves into a trading company, and thus affording to the druggists, who cannot but feel themselves injured by such proceedings, a just ground of complaint, and almost obliging them, in self-defence, to retaliate upon the general practitioner. The course of study, too, required of students is, in many instances, unjust and oppressive; for surely it should be deemed sufficient for the aspirant in medicine to pass, with credit, a rigid practical examination, wherever or however the knowledge, by which that desirable object may be effected, has been acquired.

But, deplorable as is the present condition of our medical constitution, I should be grieved to see the return of those days when the pedantical physician was almost the sole medical adviser; when the terms barber and surgeon were synonymous; when the apothecary was a mere compounder of medicines; and the only shop where a drug could be purchased was the grocer's.

If you will notice this communication, or perchance, insert it, with whatever abridgments you may deem necessary, you will much oblige,

Your humble servant,

A. C. G.

[We insert the above letter, and must offer a few comments upon it. The writer takes a partial and unfair view of the Leader to which he alludes. He is silent upon all parts of it which would raise the general practitioner in public estimation, and in affluence; but he quotes as much of it as barely suits his purpose. In reply, we beg to state that he ought to be aware of the fact, that there are several gentlemen connected with this periodical, and therefore that Dr. Ryan is not personally, though legally, responsible for many of the articles in its contents. As the friend of all classes of the profession, Dr. Ryan inserts leading articles from all; and therefore the reader must make due allowance for any apparent difference of sentiment that may appear in the leading articles. Now, it happens that the article commented upon as unfriendly to general practitioners, was written by one of the most eminent of that body; and yet it is complained of. Tastes and sentiments differ. Dr. Ryan is not disposed to offer an opinion on the subject; and he wishes it to be distinctly understood, that he is not the writer of all the

leaders or reviews in this Journal, and therefore is not personally responsible for them.]

DEFENCE OF GENERAL PRACTITIONERS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—From the desponding tone assumed by your correspondent, H. L. J., in his epistle of last week, one would suppose it was the last speech and confession of that worthy fraternity, the Druggists, who, convicted of their nefarious practices, only seek to palliate your ire, and through the medium of H. L. J. send forth their last mournful cadence "fraught with croakings." But even while deprecating your just anger, they cannot refrain from venting their spleen; for H. L. J. at the tail of his sad and sorry production, whips in a sarcasm against some person, "*non est inventus,*" as a vender of quackery, totally forgetful of the old proverb—"Pluck the mote from thine own eye," &c. But H. L. J. has an apprentice, who has a knowledge of Greek. *Rara avis!* A knowledge of Greek! But, *O infelix puer!* that thou shouldst fall into the hands of such a compounder of sedative sentences as thy master. I must be heedful of offending thee, thou learned scion of drugs, lest I be overwhelmed with Greek and confusion.

Surely, most erudite H. L. J. thou must have been labouring under the influence of one of thine own dingy black draughts to produce such a concatenation of groans and complaints, or, perhaps, suffering purgatory under the lash of the Medical and Surgical Journal. The question you propose for an answer, apparently in exultation at its unanswerable qualifications, is similar to the reply made by a pickpocket, who, being reprimanded by the judge, and told to pursue a better, trade, answered—"None could be better, if they would let him pursue it in peace." But to the point:—when, some centuries since, the practice of medicine was elevated to a profession, and chartered bodies were first instituted by those who had gained the highest estimation, and which required proofs of having attained knowledge proportionate to the trust reposed in a physician, in order that the public might be protected from quacks and impostors,—*then* should have been the time to have lopped the useless branch which at present disgraces the profession, the adulterating and innovating retail druggists. But either from want of perception, or lack of nerve, they have been suffered to creep on unmolested in their path, until they have attained their present numbers, thereby vastly injuring the legitimate practitioners, and, like an overgrown parasite, vomiting forth its spawn of would-be surgeons and accoucheurs. So long as the retail chemist is allowed openly to set at defiance the laws of the nation, and usurp the rights of legal practitioners, so long will the acquirements of those who have undergone a scrutinizing investigation be depreciated in the eyes of the public.

But if those who are at present slumbering in indolence become deaf to the appeals of their brethren whom they have enrolled among their own number, and unmindful of the purpose for which their body was created—if they rouse themselves from the torpor—it is not yet too late; and by a vigorous effort confine the druggists within proper bounds, and suppress their innovations: they will then not only be doing their duty, but will gain the thanks of the thousands, who, excluded from the benefits for which they have toiled, are impoverished from the usurpation of their rights by the retail druggist. If, gentlemen, you should reject this, may the chemists receive their deserts from the pen of some more able advocate of medical reform than

AN APPRENTICE.

Reviews.

A Treatise on Indigestion by Dr. Wilson Philip, Seventh Edition. Renshaw and Rush.

It is acknowledged by the profession, that Dr. Wilson Philip is a scientific physician, that he is a diligent inquirer into the laws that regulate the animal economy, and that he is an unwearied observer of the phenomena of disease. He has for a long series of years devoted much industry and attention to the diseases of the digestive organs, and his opinions have received the sanction and confirmation of the most scientific men. The volume before us has gone through many editions, and at each time has received the tribute of approbation it deserves. It was, we believe, about the year 1821, that the first edition was brought before the professional public, and within a few months a second edition became necessary, and many alterations and improvements were added; since that period it has three or four times been republished, and we are again called upon to notice a new edition. This is very much improved, and the later experiments and observations of Dr. Wilson Philip have enabled him to come before us with more information and further illustrations of his views. Dr. Philip employs the term indigestion not merely as synonymous with dyspepsia, but he embraces a vast variety of diseases, which come under the vague denomination of bilious, nervous, and stomach complaints, which begin from simple and apparently unimportant deviations from health, but which gradually become so complicated as to undermine every power of the system, and lay the foundation for the most formidable diseases. That the stomach is the great centre of sympathy of the human frame, and that its derangements, whether functional or organic, must produce the most important effects upon health, is now generally understood, and that a knowledge of the state of the digestive organs, the changes in their secretions and excretions, is as necessary as an acquaintance with the state of the pulse, has been inculcated on the minds of medical men, and its truth is generally recognized: therefore, such inquiries as those which are prosecuted by Dr. Philip become highly important and useful. The connexion between the nervous system, or at least its sympathy, with the system of digestion, accounts for many of the diseases whose causes were formerly little understood. Dr. Wilson Philip has divided Indigestion into three stages; the first two being easily recognized, as of frequent occurrence; the third stage, however, is one in which such changes have taken place, that Indigestion may be said only to have been the exciting cause, which has produced the development of the disease to which the individual was predisposed. It is only here that we have the slightest cause of difference of opinion with this enlightened and excellent physician. It would, however, require a much more lengthened discussion than our limits permit us, to point out the reasons that induce us to take a different view. We are amongst those that cannot believe that tubercles of the lungs shall arise from Indigestion, without there having been the latent predisposition which only required some exciting cause to call it into action. That pulmonary phthisis, and habitual asthma, may be sequelæ of Indigestion, we acknowledge; but we cannot consent to rank them under the comprehensive general term of Indigestion.

Our author commences with the symptomatology of Indigestion, and the symptoms of the first and second stage are admirably described. It would be an injustice to him to attempt to condense the chapters which he has devoted to this part of the subject; but we must observe that he has well depicted the progress of the malady, and the changes of functions of organs throughout it. The pathology of the disease is his next point, and this is followed by his observa-

tions on the treatment he pursues. Each of these subjects demands considerable attention, and we are persuaded that no attempt at analysis of this book would be useful, because each portion abounds with deductions which cannot be fairly understood without a due and careful perusal of the whole. We shall, however, take another opportunity of directing further attention to this useful volume.

Remarks sudmitted to the Medical Profession, on the Necessity of Medical Reform. By MACHAON. Pp. 16.

WHEN a bold Guerilla chief assists in a glorious and honorable war, we never for a moment stop to examine whether he wears "the last regulation" sword, or whether his rifle is shining or bronzed; all that we expect from him is, that he will use whatever weapons may fall in his way with vigour, with boldness, and with enthusiasm. As Machaon comes forward in a glorious cause, and writes fearlessly and honestly, we will not point out inelegancies of style, inaccuracies of language, nor misapplication of quotation, but, thanking him for his straight-forward and determined opposition to a shameful and mischievous system, attribute every error we may find to the printer.

Machaon is a bold warrior, and flourishes a tomahawk with great dexterity; but he has been evidently somewhat accustomed to irregular warfare, and now and then makes a victim where he might be spared. We do not approve of the following quotation; it requires to be disavowed by those who are pleased with his general view of the subject:—"While this obnoxious and unjust partiality exists, the licentiate who is a graduate of Edinburgh or Glasgow, and who suffers himself to attend the monthly meetings of the President and Fellows of the College of Physicians of London, must have the soul of a footman and the brains of a turnspit; he cannot be alive to the just value of his character as a physician and a gentleman."

Whatever our hostility to the college, as a body, may be, we are bound to treat the invitation of scholars, of gentlemen, and physicians, with courtesy and respect. As long as the indolence of the licentiates allows the fellows to usurp their rights, they must consider the college as the governing body of the profession; it is only by fair, by honorable, and by legal means they can attain their rights, and courtesy and gentlemanly feeling must pervade their conduct.

Machaon is a warm advocate for a charter to the University of London; this, however, will become needless, if the Royal College of Physicians obtains, as it ought and will do, the privilege of giving degrees, from whatever school of education the candidate may have come.

Many pamphlets will no doubt be written upon this subject; but we suggest that they should be addressed to the public, before whose tribunal this question is about to be brought by some powerful advocates, rather than to the profession, who are all aware of the necessity of reform, and who will strenuously aid the good cause.

Compte Rendu des Travaux de l'Ecole de Médécine d'Abou Zabel (Egypte) par CLOT BEY, &c. &c.

THIS plain and unaffected narrative of the labours of this distinguished individual excites our admiration and our respect. In the year 1825, M. Clot was invited by the agents of the Viceroy of Egypt, the illustrious Mahomet Ali, to quit Marseilles, and become physician and surgeon in chief to the armies of that prince. He accepted the office, and immediately was at his post. On his arrival he found only the semblance of an organized medical department. He was quickly apprized of the difficulties he had to encounter: the disorder, the intrigues, the jealousies, that had existed among his predeces-

sors, were laid before him in the strongest light. He felt that alone he could not undertake the vast responsibility which must devolve, under such circumstances, upon a reformer. He therefore with great discretion and tact, commenced by reconciling the heads of the different departments to the innovations he proposed. He was singularly successful, for he found he had men of intelligence to apply to, who only required to have the proposals laid before them properly explained, to lend him their assistance. Possessing a very happy power of persuasion, and of conciliating those who were likely to oppose him, he obtained, through the assistance of M. Bossari, the viceroy's chief physician, the appointment of a council, which he soon rendered useful in obviating the difficulties which a difference of language, of education, and of religion, would otherwise have interposed. At the first meeting of this board at which he was present, he suggested a plan of organizing regimental hospitals, and of rendering medical assistance available throughout the army. His plans were adopted, and he obtained for the medical officers a grade, an uniform, and the same honours which were bestowed upon the other officers, and for the first time they were thus honorably recognized in the Egyptian army. He likewise directed similar attention to the navy, and his efforts were crowned with success.

The frightful mortality of former years quickly disappeared; and though many difficulties and impediments were thrown in the way of this sagacious reformer, his services began to be acknowledged and his talents admired. A large and beautiful hospital was immediately founded, which served as a model for others. About four leagues to the north of Cairo, upon the confines of the Desert of Kanka, arose the hospital and school of Abou Zabel. Many are the travellers who have visited this spot, and have spoken with enthusiasm of that which they saw. Amongst them Michaud, the learned historian of the Crusades, pronounced the following eulogium to the pupils:—"Gentlemen, I have traversed many of the eastern countries, but I have seen nothing more deeply interesting—nothing that speaks more eloquently to my feelings—than the school of Abou Zabel. The ruins of ancient Egypt are no longer the sole wonders which will bring the traveller here; we shall no longer content ourselves with studying the history of this beauteous land upon the mysterious marble of the tomb. I have seen the sciences which relieve and console humanity taught with success upon this spot, and I have fancied that I beheld the school of Alexandria suddenly spring up before me, on the confines of the desert. On beholding the number of students thronging from every city and from every province, one can well judge that science is no longer a secret and a privilege, but that it will one day flow around like the beneficent streams of the Nile. Glory to the founder of the school of Abou Zabel! He knows, like one of the first of the Caliphs, that those who protect human reason are the true benefactors of mankind, and will never be forgotten. History scarcely can tell us the names of the kings who built the Pyramids; but what nation has allowed the names of those to slumber in oblivion who have founded institutions, and aided the diffusion of light throughout the world?" Amongst the mighty efforts of presiding genius must be ranked the power of reconciling to the mind of the bigoted follower of superstition, the study of a science which has excited dread and aversion. Anatomy, the foundation of medical science, was, even in the days of Rhazes, of Avicenna, of Albucasis, of Averroes, quite unknown, for it was considered incompatible with religion; it is now zealously and fearlessly cultivated. The prejudices have been removed; the shackles that fettered the human mind have been shaken off; and to one man this effort is owing. He has

also taken advantage of the peculiar enthusiasm of the love of the marvellous, and the thirst for glory, which distinguish the Arabians, to direct their minds to the glorious study of medicine. His success has been complete; he has formed a splendid school of medicine; his pupils have distinguished themselves, and their career will yet be splendid. As a surgeon, he has been eminently successful; and as the climate of Egypt has materially influenced his operations, he has had opportunities of displaying the resources of the healing art. He has performed at Abou Zabel 58 operations for lithotomy, the stone in the bladder being a frequent disease, of which only six cases were unfortunate. He has performed 20 amputations; four successful operations for strangulated hernia; and extirpated a tumour from the scrotum, weighing 110 pounds. It is not to be imagined that his labours were always appreciated; he has had much to contend with, nay, even the dagger of the assassin has more than once been raised against him; still he has been eminently fortunate. His observations on plague, ophthalmia, and the dysentery of Egypt, will yet be given us, and we shall have opportunities of adding yet further testimonials of the greatness and the splendid mental powers of Clot.

Of his master, who has created him a Bey, or Prince, we must also speak. This illustrious monarch, for such must we call Mahomet Ali, was worthy the man whom he employed. His great and generous mind was capable of appreciating the value of Clot; he has rewarded him as genius should be rewarded, and his example might well be followed by the sovereigns of nations who consider themselves more refined and more highly cultivated.

NEW REGULATIONS OF THE APOTHECARIES' COMPANY.

The Company of Apothecaries have felt so much obliged to us for our strictures, that they forgot to forward us a copy of their new regulations. We owe it, however, to our readers to notice them; we need not state that they are as illiberal as usual—that is a matter of course. Their substance is, that all recognizable dispensaries in London must be attended by Fellows, inceptor Candidates, or *Licentiates* of the College of Physicians; and beyond the seventh mile-stone from London, by Graduates of some British University of four years' standing. In addition, their worships request, that certificates will be refused, unless the pupils be diligent in their attendance. These laws are obviously framed to bolster up the College of Physicians; and therefore the College Censors, when examining apothecaries' shops, and finding bad drugs supplied by the Hall, cannot but remember the old adage, "one good turn deserves another;" or, to speak classically, "gratia meruit gratiam." We beg to inquire what year of the world will the Apothecaries' Company of wholesale druggists cease to issue new regulations? At present, there are no less than five codes in operation, all framed upon narrow interested principles, and all unworthy of the English metropolis. Nevertheless, we shall have another code by next October. All this is done to gull the newspapers, whose editors will laud the salutiferous exertions of that meritorious body to the third heaven, and thereby endeavour to prevent a reformed Parliament from examining the shallow, flimsy policy of this impertinent association. Nonsense! This Company will be speedily deprived of its borrowed plumage.

HUNTERIAN ORATION AT THE ROYAL COLLEGE OF SURGEONS.

Mr. Howship delivered one of the best and most classic orations we have ever heard at the Royal College of Surgeons. He spoke extemporaneously, and displayed a degree of eloquence that excited repeated bursts of applause. Never was an oration

better received. During its delivery, a splendid bust of Abernethy, by Chantrey, was introduced, which produced a melancholy pleasure, and then immense applause. Notwithstanding many faults, the College was indirectly complimented, and a just tribute awarded to its laudable exertions. It is to be hoped that it will speedily adopt a more liberal policy, and secure the esteem of all its members. We shall notice the oration in our next.

DEFENCE OF THE UNIVERSITIES.

THE last leader in the Medical and Surgical Journal contained sentiments very unusual to the liberal opinions characteristic of that work, and require some explanation. It would be preposterous to deprive the universities of their long-established right to confer degrees, and to transfer that power to an institution contemptible in the eyes of all, on account of its narrow and antiquated policy. If the College of Physicians were conducted in a proper manner, and its members enjoying the same privileges in common, and its influence exerted for the good of the profession and the public, then it might be allowed the exclusive power to grant degrees in medicine *. But while its Examiners are selected as they are at present, some of them almost in their dotage, others inexperienced, with a perpetual President to prop up the system, they should not obtain the important rights of the universities. It is very true that they are as competent examiners, perhaps, as some of the teachers in the schools of those universities, where medicine is taught imperfectly; so that there is much to be said on both sides of the question. But the Licentiates should rally, meet, petition Parliament, and place their grievances before an enlightened public.

MEDICUS.

* It is on such grounds only, that we should wish it to have the power.—EDS.

REPORTS OF THE MEDICAL SOCIETIES.

I AM sorry to observe that the Medical and Surgical Journal does not give more ample reports of the proceedings of the Medical Societies of London, which are often highly instructive, as the results of much practical experience. The opinions of practical men are always valuable, and should not be withheld from the medical public. In saying this, I by no means complain of your periodical in particular; on the contrary, I admit that it gives the best reports, though few and far between. I have spoken to my contemporaries here, and all agree in my opinion. I trust, therefore, you will explain why it is you omit weekly reports?

A COUNTRY PRACTITIONER.

[Our explanation is, that we give reports whenever they are sufficiently interesting; but we cannot insert them weekly, because we should be advertizing the names, and too often the nonsense of certain persons who are regular speakers at these Societies. Besides, the older and more experienced physicians and surgeons have a great objection to reports. They have seceded from those societies, whose proceedings are placed on record. We cannot explain the cause of this, unless it is, that they disrelish being opposed by their juniors. Besides, it must be recollected, that the speeches at our societies are unstudied, that the subject for discussion is not known before the meeting, and consequently few can speak well upon it. Again, if we insert a report, every speaker is anxious to see his name in print, no matter how puerile or erroneous may have been his opinions; so that many difficulties stand in the way of reporting the proceedings of societies. We, however, condense all that is valuable, and present it to our readers as often as circumstances permit.—EDS.]

BOOKS.

The American Journal of the Medical Sciences, No. XX. August, 1832, and No. XXI. November, 1832.

We are extremely gratified to receive this truly excellent publication. It has been delayed in consequence of the illness of its Editor.

The Hunterian Oration, delivered in the Theatre of the Royal College of Surgeons in London, on the 14th of February, 1833. By JOHN HOWSHIP, Teacher of Surgery, and Surgeon to St. George's Infirmary, &c. &c.

Our opinion of this production will be found in a former page.

CORRESPONDENTS.

S.—We have often been struck with illustrious names, but that of "Blackguard Master-General to the Forces," for one of our profession, has excited our risible muscles in no ordinary degree. We think our Correspondent has mistaken his vocation: he must have been intended for the Church; and had he followed that laudable profession, he would have obtained a mitre or a cardinal's hat for his readiness in conferring the above cognomen. It was a felicitous designation, and not intended for any medical officer of the army or navy.

A Chemist must have been taking tartaric acid when he penned his angry epistle.

A Persecuted Practitioner.—The best mode of tranquillising Cerberus is to order a quantity of drugs: this is an effectual sop; or another is to pay the attorney's bill. As to a wife and nine children, and a country practice, these are no palliation.

A Druggist.—Our infuriate correspondent must have been adulterating copaiba with linseed oil, calomel with chalk, and prussic acid with *aqua pura*, when he seized his pen to annihilate us.

We shall feel obliged to our Dublin correspondent for a speedy communication.

Medicus.—The second part of Dr. Copland's Dictionary will appear in a few days.

Edinensis.—We shall be happy to insert an Edinburgh course of lectures, when our arrangements permit.

Medicus.—Dr. Ryan's lecture on iodine will appear as soon as possible.

A Pupil.—Our correspondent comes under the new regulations, and must comply with them, by registering his tickets before the 21st instant.

An Assistant.—The case is unfortunately too common; employers or governors are often extremely unreasonable in expecting the performance of menial duties from gentlemen.

A Country Correspondent may be assured that all the Lectures of Professor Cooper, which he so highly prizes, will appear in this Journal. We offer this reply to numerous other correspondents.

A.—The step intended is illegal, and if detected by the Apothecaries' Company, will lead to legal proceedings.

A Licentiate Apothecary.—We are obliged by the encomium passed upon us for our exposure of medical abuses. We only feel that we have done our duty.

A Georgian.—The way in which our Journal is printed in double columns precludes the possibility of inserting such tabular matter.

An Army Medical Officer in our next.

F. W.—The strictures on the Reminiscences are too severe. The writer may be one who supposes we ought to fill our pages with grave matter, but we think our first sheet affords much more value for his money than the whole contents of other Journals.

An Obstetrician.—It was certainly new practice to open the breech with a craniotomy forceps—to allow a fine young woman of eighteen to die undelivered. Who can wonder at this, when the Colleges of Physicians and Surgeons, with the Apothecaries' Company, don't examine on midwifery? It is, of course, no consequence, that that sex, which man is instinctively bound to cherish, should be injured, her life imbittered, or destroyed, and her innocent offspring sacrificed, because the medical corporations are so obdurate and inhuman as to exclude obstetricy from their examination.

In answer to a Medical Pupil, we have learnt that students are received at the Charing-cross Hospital as dispensary pupils; the terms are ten guineas to the physician's practice, for the period required by the Apothecaries' Company; and that those who now enter will not be called on to pay any additional fee, when it is completely established as an hospital.

Damages and Costs against Dr. Ryan for defending the honour and dignity of the Medical Profession nearly £800.

Amount of Subscriptions already received in aid of Dr. Ryan . .	£202	16	0
Dr. Clendenning, of Wimpole-street	1	1	0
A Friend to Reform . . .	1	1	0
An Enemy to Quackery .	0	10	0
C. J. A.	0	5	0
A Student at Guy's . .	0	5	0

ALL Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 57. SATURDAY, MARCH 2, 1833. Vol. III.

LECTURES
ON THE
PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,
BY PROFESSOR SAMUEL COOPER.
Delivered at the University of London, Session 1832—1833.

LECTURE XXV., DELIVERED NOV. 29, 1832.

Gentlemen,—The subject, which I wish to explain to you this evening, is the treatment of cuts, or incised wounds. A simple incised wound being unattended with any contusion, laceration, or other injury, in addition to the mere division of the textures, must obviously be, in general, more easy of cure than any other description of wound: in fact, there is nothing to do but to bring the opposite surfaces of the wound together, and keep them in this position for a few hours, and they will grow together in the most perfect manner, without any necessity for the more circuitous and complicated processes, noticed in the healing of many other wounds. Frequently, indeed, the cure takes place so expeditiously and so perfectly, that an individual, who has an incised wound of a foot or two in length, will have it cured in twenty-four or forty-eight hours, without the slightest degree of suppuration taking place. This is sometimes seen after amputation, the stump healing most completely and quickly at every point, without a particle of suppuration, except perhaps just where the ligatures happen to be situated. All this, too, may happen without any particular or serious disturbance of the constitution, which is scarcely excited by so smooth and tranquil a process, as that of *union by the first intention*. I am speaking of *simple* incised wounds, because when they are *complicated* with injury of any orgar, whose contents continue to be discharged through the track, which the weapon has made, the cure may not be so readily attainable. Here, gentlemen, you will have to consider the particular nature of the complication, and regulate the treatment accordingly: thus, when an artery of considerable size is wounded, the bleeding must be stopped without delay, because, if this plain indication be neglected, you may lose your patient before any opportunity is afforded you of exerting your skill in the treatment of the accident in other respects. Hæmorrhage from the brachial or femoral artery may destroy the patient in a few minutes. Here, however, the degree of instant danger depends materially upon the circumstance of the external wound being free and open, as the generality of cuts usually are; for, if it were a punctured wound, or stab, the blood, not being able to escape externally, would collect, and either an aneurism, or an effusion of blood to some extent in the cellular membrane, be the result; but, of course, when the wound is open, the blood will flow out, and the hæmorrhage be much more profuse and immediately dangerous. As a counterbalance to this disadvantage, the wounded vessels are generally more easily discovered and secured in an incised wound; the open free nature of such an injury lets them be secured without difficulty: sometimes, however, the extremities of the divided artery retract in a considerable degree, so that they are not so easily taken up, and it is necessary to make use of the knife, in order to get at them. Then, gentlemen, supposing the parotid duct were cut through in a wound of the face, it would be very necessary to attend to this complication; for if the wound were allowed to heal without proper steps having been taken, in relation to the injury of that duct, the consequence might be the formation of what is termed a *salivary fistula*, out of which the patient would be incessantly annoyed with a discharge of saliva. Cuts of the throat are often complicated with wounds of the trachea, larynx, pharynx, or œsophagus, and consequently victuals or air may frequently pass through the external wound; complications unfavourable to a speedy cure, and occasionally requiring especial attention.

Gentlemen, if a patient were brought to you with any kind of incised wound, you would commonly have three grand indications to

fulfil: first, you would have *to stop the bleeding;* this is the primary and immediate duty, and if it be not done without delay, the patient may die in a few minutes; and, whatever be the circumstances to which it may be necessary to attend afterwards, the steps required to suppress the hæmorrhage cannot be deferred. The reputation of the surgeon, and the welfare of the patient, peremptorily dictate immediate attention to the bleeding. Every thing else may be postponed; but so rapidly fatal is profuse hæmorrhage, that the very existence of your patient will often depend upon your doing what is necessary for its stoppage without any loss of time. Secondly, having stopped the hæmorrhage, your next duty is to *search for,* and *remove, any extraneous substances,* or *foreign bodies,* which may happen to be within the wound, or any kind of matter likely to prevent union by the first intention, on the principle of irritation, or by intervening between the surfaces, which you wish to unite. When a wound is made with a clean sharp instrument, there can be no foreign substances to remove; but cuts and wounds are frequently made with pieces of glass, or china, or other substances, which break at the moment that the injury is done, and some portions of them may remain in the flesh. So, if a person were thrown from his horse, and his knee to be cut with a flint on the road, the wound, though an incised one, would demand attention to this indication. This is so true, that, if you were to close the wound, without having searched for and extracted any bits of gravel or broken flint contained in the part, and your patient were afterwards to suffer long confinement, severe inflammation, and tedious abscesses from the omission, you would be liable to an action against you for damages. I make these observations, gentlemen, in the hope of convincing you of the importance, even for your own sakes, of attending to the second indication. In fact, if, instead of taking the earliest opportunity to remove extraneous substances, you negligently closed the wound, the patient might be subjected to much future pain and annoyance. I have seen an example where the omission to remove some pieces of glass from the hand, caused the patient to lose the use of it for several years, in the course of which time repeated incisions and operations were practised for the removal of these irritating foreign bodies; operations, however, which were not always successful. Now, all this suffering and inconvenience might easily have been prevented, if the practitioner had taken the precaution to remove the bits of glass, in the first instance, before he dressed the wound. Thirdly, in all incised wounds, *another object* requiring your attention, *is to bring their opposite surfaces together,* and to take other measures for healing the part as speedily as possible. There are, therefore, three general indications in the treatment of incised wounds, 1st, to stop the bleeding; 2dly, to remove any extraneous substances which may be present; and 3dly, to close the wound, and promote the healing process.

Now, gentlemen, in order to be methodical, it will be as well to devote a little time to the consideration of the subject of hæmorrhage, though it is not of much consequence whether we treat of it at this opportunity or at a subsequent period, when we come to the diseases of arteries. It is especially necessary, in incised wounds, to attend to the hæmorrhage, because arteries, cut with a sharp-edged instrument, bleed with extreme profuseness; more copiously than when they are injured in lacerated or contused wounds, cases in which the hæmorrhage is sometimes trivial, even when arterial trunks of considerable magnitude are involved.

Gentlemen, it is scarcely necessary to remind you, that of all the injuries of the body, for which surgical assistance is demanded, there are none which require so prompt a recollection of anatomy, as hæmorrhage from great arteries; indeed, it is difficult to conceive how a professional man can remain with his conscience at ease, while he is unacquainted with the course and relative situation, of the arteries of the human frame. From want of this knowledge, a practitioner may lose his reputation in an instant: he may understand the common routine of his profession; but an unfortunate case of hæmorrhage may at length demand his immediate assistance; and, from his not knowing how to proceed, all his prospects in life may be suddenly blasted. In the present spirit of the times, you know very well, gentlemen, that every serious error in practice receives no commiseration, especially when committed by a regular member of the profession. A quack is spared; but a physician, or surgeon, is consigned to infamy and ruin. If any other consideration were necessary to induce you to study the anatomy of the arteries with particular care, I might mention one that ought to gratify your national pride. I might tell you, that the treatment of wounded and diseased arteries has been more improved by the genius and labours of the surgeons of this country, than by the united exertions of the surgical practitioners of all other parts of the world together. Previously to the time of John Bell, I might ask, what surgeon in any other country had elucidated and proved the sufficiency of the anastomoses to maintain the circulation in a limb when its principal artery had been tied at its very exit from the body? Scarpa illustrated the subject most beautifully afterwards; but it was John Bell who had the merit of leading the way. What practitioner, before the æra of Dr. Jones, had satisfactorily explained the principles, by which the choice and application of ligatures, and, in fact, of every means for stopping hæmorrhage, ought to be determined? Before the days of John Bell and Abernethy, what surgeon in any other country had properly insisted on the necessity of applying the ligature to a part of the artery where it lies undisturbed amongst its natural

connexions, and where the regular supply of blood to its tunics, through the vasa vasorum, must be a favourable and an essential condition to any healing process in them? It is manifest, that if an artery be extensively detached from its connexions with the surrounding cellular texture, and a ligature be then applied to the insulated portion of the vessel, there will be the greatest risk of secondary hæmorrhage; because, how can any healing process be established in that part of the artery whose coats are deprived of their supply of blood by the extensive separation of the vessel from the surrounding tissues?

Gentlemen, I need not detain you with a description of the differences between arterial and venous hæmorrhage. You know that the blood flows with greater velocity from arteries than from veins, and that it is of a bright scarlet colour, while that of the veins is a dark purple or crimson. The stream of blood from a vein is unbroken and uniform, while the gush of blood from an artery is by jets, or *per saltum*. On account of the circulation in the veins being slower than in the arteries, wounds of veins are generally less dangerous; and if we except bleeding from certain large veins within the great cavities of the body, we may say, that venous hæmorrhage may usually be stopped readily enough by means of compression. Such is not often the case with bleeding from arteries of any magnitude; here more powerful measures are commonly necessary. However, if a wounded vein be large, and in a situation where it cannot be effectually compressed or interfered with, the accident may be as fatal as if a considerable artery were concerned.

Gentlemen, you cannot judge of the right principles for observance in the treatment of wounded arteries, unless you entertain correct ideas of their structure, and of the processes adopted by nature for the closure of divided or punctured arteries; or, in other words, unless you have some just conception of the means which she employs for the stoppage of bleeding. You will learn from the Professor of anatomy, that arteries have three coats: the internal one is very thin, and capable of much more extension in the longitudinal, than in the transverse direction. The *middle coat* is the thickest, and is generally considered to be composed of circular muscular fibres, which differ, however, from those of common muscle, in being more elastic and of a much paler colour: they are, indeed, so elastic, that, when the outer coat is dissected off, they alone will prevent a collapse of the artery, and enable it to retain an open-mouthed cylindrical form. The *external coat* is remarkable for its whiteness, density, and elasticity; and it is so strong, that, when an artery is firmly tied with a small ligature, the internal and middle coats are both divided, but the external one remains perfect. In fact, the division of the internal and middle coats is as complete as if they had been cut with a knife. Then, besides the three proper coats, every considerable artery is contained in a *sheath*, to which it is connected by fine cellular membrane; and when the artery is cut through, this intermediate cellular membrane, being loose, permits the ends of the artery to retract a certain way within the sheath. The extremities of a divided artery also undergo a certain degree of contraction, which, according to the experiments of Dr. Jones, is always permanent. Thus, two changes invariably follow the division of an artery, namely, the retraction of its ends within the sheath, and their contraction.

In addition to the foregoing particulars, you should understand, gentlemen, that arteries have the same general organization as all other living parts,—that they are furnished with arteries and veins of their own (which, indeed, I have already mentioned), the *vasa vasorum*, and with nerves and lymphatics; in a word, their nutrition is carried on in a similar way to that of other organs. Such being the nature of their organization, they must of course be liable to the generality of diseases to which other parts of the body are exposed; for instance, to inflammation, suppuration, ulceration, mortification, &c. The vasa vasorum are particularly conspicuous in some preparations in the museum. Here is a portion of the carotid artery, in which they are very plainly seen *(the preparation was handed round)*. The contractile power of arteries is curiously exemplified in this preparation, in which you will observe portions of the femoral artery: that which has a pink tinge was taken from the thigh of a young soldier, directly after amputation, and you see how much it is contracted; the other was removed from another young man of similar stature and age, who died of erysipelas, and you may remark, that its diameter is twice as great as that of the artery taken from the thigh directly after amputation.

In former times, the circumstances conducive to the natural cessation of hæmorrhage were very imperfectly comprehended. The spontaneous stoppage of bleeding was referred, by Petit, to the formation of a coagulum over the orifice of the vessel; Pouteau ascribed it to another event, namely, to the swelling of the surrounding cellular membrane; Gooch, to contraction of the end of the artery itself; and John Bell, to the injection of the adjacent cellular membrane with blood. The fault of each of these explanations is, that it is too limited—not sufficiently comprehensive: for the process includes not merely one of these means, but actually comprises them all; and not only all which have been specified, but some others, to which I shall presently invite your attention. When an artery is divided, it *retracts* more or less within its sheath, and its extremities *contract* partially, that is to say, not sufficiently to prevent altogether the escape of blood through them. The blood continues, indeed, still to flow from them with impetuosity; but some portion of

it is injected into the cellular tissue between the artery and its sheath, and another portion is thrown into the cellular membrane on the outside of the sheath in a greater or lesser quantity, according to the open or confined state of the external wound.

There is first the retraction of the artery within its sheath, and then the contraction of the extremities of the artery, but not in a degree sufficient to prevent the escape of the blood. Afterwards, as the hæmorrhage goes on, the blood is injected into the cellular membrane within the sheath and on the outside of it, the latter being in a greater or less degree, in proportion to the open or closed condition of the external wound. Now, it is plain, that the retraction of the artery within its sheath must lacerate or stretch the fine cellular tissue connecting them together, and thus you may conceive that the inside of the sheath will be rendered somewhat irregular, and its inequalities begin to entangle some of the blood; in fact, it now begins to adhere to the lacerated cellular tissue, and thus forms the nucleus of a *coagulum*, which gradually fills up the sheath from the circumference to the centre. This is termed by surgeons the *external coagulum;* and, as it is situated over the mouth of the artery, and within the arterial sheath, it constitutes the first complete obstacle to the continuance of the hæmorrhage. In a superficial examination, this coagulum seems as if it were actually within the artery itself; but, if the sheath be slit open, the coagulum will be found not to proceed within the mouth of the artery. Besides this *external coagulum*, there is an *internal one*, really situated within the artery, but only formed when no collateral branch is given off near the wound in the vessel: the external clot is always produced; but the formation of the internal coagulum is necessarily interrupted when a collateral branch is given off too near the point where the artery is opened. The internal coagulum is slender and conical, and adheres to the sides of the artery only by a small portion of its base, which is situated at the orifice of the divided artery, while the apex extends in the contrary direction within the vessel. But, gentlemen, this is not the whole of the process, for the artery unavoidably inflames at the place where it is wounded, and the vasa vasorum pour out coagulating lymph, which fills up the extremities of the artery, becoming intermingled with the coagula, and firmly adherent to the inside of the vessel. The permanent suppression of hæmorrhage seems to be secured chiefly by this effusion of coagulating lymph; but other circumstances have a share in the process; particularly the gradual contraction of the end of the artery, the effusion of lymph between its tunics, and into the surrounding cellular substance. The processes, which take place in the end of the artery furthest from the heart, are nearly the same; except that the contraction of this portion of the vessel is still greater, seemingly designed as a compensation for the smaller size of the external coagulum. The portion of the artery lying between its closed extremity and the first collateral branch, is obviously now of no further use for circulating the blood; it is, therefore, gradually obliterated, or converted into a fibrous cord, or a mere shred; a change exemplified also in the umbilical arteries and the ductus arteriosus, as soon as those vessels are no longer required to serve as channels for the blood. In this preparation, which is a portion of the femoral artery, taken from a person who died eight days after amputation, you see how far the process has advanced by which the vessel is rendered impervious. You see also the internal clot, or coagulum within the artery; the thing is very manifest.

Here is another preparation, exhibiting a portion of the femoral artery, removed from a stump; the internal coagulum is diminutive, because a collateral branch arises near the ligature. The next preparation is a portion of the brachial artery, tied after amputation; here you may also notice, that the internal coagulum is very small, a circumstance accounted for by there being a collateral branch given off close above the ligature. If a surgeon tie the end of a completely divided artery, of course there can be no external coagulum, but an internal one will be produced, if no collateral branch originate too near the ligature. If there should be a collateral branch in that situation, either no internal coagulum will form, or only one of diminutive size.

Well, gentlemen, such are the processes, which nature adopts when an artery has been completely divided; but, supposing the artery to be only punctured, or partially divided, how does she then proceed? A quantity of blood is effused into the cellular membrane, between the vessel and its sheath, for some distance above and below the puncture; a stratum of blood is thus formed, and it is a curious fact, that it becomes thicker over the opening in the artery than elsewhere. The distention of the sheath by this stratum of blood has a very important effect, for it changes the relative positions of the wound in the sheath, and of the aperture in the artery, the two openings no longer corresponding to one another. This will manifestly produce an impediment to the direct escape of the blood, at the same time that the stratum of blood over the wound in the vessel becomes well supported by a sound part of the sheath. But, gentlemen, these are only temporary means for the prevention of bleeding from a punctured artery, and its permanent stoppage depends on a process either of obliteration or reparation. When the puncture does not divide the artery to an extent exceeding one-fourth of its circumference, it may heal without obliteration of the arterial canal; the vessel may still continue pervious. Such was the result of Dr. Jones's experiments, when the wound was not greater than what I have specified. Béclard found, that when the femoral artery of a dog was pricked with a

needle, the bleeding soon stopped of itself, and this although the external coagulum was purposely removed; and, when the artery was afterwards examined, no traces of the puncture could be detected. Some other experiments, performed by the same distinguished Professor, tend to prove, that the wounds of the arteries of dogs are cured by nature, when the wound is only a longitudinal puncture or cut, and this whether the vessel be deprived of its sheath or not; but, that if the wound be transverse, or across the artery, it will not heal if the sheath be removed, the removal of the support derived from the sheath being a most disadvantageous occurrence. But, with the aid of the support of the sheath, the wound is sometimes cured, even though the artery be cut across to the extent of one-half of its circumference. However, if more than a quarter of the vessel be cut through, you may infer that its canal must, at all events, be obliterated.

Gentlemen, I will now explain to you the various means employed in surgery for the stoppage of bleeding; and first, let me direct your attention to the *tourniquet*, the instrument which I now show you; its importance may be well conceived, when I tell you that its invention forms a kind of epoch in the annals of surgery. Before the tourniquet was invented, surgeons could not undertake any capital operation on the limbs, without some danger of the patient being destroyed at once by loss of blood; and, when arteries of magnitude were accidentally wounded, the patients usually perished of hæmorrhage before the surgeon had time to adopt the requisite proceedings for the permanent suppression of the bleeding. The construction of the tourniquet is extremely simple; you may perceive, that it consists of two brass plates, connected together by means of a screw, and furnished with four rollers, over which a strong band is drawn; to the band are attached a buckle, and also a pad, intended to be put over the artery. Now, when the tourniquet is buckled on, it may be tightened by turning the screw, for then the two plates are separated, and the band rendered tense. Some tourniquets have a piece of leather placed under the brass frame, so as to prevent the limb from being hurt by it; and occasionally the band has no pad, but the compress is placed under the brass frame, opposite the handle of the instrument, which is then put over the situation of the artery. The tourniquet, though of vast utility, is not of any service for the permanent suppression of bleeding; indeed, it is only employed until time has been afforded for the adoption of measures, whose effect will be more lasting; for it cannot be kept tight on a limb for a long time without danger of mortification. However, when you are called to a person with a wounded artery in one of the limbs, you may apply the tourniquet for a time, and then you have an opportunity to consider deliberately what are the next measures you ought to pursue. The tourniquet is also sometimes useful where there is apprehension of hæmorrhage; for instance, after amputations, if you have reason to expect the occurrence of secondary hæmorrhage, you may leave the tourniquet loosely applied, and direct the nurse, or any attendant, to tighten it in the event of bleeding, and then send for further aid. I have known several instances where surgeons lost their patients in consequence of neglecting to take this precaution. Many years ago, a lady was operated on by Mr. Abernethy for a popliteal aneurism, and no tourniquet was left loosely applied. The wound soon afterwards began to bleed profusely: Mr. Abernethy was sent for but could not be met with: the family then despatched a messenger to Mr. Cline, but on his reaching the house, the patient had expired. I consider it, therefore, to be the surgeon's duty, after capital operations on the limbs, to leave a loose torniquet on them, ready to be tightened in an instant, in case of sudden and dangerous hæmorrhage. The practice can do no harm, and may be the means of saving the patient's life.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE XII.

Remedy for Gout.

Gentlemen,—In my last lecture I recommended for your adoption the mode in which I usually give the carbonate of ammonia, and pointed out its efficacy in particular stages of fever. There is a remedy I am in the habit of using in the treatment of gout, and of which, from repeated experience, I can speak favourably. It is a strong tincture composed of various aromatic, tonic, and purgative materials of the vegetable class, infused in French brandy. This medicine, in addition to its tonic effects, possesses the properties of a warm stomachic and purgative; it is well calculated to remove flatulence, and to act on the bowels without giving rise to any danger of cramp in the stomach; and hence it is of importance in the treatment of those dyspeptic affections which occur in a gouty habit As detail is necessary in introducing any remedy, I shall give the formula. ℞ Corticis aurantii ℥ij.; pulv. rhei. ℥j.; pulv. aloes cum canella ℥ij; spiritus vini Gallici ℔ ij. These materials are left to macerate for a week, and then strained. This tincture forms an excellent and powerful medicine; and, if taken in the quantity of a table-spoonful, mixed with two or three table-spoonsful of water, according to the patient's taste, every night and morning, it opens the

bowels, corrects the unhealthy state of the intestinal canal, removes flatulence, and if gout is about to make its appearance, almost invariably puts it back. If a person of gouty habit, acquainted with the peculiar sensations which usher in a fit of the gout, has this medicine in readiness to take on feeling them, it will generally succeed in arresting the attack at its very commencement. I have tried it with the best effects; and a friend of mine, who has been gouty for the last twenty years, is in the habit of using it with remarkable advantage. It is an old prescription, not much employed at present, but, nevertheless, especially deserving of attention. It is also a valuable agent in treating the dyspeptic affections of old gentlemen. In such persons we have frequently dyspepsia combined with flatulence, and this is one of the best medicines you can employ. You perceive it consists of a combination of tonics with purgatives; the orange peel possesses a tonic and stomachic property; aloes is tonic and purgative, and so is rhubarb. You are all aware that bark and other tonics often assist us wonderfully in the cure of gout and arthritic rheumatism. The Portland powder, too, a combination of vegetable tonics, once enjoyed a great reputation. On the same principle, therefore, we can explain the utility of this tincture, which may be given either to prevent a threatened attack, *when that is advisable*, or to dissipate the symptoms which remain after the inflammatory stage of the disease has yielded to appropriate remedies, such as general and local blood-letting, colchicum, &c.

There is one very troublesome occurrence common to most cases of protracted illness, requiring the greatest attention and care on the part of the physician, and in the treatment of which much ignorance is too often displayed by young as well as old practitioners; I mean the formation of bed-sores. If the duration of your patient's complaint renders him liable to such affections, how are you to act so as to obviate them? In the first place, you must pay particular attention to the state of his bed. I cannot speak of the hydrostatic bed of Dr. Arnot, which has been recommended in such cases, as my experience does not enable me to give any decided opinion as to its value. One of the best modes I am acquainted with of preventing the formation of bed-sores is, to keep your patient perfectly clean, to shift him frequently, and to take particular care to prevent him from lying in the wet. A physician should never trust the arrangements connected with his patient's manner of lying to the discretion of nurses; he should always look to it himself. You are advised to make your patient change his posture to obviate the effects of pressure, and to use cushions of various kinds. All these rules are good. You are also told to wash the parts with camphorated spirits of wine when any discoloration appears. This, too, is useful. But, in spite of all this, after fever has continued for some time, and your patient has become debilitated, bed-sores will come on not only in consequence of the effects of pressure, but also from the tendency in the constitution to form those sores. You remember the case of a man who had a bed-sore under the skin of the sole of the foot, and another under that of the heel,—parts totally exempt from pressure.

When the first redness, indicating the approach of a bed-sore, has made its appearance, various other means are usually adopted. Some advise the application of pledgets of lint moistened with camphorated spirits, and they endeavour to keep these pledgets in contact with the part, by means of bandages or adhesive plaster. Others use dry lint, or hair-powder, and many are in the habit of immediately covering the affected portion of the skin with adhesive plaster alone. The latter application too often aggravates the mischief, by exciting a rash and itchiness in the surrounding integuments, which becomes an additional source of inconvenience, and often forces the patient to scratch the irritated parts in such a manner as to disturb and remove all the dressings. You must recollect too, gentlemen, that fever patients are always restless, and frequently delirious, and consequently they are constantly changing their position, and tossing about in the bed, so that it is quite impossible to make use of any contrivance capable of keeping these applications in their place. After they have been fixed on and adjusted with the greatest care, if you return in a few hours, you will find them, if not removed altogether from the part, so wrinkled and crumpled, as to form, by the inequality of their pressure, new sources of irritation. What, then, is to be done? What means do I recommend to enable us to avoid so serious an evil? A case of this kind cannot be too vigilantly watched, and it is only by the most anxious attention and care bestowed upon every thing connected with the cleanliness, dryness, and comfort of your patient, that you can avert the formation of bed-sores in protracted and putrescent fever.

In private practice, I never treat a fever of this nature without having a second bed in the patient's apartment. After the eleventh or twelfth day, the patient is removed from one bed to another every twenty-four hours; and when the disease is still further advanced, and particularly if the patient wets the bed, the removal may take place every twelve hours. The moment he is changed, all the foul sheets and blankets are removed from the apartment, and if necessary a fresh mattress is provided. Many will contend, that the same object will be gained by carefully shifting the patient from one part of the bed to another, and by a diligent attention to dryness, by means of a constant renewal of sheets and cloths placed under him. These expedients must be used in both cases, but, without the change of bed, all our efforts will be too frequently ineffectual. During the progress of long-continued fevers,

the relatives and nurses of the sick are apt to become jaded and worn out at the very time when the greatest vigilance and activity are necessary; it is then that the physician ought to redouble his vigilance, he ought not to trust too implicitly to what is told him, but inquire into and examine every thing himself.

It is scarcely necessary to observe, that the fresh bed must be well heated with a warming-pan, and that when the patient is weak, his removal must be effected with the greatest care, and he must be carried, as nearly as possible, in an horizontal position from one bed to the other. When these precautions are observed, it is wonderful what advantage is derived from this plan. Indeed nothing can be more grateful than this removal from a tossed, foul, and wet bed to one that is smooth, clean, and in every respect comfortable. How often have I seen this change immediately followed by a sound and refreshing sleep. To be successful practitioners, gentlemen, you must not be merely scientific physicians, but you must understand the most minute duties of the nurse.

If, notwithstanding these precautions, bed-sores should arise, or if you are called to a case where they have already commenced, there is considerable redness and heat of skin in the affected part; it looks angry, and is slightly elevated and buffy in the centre; nay, there may be even slight abrasion of the skin, leaving an unhealthy festering surface,—what is to be done? Wash the parts well, three or four times a day, with a strong solution of nitrate of silver, 10 or 15 grains to the ounce of water; keep the part perfectly dry in the intervals between its application, and it is wonderful what a speedy amendment will take place. This plan of treatment I first saw succcessfully employed at the suggestion of Mr. Kirby, in a case of fever, where I thought it perfectly impossible to prevent the formation of extensive, and probably fatal, sloughing. You cannot conceive how rapidly the swelling, heat, redness, and puffiness of the part subsided under the use of this remedy; to me it was perfectly novel; but when we reflect upon its utility in erysipelas, we are only surprised that it was not before suggested in the treatment of *incipient* bed-sores.

With respect to the treatment of fully formed sloughing bed-sores, I have nothing to remark, except that when such are observed, the relatives of the patient would do well to dismiss both the nurse and the physician. Having spoken of the treatment of erysipelas by nitrate of silver, it may be well to mention, that in two cases in which I endeavoured to arrest the further progress of the disease, by circumscribing around it a circle of skin, blackened and vesicated by means of the application of solid lunar caustic, the plan failed, and the erysipelas made its appearance at the other side of the broad zone marked by the nitrate of silver.

I have been asked by one of the pupils to make a few observations on the treatment of sore mouth, arising from the use of mercury. It very seldom happens that I use mercury in such a manner as to affect the system rapidly and to a great extent, except in cases of acute disease; for, where life is at stake, we never think of regulating the degree of soreness to be produced. Sometimes we find a disease yielding when the mouth is but little affected; at other times a considerable degree of soreness and irritation is necessary to procure the effect intended. In general, if mercury be pushed to any extent, its action will be attended with much irritation and fever, accompanied by a buffy state of the blood. If you take a person and subject his system to the influence of mercury, you will observe that he is irritable, restless, and thirsty; that his pulse generally averages 100, and if you bleed him, his blood is buffed. Even a patient in typhus, who is affected by mercury, has his blood buffy, for it is one of the peculiar properties of mercury to produce this effect. The fever which mercury gives rise to seems to be most nearly allied to the inflammatory, and this is a singular fact.

There are various shades of difference in the manner in which the mouth is affected from the use of mercury. You have, for instance, a moderate flow of saliva, with a degree of tenderness and sponginess of the gums; or you may have a higher degree of vascularity and tumefaction, and excoriation, or stripping of the gums, edges of the tongue, and inside of the cheeks, with a tendency to superficial ulceration. Here the breath is more fœtid, the lips more swollen, the soreness of the mouth more considerable, and the patient is prevented from sleeping by the restlessness and irritation which arises from the mercurial fever. There is very little danger in such cases, and you find that they gradually subside under the use of mild aperients, given for two or three mornings. I say mild aperients, because the mercurial action is not unfrequently attended by a peculiar inflammation of the bowels, with discharge of mucus mixed with blood, tormina, and tenesmus. The latter symptoms commonly yield to a bland emulsion of castor oil, with tincture of opium, or to the carbonate of soda and lemon juice, with a small quantity of laudanum, or to the common chalk mixture. If they should happen to remain for any length of time, you have seen that in this hospital we use leeches to the anus, a purgative of two or three drachms of sulphate of magnesia, combined with a scruple of rhubarb, and afterwards an anodyne lavement, and that this form of treatment is generally adequate to the removal of such symptoms. You will also derive benefit from the employment of fomentations. Here I beg leave to call your attention to a curious fact. Where there is colicky or violent griping, pain in the belly in consequence of this, or any other affection, you will generally find a degree of coldness in the abdominal integuments, and this is a circumstance well known to nurses, and of which you can satisfy yourselves by feeling the abdomen, for in nineteen cases out of twenty you will find the

skin at that part cold. Where this occurrence takes place, I employ the repeated application of hot flannels, placed over the abdomen in rapid succession, for this is a much better way than to trust to fomentation, which is generally mismanaged. When there is considerable swelling of the lips and cheeks, and particularly where the purgative plan has not succeeded, I apply leeches over the salivary glands, eight or ten at a time, and this often diminishes the tumefaction. If, after the use of leeches, the soreness of the mouth continues, I employ a lotion composed of ℥j. of the chloride of lime in eight ounces of water, with twenty drops of dilute muriatic acid. This lotion is much used in the surgical wards of this hospital, and ought to be carefully applied to the affected parts by means of a syringe. You may also use ℥ss. of alum, a little tincture of myrrh, and ℈ij. of nitre in an eight-ounce mixture. If the gums remain spongy and apt to bleed, and the teeth have a tendency to loosen, I find a drachm of common carbonate of soda, with an ounce of tincture of myrrh, and twelve ounces of water, removes this inconvenience much better than anything else. There is another kind of sore mouth, where the parts are greatly inflamed, the mucous surface of the cheeks, tongue, and gums are much swollen and highly vascular, and the tendency is not to ulceration but to the formation of coagulable lymph, which forms a firm adhesive coat that is difficult to be removed from the membrane on which it grows. It seems to possess a certain degree of organization, and adheres, if I may so express myself, organically to its parent membrane. If it be removed by a natural process, it is done in the following way: it does not come off as other parts, in large flakes, but absorption commences on its internal surface, and in this way it is removed. This I have verified on a former occasion, and demonstrated to the pupils of this hospital. With respect to its treatment, the surgeons of this hospital are in the habit of employing a good application for its removal, and this consists in touching the parts all over with a camel's hair pencil, dipped in undiluted nitric acid; it is not easy to explain how the acid acts in this case. We know that nitric acid produces a powerful chemical effect on albumen, fat, and other animal substances, and that its action is attended with the disengagement of nitrogen; but here it must also produce some effect on the mucous membrane beneath, so as to stimulate the absorbents to remove the effused lymph, though it does not actually, as it would appear, come into contact with that membrane. On first observing the result of this application, I expressed my surprise that the acid should not only destroy the lymph, but also diminish the inflammatory action in the tissue beneath. But I believe we should not say that this membrane is impervious; it may have pores, and you are aware that late experiments have proved the transudation of fluids through various membranes of the body. Ink and prussiate of potass in solution will pass through the capsular ligaments of the joints. In the same way, perhaps, the nitric acid may find its way through this adventitious membrane, and act on the mucous surface beneath.

The instances of sore mouth already detailed, are rather troublesome than dangerous; but sometimes mercury affects the system with an unexpected rapidity, giving rise to destructive sloughing and gangrene. Thus, a patient in fever gets a dose of calomel, and on the next day you find an offensive smell from his breath, and, on examining the state of his mouth, you observe a black spot on the inside of his cheek, surrounded by inflammation and swelling; this spot quickly increases in size, and goes on until it destroys the cheek, produces caries of the malar bones, attended with severe constitutional symptoms, and finally sinks the patient. Dr. Cuming has written a paper to show that this form of disease is nothing more than cancrum oris. I have seen both; and I can pronounce, with certainty, that there is a form of mortification produced by mercury, which is different from cancrum oris. Mercury sometimes, even in the smallest quantity, seems to possess the power of affecting some constitutions injuriously. I have known a lady who was salivated by one grain of calomel. I have known instances of the same quantity producing ulceration of the gums in children. In this drawing you perceive a striking and terrific example of the ravages produced in the face of an unfortunate child from taking three grains of calomel. I shall not enter into the treatment of this disease; in most cases there is but little hope, and our efforts are principally directed to palliate and relieve the sufferings we cannot remove.

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

At St. Thomas's Hospital, Session 1833.

Articular Rheumatism — Chorea — Feigned Hepatitis: curious way of discovery—Singular Case of Malingering — Paralysis from Cold — Gastritis — Nervous Palpitation — Use of the Stethescope in Hypertrophy—How to distinguish it from Nervous Palpitation—Treatment—Efficacy of Iron in these Affections—Bellows Sound easily produced: Diagnosis of — Dangerous Effects of Depletion in Nervous Palpitation—Its frequent Occurrence in Males—Lawyers most subject—Tabes Mesenterica—Different Names by different Authors—Treatment—Efficacy of Iodure of Lead—Ill Effects of Iodine in Mucous Irritation of the Bowels—Mercury injurious in Scrofu-

lous Affections—Absurdity of the term "Alterative"—Convalescent—Stricture, accompanied with organic Disease of the Œsophagus—Symptoms of—Treatment—Death—Autopsy—Hypertrophied Heart—Ossified Larynx—Ulcer and Stricture of Œsophagus—Disease not malignant: why not—Remarkably small Stomach—Hypertrophied state of Submucous Tissue of Stomach—Rarity of this Disease in Stomach.

Gentlemen,—Since our last meeting, there have been five patients discharged from the hospital, and one death has taken place: three of those dismissed were males, and two females. One of the cases in the men was that of acute articular rheumatism; the patient was admitted into Luke's Ward on the 10th of January, and stated that he had been ill two months. It was not a case of any extraordinary interest, but simply an acute one; there was pain, swelling, heat, and redness of the greater part of the joints of the body: the pain was worse when warm; altogether, there appeared to be a good deal of vascular excitement of the system. I therefore had him bled twice, and gave him half a drachm of the wine of colchicum three times a-day. He was admitted on the 10th of January, and, under this treatment, he got perfectly well, and left the hospital on the 30th of the same month.

There was also a case of chorea discharged cured from Jacob's Ward. The patient was admitted on the 13th of December, and the boy had been suffering from it a year and a half. This case, however, I will pass over for the present, and speak of the particulars at our next meeting.

There was likewise a case of feigned hepatitis. The man stated he had been suffering for a week from acute inflammation of the liver; he was 62 years of age, and came all the way from Somersetshire that he might be able to get the advantage of a London hospital. Upon his admission, he presented, I think, as fine a picture of health as I have ever seen; his tongue was clean, complexion ruddy and perfectly healthy, and there was not the slightest wasting of the body. However, upon exploring the abdomen, he complained of acute pain in the left hypochondrium (so unfortunately he had mistaken the situation of the liver), and in this part he could not bear the least pressure. I then fixed my eyes upon his forehead, and pretending to perceive a slight eruption, questioned him as to the length of time it had been there. This drew his attention from the side; and, while he was answering, I pressed him with my hand in the left hypochondrium, using great force, without his complaining of the slightest uneasiness. Still I would not make up my mind too hastily, for fear I should be wrong in my opinion; for though he certainly had no disease of the liver, he might have some functional disorder of some other organ. I adopted, therefore, another plan, which I have frequently done before in this hospital, as well as at the St. Pancras Infirmary, when I have suspicion they are feigning disease. I ordered a crum of bread to be made into pills, and desired one of them to be taken three times a-day. At the same time I cautioned the patient against their effect, and told him if the pills produced vomiting, purging, or great heat about the stomach, he was still to persevere; but should the purging and vomiting be very excessive, he might then omit the pills until my next visit. Now, in this case, it happened just as I expected, for he told me that the first pill caused great sickness and burning pain in the stomach, the second made him vomit severely, and the third purged him seven or eight times; but still he said he would persevere if I wished it, *though their effects were so violent.* Upon asking to see the matter vomited and the discharge from his bowels, of course neither was forthcoming; and having ascertained from the sister that he had an excellent appetite—ate all that was given him, slept well, and still looked in perfect health, I was satisfied there was nothing the matter, and sent him out, after keeping him in the hospital one week. It appeared he worked for the glove trade, came to London to find work, and not succeeding, thought he might as well take up his quarters in the hospital. I recollect, some years ago, a woman coming into Lydia's Ward, before there was a separation between the physicians' and surgeons' patients, under the order of the lord mayor, by whose order, I believe, they must always be admitted. This patient said she suffered from acute pain in the knees, the pain being so severe that she could not walk or stand, and upon her attempting to do so she would scream out. She also complained of pain in the shoulders, and fore-arms; and on her trying to move the arms upwards, she complained of exquisite pain. Yet I could not find any constitutional derangement; her tongue was clean and natural; appetite very good. It struck me at the time I was examining her that she was an impostor, and remember ordering her some bread pills. She lay in the hospital some time, and was unable to move her legs, or raise her arms. The treatment, in this case differed somewhat from the one I have been speaking of; for, in this woman, I blistered both her shoulders and knees frequently, which she bore with exemplary patience; still, however, she did not derive any benefit from them. Though convinced she was feigning, still I forbore from discharging her; it was winter, and she would probably have gone back to the lord mayor, and stated how cruelly she had been discharged, without any alleviation of her sufferings, and the public would have been very ready to believe her. But one night (past midnight), it being very inclement weather, and, I suppose feeling cold, the fire in the ward being very low, and believing all in the

ward asleep, she jumped out of bed, ran to the fire-place, seized the poker, which was a very heavy one, gave the fire a good stirring, and then went back to her bed, quite as actively as any of you could do. One of the patients in the ward, who thought I was imposed upon, told me of it the next day, when, of course, I discharged her. Nevertheless, I would always rather have the hospital imposed upon by a few of this sort, than have one turned out who was actually suffering from some disease, which I might be unable to discover.

Among the females there was a case of paralysis discharged from Mary Ward, arising from cold. The other was a case of chronic gastritis, sent from Elizabeth Ward. These two cases, however, I shall defer until our next meeting.

I wish now to draw your attention to a case of nervous palpitation which was discharged from the hospital the week before last. It occurred in Harriet Pervey, a servant, sixteen years of age, who was admitted on the 6th of December with a countenance pallid, chlorotic, and bloodless. Stated she had been unwell since June with violent palpitation, accompanied with dyspnœa, cough, but no expectoration. Complained, also, of occasional pain in the shoulders, and throbbing pain on the top of the head; tongue morbidly red; appetite variable; great flatulence of the stomach and bowels, which were rather confined; pulse 100, small, sharp, and jerking. Was unable to lie on her left side in consequence of increase of palpitation, which would often come on when she was perfectly still; slept very badly, and was frequently troubled, whilst slumbering, with frightful dreams, often starting in her sleep. Previously to the occurrence of the palpitation, she menstruated regularly: since that period, she has been irregular as to time, but the discharge is of a pale colour, and very scanty. In order to ascertain the nature of the disease, I carefully examined the chest: on percussion, there was no dull sound elicited beyond the ordinary limits of the healthy heart. It was acting very violently, but not beating over a larger space than natural; the heart's force and frequency were each increased, but the shock against the ribs gave only the sensation of a very sharp, smart stroke, without at all elevating the head of the auscultator, or that heaving of the parietes of the chest which we find in hypertrophy. Synchronous, too, with the pulse, occurring immediately with the systole of the ventricle, a loud bellows sound was heard over the whole præcordial region, and more or less over the whole chest, both in the erect and recumbent position. There was great throbbing of the carotids, no pain on pressure between the ribs over the region of the heart, and respiration was heard naturally over the whole chest. When I examined her, of course from the agitation she was in, all the symptoms were aggravated; still I was satisfied there was no organic disease of the heart, and that it only was functionally deranged in common with the uterus, stomach, and bowels. My reasons, then, for considering that it was merely a case of hysterical or nervous palpitation were, first, because there was no more dull sound over the left side of the chest than the ordinary limits of the heart; secondly, because there was no tenderness, on pressure, on the præcordial intercostal spaces; thirdly, the heart did not beat over a larger space than natural; fourthly, although the action was violent, the shock against the ribs was only a smart, short, jerking stroke, not heaving the parietes of the chest, as in hypertrophy, but as if there was spasmodic contraction of the fibres of the heart; fifthly, because the sounds of the heart were natural; and sixthly, the pulse, at the radial artery, corresponded exactly, in its degree of force, with that of the ventricle. The stethescope, in this case, was very useful; for, after I had examined her with it, I was able to satisfy my mind, that it was simply a case of nervous palpitation; and certainly, without the use of my ears, by it, and by percussion, I could not; but with them I was quite satisfied that the disease of the heart was merely functional. She came in on the 6th of December, and was not prescribed for by me until the 8th. Mr. Whitfield, however, in the mean time, very properly, had her bowels well cleaned out by purgative medicine. When I saw her, I ordered her two grains of the sulphate of iron, combined with half a drachm of the tincture of hyosciamus, a drachm of Epsom salts, with an ounce and a half of infusion of quassiæ, three times a day, and to have good diet, meat daily. Four days after this treatment she was much improved; the bellows sound was less distinctly heard; the action of the heart was not so violent, the pulse became more natural, and the palpitation was less frequent. At this time she complained to me of her medicine being very nasty (as well she might), and begged I would alter it. I ordered, therefore, three grains of the sulphate of iron to be taken three times a day in the form of a pill, and that the bowels might be kept open; Pil. aloes cum myrrha, gr. v. every night. The sulphate of iron was soon increased to four grains at each dose, and she continued to improve under it. On the 26th, sixteen days after taking it, she complained of pain in the head and heat about the forehead, which symptoms are frequently produced by the most of the salts of iron, and especially by the sulphate. Still I was convinced that iron was the best remedy for this disease, and, therefore, changed the sulphate for the carbonate, and she took a drachm of that medicine three times a day. After she had taken the preparation of iron for some days, her head-ache ceased, but her appetite diminished; I still, however, wished to persevere in its use; and, in order to increase the tone of the stomach, I gave her two grains of the sulphate of quinine, with an increased dose of the carbonate of iron, viz. two drachms as often as before.

After a little time her stomach returned to its healthy action; head became free from pain; action of the heart became natural; and the bellows sound went away. She eventually went out, after continuing with this medicine five weeks, on the 14th of January, quite well. From her not having menstruated while in the hospital, I gave her at first twelve minims of the strong solution of ammonia in an ounce of water, to use as an injection; this, however, produced no effect: I did not continue it, for I was not particularly anxious about the function of the uterus. For, as the general health improved, I had not the least doubt but this organ would recover its ordinary function. When she went out of the hospital, I allowed her to take some of the medicines with her. In some cases, the bellows sound may be very easily produced, and in this patient, after the bellows sound had ceased for some time, she one day became agitated at something, palpitation of the heart came on, and I had an opportunity of hearing, for a minute or two, the bellows sound. Now, I believe, that this bellows sound was caused by a spasmodic action of the fibres of the heart, by which the quantity of blood sent from the ventricle into the aorta was propelled with a greater degree of jerking power than the aortic opening (though of a natural size) could immediately accommodate itself to, and hence the particles of blood would be thrown into a violent state of collision, and the vibration against the parietes would furnish the peculiar sound; it may also, probably, sometimes be caused by the blood being in a more watery state than usual, and in this way be more capable of yielding the bellows sound. This is an interesting case, and one probably you may often meet with in private practice. If you should, and you were to treat it as disease of the heart, by depletory measures, the patient might, for about twenty-four hours, perhaps, be a little relieved; but, in a short time afterwards, the symptoms would return with greater violence than before, and, in all probability, the patient be worse than ever. Now, though we meet with this nervous palpitation most frequently in hysterical females, still it often occurs too in males, more especially in those of sedentary habits, who become dyspeptic and hypochondriacal; and I think that lawyers are more subject to it than any other class of men, at all events I have met with it most frequently among them, and have found it yield to a similar plan of treatment, combined with a proper portion of exercise in the open air.

I wish, also, to draw your attention to a case of tabes mesenterica, which still remains in the hospital, and in which great good has been done by the remedial treatment. The subject of it is a little boy, six years of age, of strumous constitution. He was admitted into Luke's Ward on the 22d November, 1832. From his father's account, he had never been healthy, and during the two last years had become much worse. At one time he had severe scrofulous inflammation of the eyes, but when he came here they had perfectly recovered: there was great emaciation, the skin hot, harsh, dry, and shrivelled. His head, which is large, had latterly begun to suffer and he complained of pain in it, especially the forehead; appeared dull and heavy; slept badly, often starting in his sleep; chest very narrow; the abdomen greatly enlarged, particularly at the upper portion, feeling tense and knotty, not painful on pressure, but uneasy; there was no fluctuation, neither did it sound tympanitic on percussion; the tongue rather coated; bowels said to be open; appetite voracious; the glands on each side of the neck, and also in the right groin, much enlarged, but not painful; pulse 104, small and easily compressed. It appeared, that the enlargement of the superficial glands, together with that of the abdomen, as well as the emaciation and febrile symptoms, had for a length of time preceded the affection of the head, which had only lately supervened.

Now this disease has been differently named by different authors. Some have called it marasmus, others infantile remittent fever, others, again, tabes mesenterica, which I consider the best term, because it leads us at once to the mesenteric glands; and, from the glandular enlargement so evident in other parts, I had no doubt that the same existed in those of the mesentery.

His skin, as I before stated, was harsh and dry, and he never perspired; therefore I ordered him a warm bath daily, and to take ℥ss. of the liq. potassæ hydriodatis ter in die, in addition to which, I directed ℥ss. of our unguent. iodinæ, to be rubbed into the abdomen night and morning; put him on the milk diet of the hospital, with the addition of a small mutton-chop daily.

Half a drachm of our liq. potassæ hydriodatis contains about gr. iijss. of the hydriodate, and our unguentum iodinæ is made by rubbing a drachm of pure iodine with an ounce of lard.

On the 24th, finding the stools lumpy, his food appearing to be ill digested, and the evacuations not containing sufficient bile, I gave him, in addition to the other medicines, gr. iij. of the hydr. c. creta every night, and to quicken the action of the bowels ℥iij. of ol. ricini occasionally.

On the 28th, six days after his admission, the belly was less tumid, and I increased the liq. potassæ hydriodat. to ℥j. at each dose. Now, after he had continued the iodine, &c. a fortnight, the belly still decreasing, the stools became mucous and slightly tinged with blood; and, as he complained of some pain on pressure over the lower portion of the colon in the left iliac region, hirudines iv. were directed to be applied there. Three days after, as the intestine still continued irritable, the use of the iodine, both internally and externally, as well as the mercury, was suspended, and a few drops of croton oil were directed to be rubbed over the abdomen until a good crop of pustules

was produced; while, for the purpose of soothing the lining membrane of the canal, ʒiij. of mucilage of acacia were given every four hours.

By the 12th of January, the abdomen was much less tumid, and was considerably softer, but as there was still mucous streaked with blood in the stools, hirudines iij. were applied to the anus.

By the 18th, having still kept up a crop of pustules on the abdomen, the irritation of the bowels had entirely ceased; I, therefore, resumed the iodine, but confined myself to its external use, and in a different form, directing ʒss. of an ointment of the ioduret of lead to be rubbed into the enlarged glands of the neck and groin night and morning. This ointment is made in the proportion of ʒj. of the ioduret of lead to ℥j. of grease.

Since then, the improvement has been remarkably rapid, the belly is quite soft and only of the natural size; the bowels regular and the secretions perfectly healthy; his legs and arms, which were before like sticks covered with shrivelled parchment, are now as stout and firm, and the skin as soft and natural, as those of any ordinarily healthy child of the same age. He has no longer any pain of the head, and is lively and playful, in short, he has now no disease, excepting some enlargement of the glands of the neck and groin, which, however, are manifestly diminishing; after a time, the quantity of the ointment of the ioduret of lead was increased to ʒj. twice a day, and, within a few days, I have directed it to be used three times a day.

Now, in this case, I cannot but attribute the great improvement principally to the iodine, which is unquestionably a most powerful and excellent remedy, when there is merely simple enlargement of the mesenteric glands, unaccompanied by inflammation, and where the mucous membrane of the bowel is neither ulcerated nor inflamed; had I suspected that either of these conditions existed, I certainly should not have attempted the use of iodine, because it is a stimulant, and I have always found it increase irritation of the mucous membrane of every part of the alimentary canal, if given when that tissue was already irritable. Supposing, therefore, that, in this case, the enlargement of the mesenteric glands had taken place in consequence of irritation going on in the mucous membrane (no unfrequent cause, I believe), you will readily see, that the frequent repetition of a stimulant to the already irritable, or inflamed membrane, must directly aggravate it, and indirectly increase the disease of the gland.

But you will observe, that in this boy there was, in the first instance, no evidence of irritation, inflammation, or ulceration of the mucous membrane, but that, after taking the hydriodate of potass nearly three weeks, irritation, if not inflammation, did come on, and then I withdrew both the iodine and hydr. c. creta, the symptoms readily yielding to local depletion with counter-irritation. Had I persevered in the use of the iodine, at that time, I have not the least doubt but the irritation would have increased, and terminated most likely in ulceration of the membrane, while, at the same time, the state of the mesenteric glands would have been changed from that of simple enlargement to inflammation, ending in all probability in suppuration. If you recollect the condition of the glands, both in the neck and groin, you will remember there was neither redness, increased heat, nor pain; therefore I was satisfied that there was merely preternatural increase of the cellular tissue of those glands, and from the slight degree of uneasiness only, which was produced by pressure on the abdomen, I considered that the glands of the mesentery were only similarly affected.

I know there are many who would be disposed to trust to mercury in this affection; and although I gave a few doses of it myself, still it was not with the view of producing its specific effects on the system, because I am satisfied, in all cases of scrofula, in which mercury is given to such an extent as to place the system under its influence, that it is very injurious. My motive for giving it here was merely for the purpose of improving the secretions, which, as I before stated, were deficient in bile, and I selected the mildest preparation, lest I might irritate the mucous membrane; in short, I gave it as an alterative, which, by the by, is a very absurd term, because every medicine which is given with the intention of changing any existing condition is entitled to that designation.

Well then, my reason, upon resuming the iodine externally, for prescribing the ioduret of lead was, because I have found this compound excite absorption more quickly than the simple iodine ointment. I was first induced to use it in consequence of reading Lugol; and in twelve or fourteen cases in which I have tried it, it has appeared to me to excite the action of the absorbents more quickly than any other preparation.

I had a case only a few months ago in Jacob's Ward, which I believe many of you recollect, where there was very considerable enlargement of all the glands of the neck, occurring in a man of 26 years of age, and having been in that state a long time, but which entirely subsided in a few weeks under the inunction of this same preparation, though at the same time he took one grain of the hydriodate of potass with a third of a grain of iodine three times a day, and the man quitted the hospital perfectly well. I believe too that in this boy's case the warm bath did good; it removed that harshness and dryness of the skin which it had when he came here, and restored it to its natural state of exhalation; and knowing the great sympathy which exists between the external surface of the body and the internal organs, I have no doubt but it assisted in the cure.

The more aggravated forms, however, of

this disease, it must be admitted, too often baffle all our attempts at cure; and where it exists in conjunction with ulceration of the mucous membrane, I do not believe that any plan of treatment will succeed. I do not mean that simple ulceration of the mucous membrane may not be cured; but where it exists in combination with disease of the glands, the consequence of strumous taint, then I believe it will most frequently defy all treatment.

The other case, gentlemen, which I am anxious to call your attention to, is that which terminated fatally.

Stephen Roberts, ætat. 60, was admitted into Luke's Ward, Nov. 22. He was very pallid, greatly emaciated, and looked older than he really was. He stated that he was now a labourer, but had formerly driven one of the Portsmouth coaches, and no doubt had lived freely. It is quite sufficient to know that he had for a long time driven what is called a long stage-coach. Well, he said that he had only been ill six weeks, though he admitted he had been getting very thin for a long time. Six weeks then before his admission, he first found a difficulty in swallowing solids; this had increased so much, that at the time of his admission he could only swallow liquids, and them with great difficulty and effort. He described the difficulty as being situated at the root of the tongue, and that when he had succeeded in swallowing any solid matter, he had a feeling that it lodged behind the larynx and went no farther; had frequent vomiting, sometimes immediately after taking food, sometimes in from ten to twenty minutes after; had constant pain in the epigastric region, and especially just under the xiphoid cartilage, and felt as if there was a lodgment of the food at that part also, after it had passed the upper portion of the œsophagus; he frequently, after pain in the epigastrium, rejected a mouthful of tasteless fluid, though occasionally it was acid. There was considerable pain on pressure over the whole left hypochondrium; the muscles of the abdomen were tense, but when relaxed, not the slightest hardness or tumour could be felt. Complained of still greater pain when pressure was made under the ensiform cartilage; there was no feeling of heat either in the stomach or gullet. A probang, he said, had once or twice been passed before he came to the hospital, and on each occasion gave him much pain, particularly just at the cardiac orifice. He felt a desire for food, felt hungry; the tongue was morbidly clean, and glazed; his bowels, he said, were generally opened once a day, and the stools liquid; the pulse was 96, very strong, full, and bearing pressure. The state of the pulse led me to examine the heart, which I found beating over a large space; strong impulse of left ventricle, and the sound of the heart not much less than natural: I therefore requested Dr. Barker to write down in the case-book, "appears to have hypertrophy of left ventricle, with some dilatation."

This state of heart had escaped my recollection at the time of the post-mortem examination, and I merely mention it, to show that my diagnosis was correct.

When I first examined into his symptoms, I caused him to swallow some dry bread, washed down with some milk and water, which, after considerable effort, he accomplished; but, before I had finished my examination, he rejected a small portion by vomiting.

Such were the symptoms on his admission. From the difficulty of deglutition, it was probable there was stricture of the œsophagus; but after seeing him swallow, and recollecting the pain he said he experienced on the passage of the probang at the part corresponding with the termination of the œsophagus in the cardia, I was satisfied that if there was stricture it was there. From the vomiting too which took place so quickly after food, and from the tenderness on pressure in the left hypochondrium, as well as under the ensiform cartilage, I was convinced that the disease of the stomach itself was chiefly in the cardiac portion; and although at that time I expressed my belief to the gentlemen present, that the organ had undergone change of structure, still, from the absence of all tumour or hardness to be felt over the region of the stomach, I had no positive proof that such was the case, and therefore wrote on his ticket, "dysphagia, vomitus, gastritis chronica."

I did not order a bougie to be passed, because I felt certain that if he had stricture, still it was complicated with other disease, and because I happen to have seen it passed under similar circumstances, where ulceration also existed, on more than one occasion, not only without benefit, but aggravating the disease. Of course if I had been satisfied that all the symptoms arose from simple stricture of the œsophagus, I should not have hesitated to have passed one. I recollect an instance, some few years ago, of a case of stricture of the œsophagus, with considerable ulceration of the mucous membrane just above the stricture, and in which a bougie had been frequently passed, to the great increase of the patient's suffering at each time, and without benefit as regarded the power of deglutition; and upon the post-mortem examination, there was a circular opening through the coats of the œsophagus, which might, or might not, have been caused by the bougie, though I confess I strongly believe that it had.

Treatment.—With regard to the treatment of this case; it consisted in the application of leeches to the epigastrium, which, after being repeated four or five times, removed the tenderness; a blister was then applied, and kept open by savine cerate. The bowels were directed to be kept open by the daily injection of a common clyster, because I was unwilling to irritate the mucous membrane of the stomach by purgative medicines given by the mouth; and in order to relieve the vomiting, two minims of hydrocyanic acid were pre-

scribed to be taken every six hours, and which was ultimately increased to three minims. Now, at first, he expressed himself as being somewhat better, thought he could swallow better, and that he did not vomit quite so frequently; but this was only temporary, the vomiting returned just as before, and the difficulty of swallowing also. As he had hitherto taken the acid after each meal, he was now directed to take it an hour before, and for a time he thought he did not vomit so much. He objected strongly to the clyster, and as I found the bowels disposed to be confined, I gave him gr. v. of extr. coloc. comp. omni nocte. This griped him, and was changed for gr. v. of rhubarb daily. His diet consisted of milk, arrowroot, and sago; then he fancied the milk did not agree with him, so it was changed for beef-tea, for I was anxious he should get down a sufficient quantity of nourishment in the 24 hours, though I was fully aware that I could do no good in a case of such extensive organic disease. He quickly tired of each article of food in succession; eggs were substituted, which for a time he took; a small quantity of wine was then allowed, which, for a time, he took with pleasure; craved for porter, it was permitted, but he soon refused that, and ultimately, for many days, took nothing but four or five ounces of wine daily. Becoming gradually weaker and weaker, until he died quite exhausted on the 27th of last month, somewhat more than two months from his admission. I wished to endeavour to prolong his life by the injection of nutritive clysters every four or five hours, but no persuasion could induce him to consent.

The body was excessively emaciated. On examining the chest, there were many old, firm, organized adhesions on each side, connecting the pleura costalis with the pulmonary pleura; the lungs were generally quite healthy, with the exception of a very few minute hard tubercles, but not sufficient to impede their function at all. The pericardium was found closely adherent to the heart in every part, except just at the apex, where it was connected with it by several short bands of organized membrane, varying in length from the eighth to a quarter of an inch, and permitting it in that part to be raised from the heart just to the extent of the membranes; towards the base it was closely adherent, but, upon turning it back, we were enabled to extricate it, by using the same degree of force that you would to skin an eel; the left ventricle was considerably hypertrophied, and the cavity slightly dilated; the valves and lining membrane of the heart, natural. Most probably the inflammation of the pericardium took place at the same time with that of the pleura. I have no doubt but it was of many years' existence, and as he had no dyspnœa, nor any symptom indicative of disease of heart except the impulse, it proves to us that these cases do not always go on from bad to worse. The greater portion of the liver was healthy, but in different parts of it there were tolerably large depositions of firm white substance, offering a good specimen of the hard white tubercle of that organ. The kidneys themselves were healthy; but Mr. Nordblad found some deposition in each capsule, similar to that in the liver.

Well then, after this, we carefully removed the larynx and trachea, with the whole of the œsophagus, stomach, and spleen. You will see that there is considerable ossification of the posterior portion of the larynx, but no disease of the lining membrane (*showing diseased parts*). Still I am of opinion that the ossification will account for the sensation felt on swallowing, that the food lodged at the back of the larynx; the œsophagus, you observe, at its commencement, is perfectly free from disease; no stricture, no thickening: but within an inch or so, you perceive the mucous glands of that tube enlarged and prominent, and becoming more numerous and larger as we approach that portion just opposite the bronchial bifurcation, where you will see the tube is slightly narrowed, the mucous membrane thickened, and considerably increased deposition in the submucous cellular tissue; the bronchial glands at the back enlarged and indurated; just below, too, this thickening and narrowing of the œsophagus, you observe a large irregular ulcer; in some parts of it you see it is still bottomed by very thin portions of the mucous membrane; in others, that tissue is wholly destroyed. As we proceed then from this ulcer, the mucous membrane again appears, as it did above, tolerably healthy, with the exception of the enlargement of the mucous glands; the tube continues of its natural diameter, but still you will see there is some increased deposit in the cellular tissue; but as we approach the termination of the tube in the cardiac extremity, you see that it is here amazingly thickened and contracted; so contracted, that I was unable to introduce the point of my little finger. On cutting through this, you see that the walls are more than a third of an inch in thickness; the mucous membrane here, however, is not diseased; but this stricture at the cardiac orifice readily explains the pain he felt under the xiphoid cartilage, when the probang was passed, as well as his sensation that there was a lodgment of the food there. Then, as to the stomach itself, you see that this is amazingly contracted and indurated; when cut open, you see that it even then is not larger than the palm of my hand, while the coats are nearly half an inch in thickness; the mucous membrane is not much diseased; still you can discover three or four small ulcers as we approach the pyloric extremity; but the pylorus itself is the only part of the organ that is healthy and natural. The spleen, you observe, is not much larger than a full-sized walnut; still it appears healthy, though perhaps it cuts a little firmer than natural; the small size of this organ, taken in conjunction with the diminished

capacity of the stomach, may perhaps serve to show the connexion between the two.

Well then, as to the nature of this disease, I have very carefully examined it, and believe that it is not what is termed malignant disease; it appears to me to be that species of disease which Andral has so well described as hypertrophy of the submucous cellular tissue; that it is not a new tissue, but merely increase of density and thickness of the cellular membrane, which separates the mucous membrane from the muscular coat; and that this same hypertrophy has extended to the cellular tissue, interlacing the muscular fibres, and still further to that also which connects the muscular with the peritoneal coat. It would be commonly termed scirrhus, I believe; and if the word is used in its strict acceptation only, as implying hardness, then I admit that it is scirrhus; but if by scirrhus is meant that form of disease which, when ulceration takes place, is called cancer, then I am convinced it is a misapplication of terms. It is a form of disease most commonly met with in the pylorus, and it is somewhat curious, that in the case before us, that portion of the stomach is the only part free from it. This hypertrophy and induration is often met with in other parts of the alimentary canal, occasionally becoming cartilaginous, but this is rarely the case in the stomach.

You will find it stated by Andral, that he has only seen one example of its becoming so in that organ. Well then, how are we to account for this increased formation? I believe it to have been produced by the continued application of stimuli to the organ, by which the vessels of assimilation were excited to a greater degree of activity, and consequently to a greater deposition, than the vessels of disassimilation were equal to remove.

As regards the treatment in this particular case, none could have been of service; but in the early stage of the disease, if there was no ulceration, but merely this thickening and induration, I should think that iodine might be used with advantage.

You will remember, that notwithstanding the stomach was so thickened and hardened, it was never discoverable by the hand during life. Now this was explained at the post-mortem examination, for upon the abdomen being laid open, not a trace of stomach could be discerned; in fact, I had fixed my eye for some time on an inflated portion of transverse colon, thinking that was the stomach till I saw the longitudinal band; and it was not until the sternum and cartilages of the ribs had been removed, that we discovered the stomach drawn up high into the left hypochondrium under the arch of the ribs.

The time has elapsed, gentlemen; therefore I will defer the other case until the next time I have the pleasure of meeting you.

REMINISCENCES OF AN ARMY MEDICAL OFFICER.

PART I. CHAPTER XIII.

It may be said, that we have now reached a *halting* station, from whence it will be proper, as it is natural, to take a short *retrospective* view *. I was not even *then* in a condition to join the northern student in his *adieu* to another university (at which he had been labouring in vain for several years), to the effect that the D——l was welcome to the party which had profited most by the other. For my part, I should certainly, by uttering any such wish, have passed sentence upon myself, for the balance, I must say, was infinitely in my favour. I had, for no great cost, as to money, at no enormous labours, and under many pleasant circumstances (for Edinburgh is, in every sense, a very pleasant place), acquired a fair stock of professional knowledge, sufficient, I must even now say, to begin with; and I was also in possession of solid and substantial credentials.

Before, however,

"—— setting out, the thing to seek
Call'd *fortune*, which enriches wondrous few,"

I would dedicate a sentence to those good and able men, who were united in the object of putting myself and so many others in the right path. Doubtless they had no small share of their reward in contemplating the success of their labours, for most of them enjoyed ample opportunities of doing this. Their pecuniary emoluments were certainly fair and adequate; but, with one exception or so, I never knew that a mercenary act was ascribed to them. They treated their pupils with urbanity, and always took pleasure in explaining what had not been at first sufficiently clear, as well as in promoting, upon all occasions, their interests. In short, they seemed to live for them alone; they were at all times accessible, and I

* Or, as the quarter-master-general would say, "to make a *reconnoissance* to the rear."

never heard of an instance in which, when a *poor* student wanted a friend, (I may add *for whatever purpose*), he failed to find one in his teacher.

Upon some former occasions, I have, in these chapters, taken a slight liberty with some of the peculiarities as to manner, which were here and there too prominent to escape observation, and to some tastes (my own among others I fear) the absurd is an irresistible temptation to indulge, but these superficial foibles are next to nothing, when joined with more solid qualities, which throw the other to the back ground.

And, notwithstanding what fair pretext of allegation there may be, and the manner in which I myself have ventured to speak against the long established method of appointing to the majority of the professorships in the University of Edinburgh, there has seldom been committed a prominent blunder in making a choice. I cannot in conscience say, even now, at the distance of more than a quarter of a century of unremitting observation and familiarity with other academic institutions, both at home and abroad, that I observed *an inept* among them. We know very well that private interest with the Edinburgh magistracy, or Town Council, will outsway the pretensions of naked merit; and it is perfectly credible (knowing what this Council consists of), that an eye to the shop-till or the ledger may have weight in the choice of a candidate. Still no utterly incompetent person would aim at elevating himself to such a height; the inevitable dizziness, incident to a weak head, would throw him down, and utterly destroy him. Probably, also, when Solomon the Second (James VI. of Scotland, and afterwards James I. of England) built, or caused to be built, the original, dark, dull fabric (rendered all the more dingy, perhaps, by the gunpowder which blew his good-for-nothing father* into eternity), the magistracy was in different hands; indeed, as a Caledonian of tolerably distinct derivation*, I am aware that such *was* the case; that *then*, to be a magistrate of Edinburgh, was to be a member of the aristocracy; the Lord Provost, Baillies, &c. being often selected from a class or order which, since the removal of the Court to London, would conceive it an insult even *to be thought of* for filling any such situation.

My regret at the decease of the elder Monro, the two Duncans, Gregory, Rutherford, Barclay, Gordon, Burn†, Fyfe, and Murray, would be as unavailing as the woe of the author of the Minstrel, upon the lamentable occasion of the death of Dr. Gregory's illustrious father. To these it would be vain to tender thanks; but I may gratify my own feelings by recording, in this manner, a humble tribute to their worth and memory. I believe they almost all died in the course of nature‡, every one going down like a shock in his full season; but there remain some whom I would thus more directly address. To Doctors Home, Hope, Thomson, and Hamilton, who were my teachers:—to Alison, and Christison, who were my junior fellow-students:—and to some who were no more than what I was myself—a *contemporary*, in all senses of the word —I would respectfully say, "MACTATOTE VIRTUTE."

The illustrious names to which I have, as yet, made allusion—copious as the catalogue may appear—do not

* Henry Darnley, the husband of Queen Mary. The University stands where this catastrophe overtook him.

* See Chap. VII.

† I have not mentioned this excellent character till now. He was one of the surgeons (colleague of Russell) to the Royal Infirmary, and, with the other, Professor of Clinical Surgery. He was a good and skilful operator, and also an excellent man. I was one of the dressers under him.

‡ Dr. Duncan, sen. exceeded eighty at the time of his decease. Monro verged upon that age, if he did not absolutely attain to it. Gregory was cut off before there was any ostensible cause for his decay; but he was not of a long-lived family, as his admirable, and, in my opinion, unparalleled lectures on Gout might show. Rutherford, at the time of his death, was certainly advanced in years, but his constitution was impaired by diseases. Duncan, jun. and Gordon died prematurely.

exhaust the list of those whose prelections I attended. I had private opportunities of professional conference; and I became an instructor myself—*docendo discens.* I have ever found myself indefeasible in the pursuit of a proper and praiseworthy object, *hic aut ubique;* I have, consequently, left no measure, within my power, untried, to accomplish laudable undertakings; in most of these I have succeeded, though not, alas! for my own advantage.

PART I. CHAPTER XIV.

Having been, what our good fathers (though *father* I had lost at a period long ere this narrative commences) and friends designate *a very good boy*, who had minded his book, and also given a tone to his brother students, poor and uncountenanced as he was, a few weeks' relaxation were, after all this, judged indispensable, both for the sake of my health, and in order to send me into the busy world with fair, though hardly earned, advantages. In this my immediate superintendents did me no more than justice; and, if a young man were placed under my care, I should consider it my duty not to repress, but to elicit his lawful propensities; to point out to those who might possess the direction of his future prospects, and the appropriation of his fortune, the manner in which this most responsible matter ought to be undertaken, and, not only so, but persevered in, until the full accomplishment of the object might be realized.

I had, immediately after this grand display, an opportunity of visiting the domiciles of many elegant families, with whose sons I had formed a college acquaintance. The first thing I did (in a day or two after my graduation) was to cross over to the kingdom of Fyfe. Here I was most hospitably entertained in absolutely fascinating society, and the young gentlemen of many families were eager to show me the wonders and curiosities of their individually immediate neighbourhoods. I was rejoiced at these offers, and never failed to accept of them. There was nothing of the insincerity of *Cockney*-life about any thing of the kind. If I came even uninvited, I did not depart without an earnest and honest solicitation to return.

In this way, going from house to house, I saw all the natural curiosities of a very extensive district. I was then a superb *pedestrian*, and on *foot-back* every thing in the shape of a *male* young traveller proceeded. A horse would have been a disgrace to the rider—a carriage had never been seen. The only wheel vehicle, upon particular *pic nic* occasions, being a common farm cart, half filled with straw, and furnished with chairs, benches, &c. In this way one young lady was accustomed to visit her *(wealthy)* relatives, and I was up to the eyes and ears in love with her. I would have walked by the side of the horse with pleasure for her sake.

As a pedestrian I saw, with ineffable delight, some of the most celebrated spots identified with Scottish history. I had read, and even committed to memory, all Marmion and The Lady of the Lake, and now I trod the ground where these transactions had been (if as actually described they ever were) performed, and I was imaginatively a man of six or seven feet high, while absolutely no more than a stripling of five and a half. *Our*—for I cannot call them *my own*—adventures upon such excursions, I have prepared for the press in another quarter, whence, in due time, they will emanate. In the mean while my object is to *rouse* latent apathy, on the part of medical students; to bring them, as it were (and as not unfrequently has been the case with myself), to their post of duty at the sound of the gun, the bugle, the trumpet, or the drum. Do your duty, gentlemen, and you never will be censured; neglect it, and you will be, deservedly, tormented: but more of this hereafter.

In a few weeks, after the occurrences now recorded, I embarked on board a Leith smack, and arrived in London.

I was forthwith entered as a pupil in one of the leading schools; where *I learnt nothing.* Thus finishes Part I. of these "*Reminiscences.*" In Part II. I shall dip deep enough into the more appropriate subject.

HISTORY AND OBJECTS OF MEDICAL REFORM.

Reform is now lord of the ascendant in the thoughts of every one. High or low, rich and poor must now sink or swim together. The learned must (in pursuit of this paramount desideratum) go hand in hand with the ignorant, and the refined must march in the procession handcuffed with the vulgar. The scum of society must be ladled out with the dregs, and do their best or worst, as the case may be, for a livelihood.

Having indulged in this tirade, let us endeavour to qualify what has been uttered, by declaring that we are friends to *reform*, and are no way apprehensive of mischief in consequence thereof. It is in good and honest hands, and will be cultivated (we doubt not) until it becomes a great and flourishing tree.

Allusion is here, of course, made to *political* reform; but under that title is necessarily included reform in every ramification. But as the departments of government are respectively consigned to distinct and responsible officers, so must it be with the grand object which now engrosses the attention of the civilized world.

It is quite unnecessary to observe, that "reform" is no longer a word, a black spot upon a hand-bill, or a passage in an advertisement; no longer a dream, a chimera, a loose theory, or a distant expectation. We behold the day which many righteous men longed for, but which they were not permitted to see. They lived before their time; they contrived and arranged, but were not able to execute their mighty and benevolent purposes. Where are our Wilkses, Horne Tookes, Cartwrights, Benthams, Romillys, Beddoeses, and many others? Worn to death in unavailing efforts! They endeavoured, most meritoriously, to act upon mankind; but the human race, generally speaking, was not prepared to receive the impression. It is now in a condition more favourable, and may be rightly moulded by judicious means.

But we desire now to change the figure of speech, by saying that reform has sprung up in a sort of spontaneous manner. This event (for such, for the present, we must call it) confirmed all hesitating individuals, who wished well to the cause, in their honest purpose. The mantle had fallen; and it is no secret upon whose shoulders it had descended; but the recipients were *cowed* by seeing the want of success which had attended the efforts of their instructors, and stood aloof from a contention in which, though they might have sacrificed themselves, they had neither hope nor expectation of arriving at any advantageous issue.

We have employed the word *spontaneous*, but it must not be taken in its strict conventional meaning; for much of what might seem to have occurred without visible or positive agency may be referred to obvious and manifest causes.

And the first illustration, of a practical nature, which we shall adduce, is that which every countryman, visiting London, may behold with his corporeal eyes,—the actual state of the metropolis. The necessity of alterations and improvements had, almost for ages, been under consideration; but opportunities of carrying the laudable designs into effect were either rare in themselves, or, when they occurred, were thwarted by some obstacle or other. In the course of time, however, whole neighbourhoods of houses were overtaken by decay—individual tenements tumbled down—leases expired—crown property fell in—and the result has been the beautiful streets, squares, and parks, which now decorate the metropolis.

I was in company with the brother of the late Count Diebich (who crossed

the Balkan, and was all but conqueror of Constantinople), in the Regent's Park, and on the east side of it. The Count (for such he was) took out his *amadois,* flint and steel, struck a light, and asking me if it were permitted to smoke *in the precincts,* offered me a cheroot. He observed that he had seen all the capitals of Europe, and most of those in Asia; "but," said he, "I have seen nothing so fine as this *array of palaces;* pray who lives here, and who lives there?" "Tradesmen," I replied; "and it would be derogatory to a physician to live among them." The Count exclaimed, "Mon Dieu!—quelle nation le boutiquier habite le palais, qu'un Médicin me prise!"

The improvements now in progress, under the Bacon of the age, which are devised in *law,* are perhaps without precedent, more particularly if the spontaneous nature of their origin be adverted to. Under what compulsory influence was the Lord High Chancellor to divest himself (for in that quarter, we believe, it cannot be denied that he commenced) of much of his importance, and no small portion of hard-earned emolument? It was a generous measure of his own devising, and may God grant him full and consolatory success. Having begun with himself, no one could contest his right to extend his power and influence to other members of his profession, and all we shall at present say is—"*Macte virtute.*"

We have heard, in the days of our school-boy existence, concerning seven wonders of the world; and, as we advanced from these towards maturity, we have now and then been told of an eighth. This, however, seems, on all hands, to be received as apocryphal. Sometimes No. 8 has been a fine public building; at others, an individual of extraordinary talent. Thus we have had the *admirable,* or *wonderful,* Crichton, who, in the time of Elizabeth, or her successor, could do almost every thing, excepting walk upon the ceiling of a room. At other times the eighth wonder has been a *single* human being, with the face of a pig. We have seen it again (and that recently) in the shape of a human *duplicate,* exact in shape, size, and colour, and banded together by a *wonderful* contrivance of nature. Every man of research or observation has seen his *own* eighth wonder; but there is now one for general admiration, viz. the *reform of the church!!* Wonders, assuredly, will never cease, and instead of eight we may calculate upon eight thousand, at least, forthwith. And so on;—the spirit of innovation is spreading, and, if rightly applied, cannot fail to ameliorate the condition of society in all its ramifications.

But is there not a conspicuous and discreditable exception to the prevailing mode? What are *we,* the sons of Æsculapius, about? Where is *our* reform? Or are we sitting still, while our thumbs revolve upon each other; and are we hugging ourselves under the mistaken notion that *we* have no work of this kind to perform? It must be conceded that our task is peculiarly difficult; but the causes of this difficulty are obvious. In the first place, we are a very numerous body, and we are also a very heterogeneous one; then we are notorious for jealousy, and not untinctured with meanness. Those who may not be disposed to detraction, are wrapped up in fanciful pride, and keep aloof, under an absurd notion, that by such a line of conduct they consult their true dignity. Without cordial co-operation, or the interference of an authority, we can hope for little. The *authority* we have not; or, if there be a substitute, it is distributed among so many individuals, that the common adage is fully verified, which alludes to every body's business being nobody's. Besides this, the reform really wanting, is that precisely which these parties have long striven to the utmost to prevent. Here is one body corporate in the profession, which never made a secret of their purpose to apply to the legislature for more power to impede the march of liberality and

utility, until, indeed, there is every prospect of the tables being turned upon them in that influential quarter, and of their being even deprived of the strange authority which they have so long been tamely suffered to usurp.

The following questions present themselves at the opening of this important subject:—1. Does medicine stand in need of reform? 2. Has reform been attempted? in what way? and with what success? 3. To what quarter, or quarters, is the merit of any success due? 4. In what way should the matter be prosecuted?

ALIQUIS.

THE

London Medical & Surgical Journal.

Saturday, March 2, 1833.

ELECTION AT THE MIDDLESEX HOSPITAL.

We intend to keep the press open until the latest possible moment, to give to the profession an account of the result of the election for assistant-surgeon to the Middlesex Hospital. This election has been very justly considered as one of the most important events that has, for some time, occurred in our medical institutions. It has been universally supposed, that one of the distinguished surgeons to that hospital, has, for a considerable length of time, had such a paramount influence, as to have completely, in his own hands, the appointment of the surgeons. Every attempt has now been made to rescue this institution from the disgrace of being as completely shut against the profession as was the closest borough that existed before the charter of reform was obtained by the efforts of the people of England. A candidate, against whom no individual could raise the slightest objection, Mr. Tuson, who has before entered the field as a competitor for the vacant office, is the oldest pupil of the hospital, has received for his works from the Board a vote of thanks; he is acknowledged as one of the first lecturers on anatomy of the day, as a most indefatigable and zealous teacher, as a highly distinguished author on subjects of vital importance in surgery and in anatomy. His competitor is comparatively unknown to the public and to the profession, and his chief claim, as we have heard, is his relationship to Sir Charles Bell. An attempt has been made to oppose the influence which is said to have been employed; and Mr. Mayo has written a letter, which appeared in the public prints, but so far from its having excited that interest which one might naturally have expected and desired, it has induced, as we are told, some individuals to give their votes against Mr. Tuson.

The appointment to public hospitals in this country ought, most decidedly, never to be allowed to remain in the hands of any one individual, or in those of a party. Every man who has received a proper education should have all those advantages to which he is entitled; and the moment he finds an opportunity of offering his services to the public, he should be allowed to avail himself of the influence and assistance of his friends; but those who enjoy medical situations should

neither be permitted to turn them to their own advantage, nor to foist upon the institutions to which they are attached, their relations or friends. That Sir Charles Bell deserves the respect, the esteem, and the admiration of medical men, no one is more willing and anxious to admit than we are; and therefore do we feel the deeper regret, that it is so generally believed that he is exerting the influence which, from his abilities and character he has a right to enjoy, for the purpose of supporting his own nominee, in opposition to the well known and much respected gentleman who has offered himself. Feeling, as we did, some delicacy in writing upon the subject, previous to the election, lest we might be imagined to give a bias in favour of one candidate, we deem it our duty, as independent journalists, now that the election must be terminated, to protest, in the name of the profession, against the practice that has certainly existed, of handing down from relation to relation, or from instructor to a favourite pupil, the honourable offices which should be open to all.

ELECTION AT THE MARY-LE-BONE DISPENSARY.

THE consideration of the Mary-le-bone Dispensary election, the proceedings of which we related on a former occasion, also comes on. The Duke of Portland, as President, has called a meeting of the governors to consider whether the election of Dr. Holroyd was valid. We are decidedly of opinion that the whole proceedings were completely irregular, and that, as the day of election had been postponed by public advertisement, any choice made by the few Governors who did not read that advertisement, and attended at the Dispensary, could not be considered as proceeding from the whole of the body. Dr. Holroyd has, we understand, passed his first examination for the licentiateship of the College, and we believe has kept his terms at Cambridge, so that he may hereafter become entitled to hold the situation for which he is, by the laws of the Dispensary, ineligible; but of course Dr. Weatherhead is anxious, as having been the second on the day's poll, to be recognized as the successful candidate. As the whole proceedings were, however, irregular, we imagine that the Board of Directors must come to a resolution to appoint another election, when we believe many other candidates are likely to offer themselves — amongst whom, Dr. Clendenning and Dr. Dormier are named. Dr. Weatherhead has, however, protested in a circular to the governors against any new election, as he imagines it to be opposed to the laws of the Institution.

ELECTION FOR THE ROYAL MATERNITY CHARITY.

WE feel very much obliged to those gentlemen, who, in consequence of our observations last week, have so kindly assured us that they will exert their utmost endeavours to promote

the election of Dr. Ryan to the Royal Maternity Charity. We must, however, decline the observations that have been made against the other candidates, as it would be both invidious and ungenerous in us to say one word that might depreciate the opponents of our friend; although we will uphold, by every means in our power, one whom we consider the profession have every right to aid and assist.

MIDDLESEX HOSPITAL.

We have not yet learnt the result of the election. The number of individuals who personally gave their votes was nearly four hundred. About 180 proxies were delivered in—upwards of a hundred by Mr. Tuson; but as their validity was to be ascertained by the scrutators before the termination of the general ballot could be given, some time would necessarily elapse after its conclusion, before it could be declared on which candidate the choice of the governors had fallen.

MARY-LE-BONE GENERAL DISPENSARY.

Since our article on the subject of the election at this institution, the meeting to which we alluded as having been summoned by the Duke of Portland, has taken place. It was attended by some of the most influential inhabitants of the parish of Mary-le-Bone. The discussion was very animated, and it terminated in declaring the election of Dr. Holroyd, as we had anticipated, null and void.

It appeared during the discussion, that Dr. Holroyd, though not actually a member of the College of London, was entitled, by his education, to be a Fellow, but required some further time to be qualified for a place in that class. He had, however, undergone part of his examinations as a Licentiate. Dr. Weatherhead's friends moved a proposition, that he, in right of his being second on the poll, should be recognized as physician. This was, however, after some little time, withdrawn, and the original proposal was unanimously carried.

Thus the decision of the Vice-Chancellor has been set aside, and his opinion of the law that regulates charitable institutions, as to the election of their medical officers, does not appear likely to be countenanced by the Governors. No step was further taken as to filling up the vacancy, so that some time will most probably elapse before a second election will take place.

Review.

Memoir of the Life and Medical Opinions of John Armstrong, M.D.; to which is added, an Inquiry into the Facts connected with those Forms of Fever attributed to Malaria, or Marsh Effluvium. By Francis Boott, M.D. Vol. I. London. 1833. Baldwin and Cradock.

The medical profession must feel greatly indebted to Dr. Boott for placing on record an account of the life of Dr. Armstrong. The biography of that benevolent and judicious physician is replete with consolatory reflections for those who enter our profession without wealth or connexions, and whose only means of success are solid information, urbanity of manners, ardent hope, and long perseverance.

The subject of this memoir, like many of his illustrious predecessors, was born of humble and respectable parents*. His progress at school was at first slow, but soon became rapid; he showed a taste for poetry, and possessed an ardent desire to attain literary distinction. On leaving school, his inclination led him to prefer the medical profession to all other pursuits, and he was accordingly placed with Mr. Watson, a surgeon and apothecary at Monk Wearmouth. He next repaired to Edinburgh, and distinguished himself among his fellow students. When he obtained his degree, he returned to his native place, and his initiation into practice deserves mention. Dr. Boott describes it in the following words:—

"During the time of Dr. Armstrong's residence in Edinburgh, he had formed an intimacy with a young gentleman of Sunderland, about his own age, who had resorted to the University for general education. The father of this gentleman had laboured for a period of nearly two years under an occasional, and what had been considered anomalous, attack of diarrhœa, which had resisted all the skill of his medical advisers. On Dr. Armstrong's settling at Bishop Wearmouth, this person, who was affluent and much esteemed in the town, was earnestly solicited to consult the young physician, in whose talents the son had expressed an implicit confidence. After some persuasion, Dr. Armstrong was called in; and conceiving from the history of the case that it was one of overloaded bowels, and that the occasional diarrhœa was the effect of an irritation thus established, and an effort of nature to throw off the offending cause, he advised a mild course of laxatives to be steadily persevered in, until the motions were of a natural character. His advice was followed. In a day or two, Dr. Hamilton stopped at Sunderland on his way into England, and Dr. Armstrong, hearing of his arrival, waited on him to explain the case, earnestly soliciting him to see the patient. Dr. Hamilton firmly resisted the proposal, and gave as his reason that the practice recommended was undoubtedly correct, and that the issue of it would be fortunate. 'It will gain you credit,' he said; 'but if I am consulted, the recovery will be attributed to my counsel and longer experience, when all the merit in reality will be due to your own sagacity. You have ascertained the cause, and you see its effects, and have only to wait the sure operation of the only means of relief that can be recommended under the existing circumstances. Take the advice of an old man, and avoid consultations in all cases where you feel satisfied that you understand the nature of the malady, and that this at once suggests a simple and effectual remedy.'"

The success in this and other cases soon spread his fame in the vicinal counties, and he rapidly acquired eminence as a provincial physician. After a few years, he published his works on Typhus, Puerperal Fever, and Scar-

* He was born on the 8th of May, 1784, in the parish of Bishop Wearmouth, in the county of Durham, and died in the 46th year of his age.

latina; and was the first who accurately described the different stages of continued fevers. His work on typhus shed a new light on the disease, and was favourably received by the profession. His views on the pathology of puerperal fever were novel; they were generally adopted, though subsequent experience has since confirmed the truth of Professor Hamilton's opposition to them, and to those of Hey of Leeds, and of Gordon of Aberdeen, for all now admit that they were completely erroneous; as the researches of the French, German, and English pathologists have entirely confuted them. Dr. Armstrong obtained so much fame by his writings, and by his success as a practical physician, that he determined on settling in London. Like many other provincial physicians of sterling abilities and well-merited fame, he considered success was certain in modern Babylon. He soon discovered, however, that his idea was most erroneous. On settling in the metropolis, he speedily learned that the public knew him not, and to his utter astonishment no one employed him. This was to be expected; and let all those who contemplate settling in London take warning by it. A moment's reflection must convince every rational person of the truth of our statement. Let the practitioner, who has acquired fame in a remote situation, consider that, on coming to London, he is a stranger; that if he has introductions, they are few; that the whole practice of medicine is in the possession of a dozen individuals, whom fortune has favoured, and that the popular or fashionable favourite may be the veriest ass in Christendom, without a ray of genius; still no one else will do; every one must have him, and no one inquires why. Besides, the Londoners, most wise in their generation, have certain medical attendants, "friends to the family," frequently holding no legal testimonial, often ignorant of the first principles of science, very respectable men, keeping their carriages, and more unlikely to be dismissed than if they were the brightest ornaments of the profession These attendants have the entire confidence of families; they seldom allow consultations, and as to think of calling in a stranger, they would as soon think of it as of committing highway robbery. If any one is to be summoned, it is Dr. or Mr. A. B. C. the popular favourite, who attends our gracious sovereign, or his scullions, and who obtained his appointment by intrigue and political interest, and not by superior attainments. The unfortunate stranger is dismayed and dejected at the utter loneliness of his condition, and deplores the folly which urged him to settle in London, and to give up a certainty for an uncertainty. If proof were demanded of us in support of our position, we adduce it from the work before us. Dr. Boott informs us, that the subject of his memoir, on settling here, felt the extreme loneliness of his situation, and so much was he overpowered with the feeling, that he was uncared for and unknown, "that he more than once retired to a darkened room, and found relief in tears." Have we exaggerated after this? Have we too highly coloured the picture? But Armstrong did not remain long in obscurity; he speedily overcame all the frowns of fortune; he rose to eminence; but before he did so, he was subjected to the most harsh and unjust treatment. He was a stranger, an Edinburgh graduate, an interloper in, and within, seven miles of London, according to Act of Parliament. He was not a member, or rather a Fellow, of the Royal College of Physicians. Here Dr. Boott is silent; but such was the fact; he could not succeed in London without the College licence. He went before the College, and was—we grieve to indite it—REJECTED by men whose master he was, by those whose insignificance will be forgotten, when his talents will be cherished by an enlightened profession. Armstrong was rejected, though he had done more for medical science than the whole of his contemptible examiners.

Some of his examiners, *the Fellows*, had the unparalleled audacity to state, that they did not believe him the author of his avowed works; and which of them, we beg to inquire, has produced any thing a hundred thousandth part so good? Armstrong was not an unprincipled plagiarist; he was not a Shakesperian physician; he took human nature for his guide; he was not a humbug. He was naturally depressed by the extraordinary insult offered to him; but he saw, with the illustrious English poet, "whatever is, is best." So far from injuring him, the College did him the greatest service. The profession rallied round him; every one saw him in the light of an injured man; and every Englishman, who hated oppression and tyranny, determined to support him, and to call him in consultation. The baseness of the College was the foundation of his celebrity. Every medical man was his friend, and all succoured him; he rapidly attained the rank to which he was entitled. He, in a short time, had more practice than the whole of the Examiners who stamped *ignoramus* on his forehead. Here we must premise, that we did not know him or his Examiners, nor do we Dr. Boott; but we cannot help remarking upon the last-named gentleman's slurring over this affair. Dr. Armstrong, in spite of all opposition, became the most popular physician and the most esteemed lecturer of his day. His biographer shall describe his career:—

"Those members of the general profession who had once experienced the benefit of his counsel and assistance, could seldom be induced to recommend any other physician, so strongly impressed were they with the simplicity, the originality and success of his views and practice: and those families who had once had an opportunity of feeling the effects of the gentleness and delicacy of his manner, could think of no other adviser. There are many persons in and out of the profession who will admit the truth of these remarks, and who will confess that the loss of this eminent man appeared to them irreparable. He had the faculty of communicating his ideas to others, in the most easy and intelligible manner; and from the fertile resources of his own mind, of throwing light upon the most obscure and involved cases. Those difficulties which embarrassed common minds, seemed at once charmed away by the magic influence of his own; and his opinions were delivered with so much candour and perspicuity, that while others bowed before the superiority of his intelligence, they were instinctively impelled to place the fullest confidence in his skill and integrity, and to feel an irresistible affection for his character as the man blending with their admiration of his talents as the physician. His manners were simple almost to a fault, and were at first forbidding, from the absence of everything like an attempt at effect; but no sooner did he enter upon the consideration of a case, than it was apparent he was completely absorbed by it. His seeming reserve at once gave way to a visible feeling of deep and tender interest in the welfare of his patient, who felt satisfied that he was in the hands of an amiable and a sagacious man, to whom he might confidently entrust himself."

Another feature in the character of this illustrious physician deserves notice. He was a truly religious man. He said, in his last moments, "gloomy notions of religion are false; God is all mercy, justice, goodness, and benevolence. I am grateful to his goodness for keeping me so composed and happy."

We shall conclude our sketch of this excellent man and able physician in the words of his biographer:—

"In person, Dr. Armstrong was tall and thin. His manners were gentle and unpresuming, almost diffident in the presence of strangers, exclusively domestic and retired from the world, when the calls of duty did not require his intercourse with it. His nature was candid, confident, unsuspicious; his sensibilities lively and

acute; his tastes discriminating and refined. There was a simplicity and innocence of mind and disposition about him, which endeared him to all who knew him intimately, and which won for him especially the confidence and attachment of the young. When released from the cares of his profession, he entered with unmixed delight into the sports and occupations of his children, and appeared to derive as much liveliness of enjoyment from them as they did. It was entirely foreign to his nature to speak to them, for a moment, harshly. There seemed to him something essentially pure and angelic in childhood, as if its delicacy forbade reproof, even for its occasional waywardness. As a father, he was always most tender and indulgent; and when occasion required from him 'the sterner countenance of love,' it was an effort above his powers, and the tone of admonition melted into the soft persuasions of the most tender and confiding affection. I never knew any one who required or who sought so instinctively to promote the affections as he did; and nothing so soon overpowered his self-possession as the evidence of the confidence and the love he inspired in children. Their unreserved recourse to him at all times, and their frank appeals to his kindness, invariably brought tears to his eyes; and there was a smile upon his countenance, a struggling emotion in the tones of his voice as he addressed them, with his hand gently patting them on the head, which forms, in my memory, one of the most frequent and familiar of my recollections of him."

Reports of Societies.

WESTMINSTER MEDICAL SOCIETY.

Saturday, Feb. 23, 1833.

DR. SIGMOND in the Chair.

Evolution of the Human Ovum.

AFTER a short discussion between some of the members and the treasurer, who had presented his annual accounts to the members, agreeably to the regulations of the Society, Dr. Granville, being called upon by the President, rose and addressed the Society, pursuant to a notice entered on the Minute Book, respecting certain new anatomical facts and modifications of some, the commonly adopted, physiological notions connected with the evolution of the human ovum, its passage into the uterus, and connexion with that organ. Dr. Granville also alluded to the many diseases to which the ovum appears to be liable in utero, and concluded with some general remarks upon certain adventitious substances, which are thrown out by the uterus under particular circumstances. Dr. Granville illustrated every one of his propositions with some most exquisitely executed drawings of the human ovum, in all its stages of health and disease, from the pencil of Mr. J Perry, and cited the authority of several modern physiologists and anatomists of eminence in support of each proposition as he went along in his address, quoting, at times, their own words, or describing the work in which they were to be found. Allusion was likewise frequently made by the speaker to particular preparations or specimens of both healthy and morbid ova in the collections of the Royal College of Surgeons, Sir Charles Clarke, and his own; thus endeavouring to make conviction doubly strong where the least doubt could be entertained of the correctness of statements which went to overthrow the principal doctrines hitherto repeated from the lecturer's chair in anatomical and obstetrical schools, year after year, without, as it would appear, any thing more than mere conjecture, and the *prestige* of great names for their support. Dr. Granville's address, though of great length, was listened to with the greatest attention, and created that interest among the members present which any gentleman is sure of commanding among his brethren, who undertakes to discuss subjects of which (as we

are told is the case with Dr. Granville) he has made himself master, by investigation, inquiries, and experiments continued for many years, and assisted by very extensive opportunities in public and private practice.

The new propositions advanced by Dr. Granville may be briefly summed up in the following manner :—

1. The ovulum destined to be fecundated pre-exists in the ovarian vesicles (vesiculæ Graafianæ) in all the mammalia, the human species included.

2. The structure of the ovulum before fecundation is in every way similar to that of the ovum of oviparous animals, and that structure is modified in a similar manner in both *after* fecundation.

3. When the ovulum, after fecundation, reaches the uterus, it is surrounded by a *cortical membrane*, covering what has been called the shaggy chorion.

4. It is this cortical membrane that has puzzled former anatomists and physiologists, who devised a very improbable and unintelligible process, about a *decidua reflexa*, to account for the presence of this covering of the ovum, in addition to the transparent membrane.

5. There is no such thing as a *decidua reflexa*.

6. The chorion as well as the amnion are vascular membranes, susceptible of congestion, inflammation, and thickening. Dr. Granville exhibited drawings of human ova showing these morbid conditions.

7. The amnion is a secreting membrane.

8. From the moment that fecundation takes place, and until the ovulum has firmly established its hold on the maternal stock, the embryo lives and grows in virtue of its own inherent life-principle. The period of time here alluded to extends frequently, in the human species, to eight or ten days. This life-principle is so tenacious, that the fœtus has been known to live for several minutes, and even half an hour, after its expulsion from the womb, at the conclusion of the natural period of utero-gestation, provided the ovum was expelled in every way intact.

9. The filaments on the surface of the chorion are not all blood-vessels; some are suckers, or tenaculæ which serve to draw nutritious principles from the cortex. The others become real vessels in progress of time only, and after the formation of the blood, which invariably begins in the embryo itself—none being received from the mother.

10. The connexion of the embryo with the mother is not such as has hitherto been conjectured. There are no fewer than two screens between the termination of the blood-vessels of the uterus and those of the ovum. The former is the deciduous, or adventitious lining of the womb, which completely cuts off all direct and continuous communication of vessels, as Lauth of Strasburg, many years ago, ascertained and published. The other is the *membrana propria* of the placenta, which Dr. Granville himself has invariably found in all well-formed placentas, from the third to the ninth month, and which covers and envelops the cotyledons of the placenta, after the fashion of the arachnoid membrane in the brain. Dr. Granville stated, that for many years he has mentioned this fact in his lectures on midwifery, and frequently demonstrated it to some scientific pupils and medical men, by insufflation of air or injection of ink under the said membrane. The *membrana propria* is the remains of the *cortex ovi*.

The Society adjourned at half past ten to next Saturday, when the subject will be resumed.

MEDICO-BOTANICAL SOCIETY.

Tuesday, Feb. 26th, 1833.

Earl Stanhope, President, in the Chair.—After the usual routine of the business of the society, Mr. Burnett, the professor of botany, delivered an admirable lecture upon the lichens. He pointed out their structure, func-

tions, geographical distribution, their medicinal, dietetic, and economic uses, more especially with a view to illustrate their utility in distinguishing the officinal barks, and their qualities. Amongst many of these, he mentioned the rosella tinctoria as being the especial lichen of Dioscorides, and furnishing the purple of Amorgus, and the archil of modern commerce. He stated, that upwards of ninety tons are annually imported into this country, and so highly had it been valued, that it has sold at £1000 per ton, and that now it brings about £240.

He dwelt upon the citraria, or lichen islandicus, the Iceland moss, which, besides the medicinal properties, for which it has been so highly extolled, has been recommended to be added to flour to make bread; for if six pounds of lichen meal be added to fifty-nine pounds of flour, it produces one hundred and eleven pounds of good household bread, the six pounds giving an increase of thirty-two pounds and three-quarters. He stated, that the principal use, to which it was turned in this country, was in brewing, and in making ship biscuit.

When discussing the graphidacea, or scripture worts, he observed, that until the publication of Fee's work on the cryptogamic epiphytes of the officinal barks, the study of the opographes and their allies, seemed to be one rather of speculative amusement than of practical utility; but that it has been found that it is a subject worthy of the most serious and minute investigation, for these graphic plants have been now acknowledged to be, in very many instances, decided diagnostic marks, by which one tree may be distinguished from another; thus, the lecidea aurigera grows only on the brown bark, the tuberculosa on the yellow bark, the conspersa only upon the red bark; whilst the gassicurtia coccinea is never found upon any but the cinchona condaminea; and another singular and unvarying feature, which particularly marks the rhygomorphas and the hypochnis, is that they grow only on these barks when they have lost their active principles and are become worthless.

The learned professor gave some very happy illustrations of the utility of a knowledge of these almost unnoticed ornaments of nature to the painter and to the poet: had Gray drawn his ideas from nature, he never would have spoken of the "rude and moss-grown beech;" for on this tree lichens never are found. He concluded a very eloquent and scientific lecture amidst the loudly expressed approbation of a very crowded auditory, and received, as he richly deserved, some very delicate and well expressed compliments from the Noble President.

It was announced, that, at the next meeting, Mr. Everitt, the professor of chemistry, would demonstrate the modes of obtaining oxalic acid from vegetables, and describe its chemical qualities.

Hospital Reports.

ST. THOMAS'S HOSPITAL.

A Case of Acute Glanders occurring in the Human Subject—Death—Autopsy.

William Jackson, a short and rather robust man, aged 23, an ostler in the Old Kent Road, admitted Jan. 31st, into Edward's Ward, under the care of Dr. Williams. He stated that he had been ill for a fortnight; and he complained of a degree of tightness about his chest, also of pain in the right hypochondrium and loins, and experienced a constant sensation of lassitude and weariness. His countenance was dull; tongue coated with yellowish brown fur, except the tip and edges, which were slightly red; felt very thirsty; appetite pretty good; bowels open generally twice a-day; pulse 90, and bears moderate pressure. Skin, although rather moist, is of a higher temperature than natural. Perspires considerably in the night. He complains most of pain in the loins; and, upon inquiry, he

said, that three months since he was thrown from a horse, when he fell upon his back. Dr. Williams saw him: none of the symptoms appeared at this time particularly urgent, though evidently the man's appearance indicated disease. He was ordered two grains of the ipecacuanha powder every four hours, and put him upon a milk diet.

Feb. 1. All the symptoms remain much the same as yesterday; he perspired profusely during the night, and to-day complains of slight pain in the head. The man, at times, appears irrational: whether it is nature or not, I cannot say; but, upon asking him questions, sometimes he will answer them immediately, at others, an interval of four or five minutes will elapse, and then will give a very indirect answer. His tongue was still coated with the same kind of brown mucus, and very tremulous. He has frequently convulsive twitches of the whole body, and, for a few seconds afterwards, is in a constant state of tremor. To-day he complains of general weakness, and also of slight pains about his body and limbs: constant thirst. Before his admission, a blister was applied to the chest: this part has begun to slough, and discharges very unhealthy fœtid pus, in consequence of which a bread poultice was applied.

Since the 4th, he has continued to perspire, more or less, night and day. Has been delirious for the last two nights; complains of much pain about the forehead and upper part of the head. Countenance more dull than when admitted, but there is not any particular anxiety about it. Appetite remains tolerably good; bowels relaxed, open four or five times a-day, therefore the ipecacuanha was discontinued; urine copious, but natural. Still he complains of the pain in the right hypochondrium and loins, also of pains in his limbs. Pulse hard, full, and bears moderate pressure. Fifteen leeches were directed to be applied to the head.

On the 5th his diarrhœa continued; pain about the head and forehead less; delirium a little better. All the other symptoms remain the same; thirst and occasional convulsive motions of the body continue. Mr. Stone visited him this evening, and ordered tinct. kino ʒj. inf. catechu ʒ iss. post singulas sedes liquidas.

8. There has been a slight degree of delirium constantly present, and he still complains of pain in the head. The other symptoms appear to remain much the same as last report; perspiration copious in the night. The wound made by the blister before admission continues very unhealthy: the pus discharged from it is very fœtid; besides this, a peculiar unpleasant smell exudes from his body. Bowels more regular since he has taken the tincture of kino combined with the infusion of catechu.

10. He became so furious with delirium last evening, that he was obliged to be strapped to the bed. Perspiration continues, and has so much increased since yesterday, that the drops may be observed to run from his skin on the linen. He is frequently troubled with these convulsive or shaking movements of the frame, more especially the extremities. Bowels open three times to-day; does not complain of the least pain either with or without pressure, on the abdomen. For the last two or three days he has not complained of so much pain in the hypochondrium or loins, but greatly of aching pains in all his limbs. A swelling has now taken place at the joint of the forefinger of the left hand: the part is somewhat puffed, red, and glossy, having the exact appearance of rheumatism. Another tumour on the right ankle has also appeared. For the delirium, ten more leeches were applied to the temples.

11. Delirium somewhat subsided; at times he is perfectly rational, and will answer questions put to him; tongue dry, and still coated with fur. Complains of heat about the fauces, also of pain all over the body; violent thirst, and excessive perspiration con-

tinue; bowels open twice in the day. For the last two nights has slept very badly, being very restless, continually moving about, and appears extremely uneasy. The last ten leeches were applied to the right temple; the former leech bites got well as soon as usual, but these last inflamed; and this evening have begun to suppurate. Complains of pain all over his head; bowels become pretty regular; and, in consequence of the inflammatory appearance of the tumefactions on the hands and feet,

℞. *Magnesiæ sulph.* ℥ss;
Tinct. hyoscyami ℿxv;
Misturæ camphoræ ℥iss;
Fiat haustus 4ta quaque horâ sumend.
Milk diet continued.

12. Does not sleep; sweats profusely. Complains of severe pains in his limbs. Bowels open three times to-day: stools watery. The right temple, on which the leeches were applied, continues to suppurate, and has somewhat a gangrenous appearance: it discharges dark brown thick pus, which is fœtid. The right eyelid to-day has begun to swell, and appears much inflamed. The tumefaction on the left hand and on the right ankle remain much the same; pulse small and rather weak. He was ordered eight minims of the tinct. of opium, to be added to the other medicine; also allowed him four ounces of wine daily, and some sago; and, for the constant pain all over the head, directed a blister to be applied to the back of his neck.

Two o'clock P.M. The gangrenous suppuration continues to extend over the right temple, where the leeches were applied. The right eye has become entirely closed. Continues very restless, especially at night. The tremulous movements of his body have become much worse. The delirium continues, though comparatively slight. Still complains of the aching pains in his limbs being severe. Bowels relaxed.

Seven o'clock P.M. The sister now called Mr. Stone, the man being very delirious. The left eye had begun to swell, the right was completely closed, and another large tumefaction had now appeared in the centre of the forehead, about an inch and a half above the root of the nose; it was hard and red, having, in the centre of it, a slight bluish tint. There was also a thick yellowish discharge from the right nostril. Upon further examination, several small tumefactions were discovered to exist on the arms, and two or three large white fatty-looking pustules were found on the left side of his neck, with a slightly inflamed base, the circumference of which did not extend far from the base of the phlyctænaceous pustule. Upon the legs, too, three of the tumefactions were observed, one on the external malleolus of the right ankle, which has been spoken of before, the second about the centre of the tibia on the left leg, and a third on the right near the insertion of the ligamentum patellæ. His countenance had now so changed from the tumefaction of his eyes, that a person who had not seen the alteration take place, could scarcely know him. There was now excessive thirst: he called for cold drink every second; his pulse was sharp and quick, about 110 in a minute. His whole body appeared, at times, in constant agitation. Lips dry, with sordes on the teeth. The wine was increased from four ounces to six daily.

15. Nine o'clock A.M. The whole of the right temple is now gangrenous; a poultice was applied, and there was a great discharge of thick brown purulent fluid from this affected part. The other tumefaction, in the centre of the forehead, was of a mulberry appearance and soft; several more of these tumefactions had appeared about the scalp. Both eyes were completely closed by the swelling of the eye-lids, which were red, and presented a glossy appearance. As yet the discharge was confined to the right nostril; his lips continued dry, no phlyctænaceous pustules were on the face or nose, and his tongue, which he protruded on being asked, was covered with a number of yellowish-brown

dry flakes. Now, to allay his unquenchable thirst, he continually called for cold water. Upon asking him, in one of his rational moments, if he felt in any pain, he described a hot-burning sensation like fire in his throat, at the same time pointed with his fingers to the nostrils; several more of the phlyctænaceous pustules had now appeared, but were yet confined more to the left than the right side of the body, some of them upon his neck, others on the abdomen and chest; also several more of the tumefactions had appeared on his body as well as extremities; there was one on the centre of the left clavicle, another about the middle of the great pectoral muscle on the right side of the body, a third immediately below the os hyoides on the neck, besides several of them in different parts of his arms and legs, quite as many on the right side as upon the left: some of them were hard and red, others soft and of a purplish hue; a very offensive smell arose from his body; and to-day he has been talking a great deal about horses. Bowels continue relaxed; urine and fæces pass involuntarily; at times he appears delirious, and sweats profusely. Dr. Williams unfortunately was unable to come to the hospital, in consequence of suffering from a violent catarrh. Mr. Stone believing it to be glanders, requested Dr. Elliotson to visit him. He came to the same conclusion. The man stated, that a horse with the glanders, about three weeks before his admission, was brought to his master's stables; he said the animal was groomed by himself. He had a sore on the back of his hand, to which the mucus that escaped from the animal's nose was frequently applied, and he used to wipe it off with the sleeve of his coat; and at this time an imperfect cicatrix was found upon the back of his right hand, which was not quite healed. His pulse was sharp, hard, and frequent, 126.

On the 16th, the whole of his scalp had become very much tumefied, was nearly all over of a purplish hue and very soft; most of all the tumefactions about his body were of a mulberry appearance. The swelling of the integuments about the eyes appeared to have lost, in a great measure, the red and glossy appearance. On the right side of the nose, close to the inner canthus of the eye, a small purplish tumefaction has appeared, and to-day there has been a great discharge of brown, glutinous, purulent matter, from both nostrils; the gangrenous portion of the right temple continued extending, and discharged apparently the same kind of matter that came from the nostrils; great thirst continued; some more pustules appeared on the left side of the body. It was remarkable, that he became suddenly delirious, and as rapidly rational, and answered every question put to him. A great number of medical men came to visit him, and I believe all were perfectly satisfied as to the nature of his extraordinary disease. Some of the chloruret of sodium was directed to be sprinkled about his bed, to destroy the offensive smell that arose from his body; his pulse had now become soft and quick, and his urine was increased to eight ounces in the course of the day. Since yesterday the sweating has greatly decreased, his bowels continue relaxed, for which he was directed to take some of the compound chalk mixture, combined with a drachm of the tincture of kino after every loose motion; urine was copious: the nature of this secretion could not be ascertained, as he passed it involuntarily in bed. In the evening he became more irrational, kept calling out about the black horse, which he had previously told us, when rational, had the glanders; his nostrils continued to discharge a thick brown glutinous pus; pulse weaker; and his constitution appeared to be completely overpowered by this dreadful disease. The tumefaction on the right side of the nose has now extended nearly half an inch in length, and is in a gangrenous condition. He incessantly called for cold water for the last forty-eight hours without one

moment's rest; and, at three o'clock on Sunday morning, death terminated his sufferings. It was not until the Thursday evening that the nature of the disease was discovered; for before that time, it was mistaken for rheumatism, and on the following Sunday he expired.

Autopsy.—The disease having excited great interest amongst the medical men and students of the Borough, a great number collected to witness the necrotomic examination. The tumefactions about the scalp were first examined; each of them contained a thick brown glutinous pus, which being carefully removed with the handle of the scalpel, a number of small white circular tubercles was found to exist in the cellular membrane, exterior to the pericranium, but firmly attached to it, some parts of which being entirely destroyed, and the bone denuded. Some of these tubercles were hard and contained pus, whilst others had suppurated. The frontal sinuses and nostrils were next examined; they contained the same kind of brown glutinous pus, and similar white circular tubercles. There appeared more or less congestion of the brain, and in other respects it was healthy. Then examining the larynx and œsophagus, the latter was found perfectly healthy; but in the former, immediately below the ventricles, tubercles existed, one on each side, larger than any of those discovered in any other part: the one on the left side was in a state of suppuration, the other contained pus, and was entire; the remainder of the larynx was healthy. On removing the integuments from the anterior part of the neck and body, four patches of this brown glutinous pus was observed, one about the centre of the clavicle on the left side, another opposite the thyroid cartilage, and a third about the pectoral muscle on the right side. The pus being removed from the neck, a cluster of these small circular white tubercles, proportionate in the size and consistency to the extent and duration of the tumour, were found; a few also were discovered under the lymph, contained in the other tumefactions.

Upon examining the thorax, the substance of the lungs appeared healthy, but contained a quantity of frothy mucus; the other thoracic viscera were healthy. Then, on examining the abdomen, the whole of the intestinal canal was healthy, except within about an inch and half beyond the ileo-cæcal valve, where several small white prominences surrounded the colon for about three inches in length, having exactly the same appearance as the tubercles found in other parts of the body; the remainder of the colon, as well as the abdominal viscera, were healthy. The tumefactions on the arms and legs were next examined, and the same small white tubercles were discovered.

At the request of Dr. Elliotson, some of the discharge that came from the man's nose was sent to Mr. Youatt, the veterinary surgeon, for the purpose of inoculating a donkey. The result of which we shall notice in a subsequent number.

CORRESPONDENTS.

We regret very much we cannot give insertion to the letter of *Scotus*.

J. R. G.—The copies will be struck as requested, and duly forwarded through our respected agents.

H. R.—The errata are too trivial to need notice.

R.—The article did not appear in this Journal. The writer is evidently a novice.

Damages and Costs against Dr. Ryan for defending the honour and dignity of the Medical Profession nearly £800.

Amount of Subscriptions already received in aid of Dr. Ryan . . .	£205	18	0
P. Crampton, M.D. F.R.S., Surgeon-General to the Forces in Ireland	5	0	0
Andrew Arctic, Esq., a hater of quackery and corporate corruption	0	10	6
John Johnson, Esq. . . .	0	2	6

Erratum.—In Dr. Graves's lecture in our last, p. 105, formula for effervescing draughts, *for* syrupi zingiberis ℥iij. *read* ℥iij.

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 58. SATURDAY, MARCH 9, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXVI., DELIVERED DEC. 3, 1832.

Gentlemen,—At our last meeting I was explaining some of the contrivances in surgery for the stoppage of hæmorrhage, and, among these, I first alluded to the tourniquet. The instrument, which I happened then to bring with me, had no pad attached to it; but that which I now show you is complete, the pad being fixed to the band directly under the buckle. You first apply the pad exactly over the artery, and then buckle the band round the limb. As the pad is fixed to the band, it cannot shift its situation, as it might sometimes do, if it were a sliding one. Under the brass frame of this tourniquet, gentlemen, you perceive there is a piece of leather, designed to prevent the metal from hurting the integuments. It is under this part of the tourniquet that some practitioners put the pad, which is then, of course, directly under the handle or screw, by which the band is tightened, or loosened, as circumstances may require.

Gentlemen, the tourniquet deserves your particular consideration, as a means by which many lives are saved, and by which certain important operations are performed, with a degree of security quite unattainable without its assistance. Thus, in the performance of an amputation, if no preparatory measures were adopted for preventing loss of blood, the patient, by the time the soft parts had been all cut through, the bone sawn, and the vessels tied, would probably be dead from excessive and unrestrained bleeding. Hence, before we amputate, we put on the tourniquet, which prevents the patient from losing a dangerous quantity of blood during the operation. After the limb has been removed, we search for the principal artery or arteries, the situation of which we are taught by anatomy: thus, after amputating the thigh, we search for the femoral artery near the sartorius muscle, and, as soon as it is found, we take hold of it with a pair of forceps, and direct an assistant to tie it. The large open-mouthed arteries are generally taken hold of with a pair of arterial forceps, the instrument I now show you, and which is frequently made with a sliding button. This contrivance enables you to secure the artery without the aid of an assistant. You take hold of it with the forceps—keep the blades shut with the button—and then tie the vessel. But, gentlemen, you can seldom need a contrivance of this kind, because, supposing you have no professional assistant at hand, any bystander can tie the artery, or hold the forceps for you. If called to a person who had met with a wound of one of the great arteries of an extremity, I would first apply the tourniquet; but, if I had no tourniquet, and no professional assistant with me, I would make pressure, expose the bleeding part of the artery, seize it with the forceps, and direct any attendant to hold the instrument, while I proceeded to apply a ligature. Various kinds of double tenaculums shut with a spring, the design of which is to enable you to take up and tie arteries without an assistant. But, if you have only a common tenaculum with you, and no professional assistant, any bystander will suffice for holding the instrument, while you tie the artery. But it is only the large open-mouthed arteries, whose situation is determinate, that you can tie, while the tourniquet is so tightly applied as to command the hæmorrhage; and, when you have to secure smaller arteries, you should loosen the tourniquet, by which means you will discover their situation by the jet of blood from them. Thus, supposing you had just amputated the thigh, and secured the femoral artery, and, perhaps, the trunk of the profunda, you would relax the tourniquet for an instant, and then you would see jets of blood from other arteries re-

quiring to be tied. You seize one of the most considerable of them with a tenaculum, immediately tighten the tourniquet again, and the assistant ties the vessel. You now relax the instrument again, in order to discover the situation of another bleeding artery, of a size needing a ligature; you take it up, tighten the tourniquet again, and the vessel is tied. You proceed in this way, until all the arteries of magnitude are secured. You see, then, gentlemen, that the tourniquet is a most useful instrument in amputation. If a person were wounded in the arm or thigh, and the brachial or femoral artery injured, you would immediately apply the tourniquet; this would give you time to consider what plan it might be most advisable to pursue for the permanent stoppage of the bleeding, the patient being already rescued from immediate danger.

Important as the tourniquet is for stopping hæmorrhage, we could more conveniently dispense with it than with the *ligature;* because, with the knowledge which we now possess, and the instruction which the lessons of experience have afforded us, we should not have much difficulty in commanding the flow of blood either in amputations or accidental wounds of the limbs. We know that we could stop the bleeding by making pressure on the course of the artery by other means. Indeed, in certain amputations, this plan is even preferred to the use of the tourniquet. Then, if the case were a wound, and the vessel exposed, there would be one plain and effectual mode of immediately arresting the hæmorrhage, namely, the simple expedient of putting the end of a finger on the mouth of the bleeding artery. A surgeon should always retain his presence of mind, and not suffer himself to be confused and frightened by the sight of hæmorrhage; in this state, he might often let his patient die unassisted, while a little coolness would enable him to put in execution some simple but efficacious method, like that of placing the finger over the orifice of a large bleeding artery. Of all the inventions for the stoppage of bleeding, the ligature is certainly the most valuable one. The tourniquet is useful just for a short time, until more permanent measures can be taken; but, you cannot continue the application of the tourniquet for any length of time, because mortification would be the consequence of the interrupted state of the circulation. Then, gentlemen, you should recollect, that the tourniquet can only be applied to the limbs, and that it is of no service for wounded arteries of the head, neck, or trunk. On the other hand, ligatures can be used in all situations, where the vessels can be reached, and they have a permanent effect in arresting hæmorrhage. More reliance can be placed on the ligature, for the suppression of bleeding, than on any other invention whatever.

Ligatures were formerly composed of very fine cotton or thread, called *incle;* afterwards catgut was tried; and common brown sewing thread, or silk, is occasionally employed. These two latter substances answer well enough for ordinary purposes, and especially where the arteries are not above a certain size. One of the best kinds of ligature that can be employed, is what is called *dentist's silk*, a specimen of which I now have in my hand. Dentist's silk is particularly eligible for ligatures, for it is stronger, in proportion to its diameter, than the other articles which I have mentioned, and it is of an even round shape, the advantage of which property you will fully understand, when I have explained the principles upon which ligatures ought to be applied. Perhaps every one who hears me, knows very well what dentist's silk is, but I will hand a specimen of it to you in order that you may examine it. When incle is used, you put as many threads of it together as may be requisite for the size of the vessel, and the force with which the noose is to be tightened, and you then smear them with white wax. This kind of ligature is not so much used now as it was formerly; and it is softer and less firm than those composed of silk.

Gentlemen, I may next remark, that when an artery is encircled by a tight ligature of proper qualities, its internal and middle coats are as completely divided as if they had been cut with a knife, but the external coat itself continues entire. From a series of experiments, made by Dr. Jones, he arrived at the conclusion, that such division of the internal and middle coats of the artery had a principal share in bringing on the effusion of coagulating lymph within the vessel, and in producing the adhesive inflammation. Another purpose, answered by the ligature, is that of keeping its cut surfaces in contact, so that they may unite, as other newly divided surfaces do when kept in apposition. These principles are sufficiently well established; but Dr. Jones's zeal carried him further, for he supposed, that if the ligature did not completely divide the inner and middle coats of the artery, no closure of the vessel could be effected, and that secondary hæmorrhage would be sure to come on. Yet, he might have recollected, that a complete obliteration of an artery had frequently been accomplished by the mere pressure of a tumour, situated near it, and that an aneurism of the aorta had sometimes obliterated the carotid and subclavian arteries by its pressure. The application of a tourniquet, for four days, obliterated the radial artery of a horse, and the mere exposure of the tibial artery of a dog to the air for one hour, in an experiment performed by John Hunter himself, produced a similar effect; that is, it produced inflammation, followed by an effusion of coagulating lymph, by which the canal of the artery was rendered impervious. Every cure of an aneurism by simple compression is a proof, that arteries may be obliterated without any division of their middle and internal coats. Baron Dupuytren had a patient, whose thigh-bone had several exostoses upon it, one of which projected in such a manner

that it pressed upon the femoral artery, and consequently this and the popliteal artery were rendered impervious, they were both converted into fibrous cords. Even the loose application of a ligature has been known to lead to the obliteration of an artery; that is, the merely placing a ligature on an artery, without tightening it at all, has been known to bring on inflammation and an impervious state of the vessel. Of course, this is only what you might expect, when you know, that the simple exposure of an artery to the air has brought on the same changes. Gentlemen, I may next observe to you, that the introduction of a foreign body into an artery will cause its obliteration; for, when a needle or a pin was passed through an artery, in certain experiments undertaken by Mr. Benjamin Phillips, of London, and by Amussat and others at Paris, it appears, that the canal of the vessel was frequently rendered impervious. This fact led Mr. Phillips to hope that the plan might become eligible as a means of curing aneurism; but, I apprehend, that it will not answer for this purpose, because it is not very easy always to transfix an artery with a needle; you will often fail in doing so; and if you could always succeed, I should not expect the method to be so sure of producing the obliteration of the vessel, as the ligature is in the hands of a skilful surgeon.

But, gentlemen, though Dr. Jones might have been mistaken in supposing, that the division of the middle and internal coats of an artery was essential to the success of the ligature, the arguments he urged in support of the principle, that these coats ought to be divided, are extremely correct, and approved of by all the best surgeons of the present time, not only in England, but in every other part of Europe, and, I might say, the world; for, though M. Roux, the surgeon of La Charité, at Paris, undertook, after his visit to London some years ago, to defend the old principles and old practice, it appears, that, since that time, several of the best continental surgeons have declared themselves in favour of Dr. Jones's views, among whom I may mention Bréschet, Béclard, Larrey, Dupuytren, and, if I remember rightly, the late professor of surgery at Montpelier, Delpech, who unfortunately fell by the hands of an assassin a few weeks ago. In order to fulfil the principle of dividing the internal and muscular coats, it is necessary, gentlemen, that the ligature should be round, firm, and no thicker than is requisite to give it sufficient strength to admit of its being properly applied; nor should the surgeon be afraid of drawing it tight. I remember, that formerly, some surgeons were afraid of drawing the ligature firmly, lest they should cut the vessel completely through with it; but there is no ground for this apprehension: a broad flat ligature is particularly objectionable, because you can never get it to lie in an even circle round the artery, and thus an inequality is produced in the wound of the internal and middle coats, which are not so smoothly divided as they are by dentist's silk, and if any of the broad ligature extend above where the artery is closed by the adhesive inflammation, the point which it touches will be likely to ulcerate and slough, and thus secondary hæmorrhage be brought on. I believe, that, for every ten cases of secondary hæmorrhage, occurring formerly, you have not at the present day more than one; a fact proving that the principles, now observed in the use of ligatures, are founded on reason and truth. There can be no doubt, that the large clumsy form of the ligatures, in use thirty or forty years ago, was the cause of the loss of numerous lives from secondary hæmorrhage. The practice of applying broad ligatures is to be reprobated on another ground, namely, the increased quantity of extraneous matter which is thus brought into and left in the wound. The practice, indeed, is objectionable for many reasons; and, as Mr. John Bell remarked, at a period when the statement was an original and a truly valuable one, if large ligatures, waxed and stiff, be employed, they are too unpliable to admit of being drawn with sufficient tightness and regularity, and hence the artery sloughs before its canal is obliterated, the ligature becomes loose, and secondary hæmorrhage takes place. Then, gentlemen, unless the surgeon carefully avoid obliquity in the direction of the circle of the ligature, when he tightens it, hæmorrhage may come on almost immediately in consequence of the ligature having no secure hold of the vessel. As far as I can judge, secondary hæmorrhage has happened in many instances from the ligature not having been applied evenly round the artery, but obliquely; surgeons used to think that the ligature had slipped off from the mouth of the vessel; but they did not consider, that this could only arise either from its not having been tied tight enough, or from its having been put obliquely round the artery. If the ligature be tied tight enough, and not in an oblique circle, what will make it slip? The late Mr. Cline met with some examples, in which the ligature appeared to slip and become loose, almost as soon as it had been applied; hence, he proposed passing the ends of the ligature through the artery, beyond where it was tied; but plans of this kind really increase the danger of secondary hæmorrhage, because the more the artery is injured, and the greater the quantity of extraneous matter is in the wound, the greater is the probability of ulceration of the vessel. The views, which I have given of the cause of such slipping of the ligature, would not be in favour of the practice.

Gentlemen, when I explain the nature and treatment of aneurisms, I shall have an opportunity of adverting to other particulars, relative to the principles which ought to guide us in securing bleeding arteries; especially I shall notice certain interesting points brought to light by the investigations of John Bell, Jones, and Abernethy. You will then find, that these principles require to be attended to, as well in the tying of aneurismal arteries, as in the se-

curing of bleeding ones. They lead to an infinitely safer practice than that proposed by Scarpa, as a guard against secondary hæmorrhage; his expedients, in fact, only increase the danger. It is now an established maxim always to tie the artery as *separately* as possible, i. e. without including any other textures in the ligature; in particular, it is necessary to avoid including nerves and veins along with the artery: the tying of nerves not only produces great agony to the patient, but may cause paralysis of the parts to which their filaments are distributed. The tying of veins, too, is, at the present day, justly condemned, because veins are always much disposed to inflammation, and, when tied, the internal coat will sometimes inflame, and the inflammation, thus excited, will often spread extensively, and produce great and even fatal derangement in the system. Another reason for avoiding the inclusion of other textures in the ligature is, that when nerves, veins, or the sheath of the artery are tied along with it, the ligature is thereby prevented from acting properly on the vessel; it will not then completely divide its inner coats; and when the sheath or any muscular fibres are included, the ligature is a long time in separating: I have known instances, where the sheath of the femoral artery had been tied, of the ligature not coming away for six weeks, and even then it was necessary to remove it with the scissors. There is another important principle for observance is, that, though you should not include other textures in the ligature, you should tie the artery as close as possible to its surrounding connexions, from which its coats receive their own vessels, the *vasa vasorum*. The reason for this maxim is obvious; for if it were neglected, you could not expect any healing process to take place in the part to which the ligature had been applied, and whose tunics, being cut off from their natural supply of blood, would either ulcerate or slough, the ligature come away, and secondary hæmorrhage be the result. The rule, to which I am calling your attention, is therefore a very important one. Sometimes, in tying the femoral artery, a surgeon will perhaps expose it for an inch or two, and detach it to this extent from its surrounding connexions (a plan, which I by no means intend to advise); then, if he were to apply the ligature in the centre of this exposed part, sloughing would probably ensue. When the artery is detached in this way, it should be tied towards the upper and lower termination of its detached portion, so that the ligatures may be as near as possible to the natural connexions of the vessel. This principle has not been understood more than thirty years: the late Mr. Abernethy had considerable merit in the establishment of it, and, though he is not quite right on some other points connected with this subject, he was correct on this matter. Nor should Mr. John Bell's merit in elucidating this branch of surgery be forgotten on this occasion; for, I believe, that his observations on this subject preceded those of Abernethy. I have told you, gentlemen, that when the artery is large and open-mouthed, it is to be taken hold of with the forceps, but that when it is smaller, with the tenaculum, the use of which last instrument, however, is not adopted every where; for, on the continent, surgeons commonly take up both large and small arteries with a pair of forceps. I should here mention, that the observations upon the tying of the artery close to its natural connexions, without including any other textures in the ligature, apply of course only to vessels above a certain size, because the smaller arteries are not sufficiently distinct to admit of the plan; in fact, they cannot be tied separately; but even with respect to these smaller arteries, you ought to be careful to include no more of the surrounding textures in the ligature, than you can possibly help, so that there may be little suppuration and sloughing.

Supposing you have raised or drawn out the extremity of the vessel with the forceps or tenaculum, your next object is to put on the ligature; therefore, while an assistant holds the artery drawn out, you proceed to tie it. Some practitioners first make a noose, and put the tenaculum through it, before they take up the vessel; and having drawn the latter out, the noose is pushed down over its extremity and tightened. Others seize the artery first, and then put the ligature round it at once. In tightening the ligature, be careful to draw it horizontally, for otherwise the noose will rise up too much, and not grasp the end of the artery. In doing this, you should make pulleys of the ends of your thumbs, so as to draw the extremities of the ligature horizontally with them. Having made a knot, the question then is, what is to be done with the two extremities of the ligature? No good can result from leaving both ends of it in the wound; nay, there are strong objections against the plan; one extremity, indeed, must be left, because it serves for the removal of the noose, as soon as this is loosened; but, if it were not for this consideration, you might take them both away. If you leave both portions of the ligature, there will be more extraneous matter in the wound, and consequently a greater degree of inflammation and suppuration; for the presence of extraneous substances in a wound always causes these evils. Hence, all the best practitioners agree in cutting off one end of each ligature that is applied to an artery.

Gentlemen, the remarks I have hitherto delivered apply chiefly to such arteries exposed and entirely cut through, as on the surface of a stump after amputation; but, *punctured* arteries now require a few observations. I have been supposing the arteries to be exposed in such a wound as is produced by an amputation, where they can be taken up at once; but, if the artery be wounded by a puncture, you cannot get at it without employing the knife; and if this be not done, so

that the vessel may be tied, though the patient may not directly bleed to death, yet either an aneurism, or mortification, may follow, according to circumstances, or according to the extent of the effusion of blood in the cellular tissue and the interruption of the circulation. In the surgical treatment of a case of this description, the common maxim is, always to expose the bleeding part of the artery, and apply two ligatures, one above, and another below the aperture in the vessel. Here one ligature will not generally be sufficient; and if you were not to apply two in the manner described, no sooner had the single one been tightened, than bleeding would take place with nearly the same freedom as before, so freely would the blood pass through anastomosing branches into the artery beyond the ligature. It is, therefore, a maxim always to apply two ligatures to a punctured artery, one above, and the other below the wound in the vessel. I have said, that if you were not to act in this manner, the artery would still bleed; yet there are exceptions to this statement: thus, when hæmorrhage takes place from a large artery in consequence of ulceration and sloughing, that is, when the opening in the vessel has been preceded or caused by ulceration and sloughing, the canal of the artery, in the part below such ulcerated opening, will sometimes be partially obliterated, as I know from cases that have fallen under my own observation. Thus, when I was with the army in Holland, a soldier of the 44th regiment was brought to the hospital under my care, who had been shot in the ham; there was no bleeding at first; but, in about a week, a profuse hæmorrhage came on, and he would have died, if I had not tied the femoral artery. A ball had passed across the ham, and touched the popliteal artery, which gave way, six or eight days after the injury. Now, the reason why one ligature was sufficient in this case, no doubt, was, because the continuation of the artery below the wound had been more or less obliterated by the effusion of coagulating lymph; for there was immense inflammation of all the parts about the ham, and the swelling there was very considerable. In Mr. Hodgson's valuable work on the diseases of arteries, I think, you will find some observations confirming the views, which have now been offered. But, gentlemen, in a recent wound, like that inflicted by the thrust of a bayonet, one ligature applied above the injury of a considerable arterial trunk, will not suffice; here two ligatures must be employed, one above and the other below the aperture in the vessel. But when great inflammation, and several days have preceded the occurrence of bleeding, there is a chance, that the artery may be partly obliterated, and that one ligature may be sufficient. Of late years, the method has been introduced (though adopted only by a few surgeons) of cutting off both ends of the ligature, and leaving only the small knot of it in the wound. When you use dentist's silk, the knot thus left behind would be a mere atom, not weighing more than a half, or a quarter of a grain, and this would not generally produce inconvenience. The cases, in which I deem this practice advisable, are those in which there is no chance of the wound healing by the first intention, and where suppuration must occur, because the particle of ligature would then come away imperceptibly with the discharge; but, in other cases, its presence has sometimes led to troublesome abscesses; and, therefore, when the wound is not likely to suppurate much, it is best to leave one-half of the ligature attached to the vessel. On the other hand, when there must be a good deal of suppuration, the practice of cutting off both portions is advisable, because it lessens the quantity of extraneous matter in the wound. I will continue this subject, gentlemen, on Wednesday evening.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE XIII.

Pneumonic Diseases—Phlegmasia Dolens—New Pathology of the Nervous System—Extremities primarily affected as well as the Brain.

Gentlemen,—The extraordinary number and variety of pneumonic diseases which our hospital wards exhibit at present have a strong claim upon your attention, and furnish you with a very favourable opportunity of acquiring a knowledge of the stethoscope. You have (what is seldom met with) almost every form of lesion to which the tissue of the lungs is subject, grouped in such a manner as to give a desirable facility and convenience to your investigations, and enable you to survey, at a glance, the various features by which such lesions are characterized. We have a remarkable example of pneumo-thorax, which has been described by Dr. Haughton, in the Dublin Medical Journal for last June. This case he has lately sent to hospital, and I find that all the phenomena detailed by him are extremely well marked. Of phthisis, we have specimens in all its stages. We have instances of pneumonia and bronchitis in all their variety of phases; so that, in fact, there is not a single important stethoscopic sign, except ægophony, which cannot now be satisfactorily heard.

While passing through the wards, you recollect, I made some observation on a case of phlegmasia dolens coming on after delivery, and which I intend to treat by blistering, as you have seen me treat the swelled leg supervening on fever. The striking similarity of those two diseases, and the difference which exists between them, I have pointed out in a former lecture. It will be a matter of interest to study those diseases in connexion, and to ascertain whether the mode of treatment which

was adopted on the former occasion with so much success, will prove equally satisfactory in the present instance.

Some circumstances have, of late, drawn my attention to the study of nervous pathology; and, as this is an interesting subject, and one on which my opinions differ from some of those generally received, a few remarks on this point may not, perhaps, be unacceptable. The observations I am about to make will involve the consideration of the general principles suited to guide us in the difficult study of nervous affections, rather than the description of any particular disease. In considering the symptoms that accompany diseases of the nerves, pathologists have directed their attention almost exclusively to the nervous centres, and have looked on the brain, cerebellum, and spinal cord as the parts in which the causes of all nervous disorders reside, or in which they originate. If you examine the works of Rostan, Lallemand, Abercrombie, and all those who have written on diseases of the nervous system, you will find that their inquiries consist in searching after the causes of functional changes, either in the cerebrum, cerebellum, or spinal marrow, forgetting that these causes may be also resident in the nervous cords themselves, or their extremities, which I shall call their *circumferential parts*. When we recollect the manner in which the nervous system grows,—when we call to mind the fact, that in the development of that system, during the fœtal state, the nervous extremities and trunks are formed before any traces of the brain are discernible, we must at once allow it is by no means improbable that these parts may become incapable of discharging their functions in consequence of changes originating in themselves, and not proceeding from the nervous centres. In a word—may not the decay and withering of the nervous tree commence occasionally in its extreme branches? and may not a blighting influence affect the latter, while the main trunk remains sound and unharmed? In fact, gentlemen, pathologists have, with respect to diseases of the nervous system, committed an error precisely similar to that which was so long prevalent with regard to diseases of the vascular system; for it is only lately that, in estimating the forces which influence the circulation in diseased parts, they have begun to appreciate the preponderating influence of the capillary vessels, independently of the heart's action and the vis a tergo. It is only lately that they have recognised the important truth, that diseased vascular action may commence in circumference.

I am willing to allow, that in most cases of general paralysis, the affection of the muscular system is produced by disease of the nervous centres; yet, I think it is also evident, that an injury of the extremities, or circumferential parts of the nerves, may cause such a derangement of their functions as to give rise to paralysis. The reason why persons seek for the explanation of paralytic symptoms by referring them to the nervous centres rather than their peripheral extremities is, because this mode of inference accounts more satisfactorily for the simultaneous affection of many parts of the system. Thus, if one hemisphere of the brain, or both, or if the cerebellum or spinal cord be pressed or injured, those parts which have a nervous connexion with them will experience a corresponding derangement of function. But if a process of disordered action be set up in one part of the nervous extremities, and this passes on to another part, the translation seems very strange, and you cannot easily comprehend why paralysis of one peripheral part will produce the same disease in another. It has been asked, whether a local paralysis ever can, by spreading *towards the centre of the nervous system*, produce paralysis in another and a distant locality*. This is a question we are not in the habit of investigating; and I think it has never been sufficiently or satisfactorily examined, considering its importance in a practical point of view, and the new light which it may throw on many of the most obscure and perplexing forms of disease. I shall endeavour to prove, first, that paralysis (from whatsoever cause it may arise) affecting one portion of the circumferential extremities of the nerves, may also affect other portions of their extremities; secondly, that pain originating in one situation may produce a similar sensation in distant parts; and thirdly, that convulsions resulting from irritation in any part of the extremities of the nervous system may occasion a corresponding train of symptoms in other parts of the body. You perceive, gentlemen, that I have enumerated the three most remarkable symptoms resulting from disease of the nervous system, namely, paralysis, pain, and convulsions. If I succeed in showing that each of these may be produced by causes acting on the extremities of the nervous system at a distance from the part affected, the position I have advanced will be proved.

A few days ago, happening to call at a gentleman's house, I was told by a young lady that she had wounded the inside of the ring finger with a blunt needle, and that she found in it a considerable degree of numbness and loss of sensation. I said to her, "your little finger is also numb." You are aware those two fingers are supplied by the same branch of the ulnar nerve. Well, the little finger was really numb, as well as the finger next to it, which had been injured. What were the circumstances of the case in this instance? The side of the ring finger next to the little finger had been wounded with a blunt needle; the impression made on the nervous extremities

* This question has not been discussed; although the French pathologists, when speaking of what they term the *Paralysis of Innervation*, acknowledge the principle of paralysis existing independently of cerebral or spinal disease.

of the side of one finger produced numbness not only in that finger, but also the same cause operated backwards, or towards the centre, so as to affect the branch given off to supply the little finger, by the ulnar nerve, above the place of the wound. Here is an instance of a cause producing numbness of a particular branch of nerve, occasioning the same affection in another branch, and giving rise to phenomena identical with those which might arise from an injury of the main branch of the ulnar nerve. This is a plain fact. You have a case of precisely the same paralysis in a poor woman in this hospital, who has been complaining of rheumatic pains in various parts of her body. Before I had been struck by these and other instances of the same kind, I looked for the cause of this paralysis in the trunk; now I can understand how it may be in the periphery. You recollect I made some observations before on this subject, and mentioned that this numbness is frequently remarked in cases of gout and rheumatism, and that this occurrence in old persons often excites apprehensions of approaching paralysis. I have known old gentlemen so alarmed by it, as to seek medical advice; and, as this affection sometimes precedes gout, and sometimes accompanies rheumatic arthritis and phlegmasia dolens, it is a fact worthy of your attention, and one which I would recommend you to hold in memory, though I must confess I am not able to give any explanation of it. I have seen an attack of this peripheral paralysis in a gentleman of gouty habit, and heard him express a great deal of surprise when he was told by Mr. Kirby, his medical attendant, that it would usher in a fit of his complaint. This gentleman, however, after taking some warm stimulant medicine, went to bed, and next morning had a regular attack of gout. But, to return to our subject. If you make experiments by handling snow, or immersing your hands in freezing mixtures, or any fluid of very low temperature, you find that, after some time, the exposed parts lose first the power of sensation, and afterwards that of motion, and that in this way you produce a complete, though temporary, local paralysis. Of this fact you are all aware. But what bears more strongly on the subject in question is that the paralysis thus induced, is not merely confined to the hands and fingers, but also extends to other parts. You not only have the hands and fingers numb, but also lose, in a great degree, the power of flexion and extension, which is seated in the muscles of the fore-arm, and the motions of the wrist-joint are very imperfectly performed. Now all this time the muscles of the fore-arm, lying at a considerable depth, and covered by warm clothing, are protected from cold, and yet you perceive they partake in the paralytic affection of the exposed parts. Here, then, is another example of the same nature, corroborating our former position, that causes, producing loss of power in one part of the extremities of the nervous system, may have not merely a local influence, but also travel towards the centre and affect distant parts. Speaking of the influence of cold on the system, I have to observe, that, from the experiments made on this subject by Hunter, Edwards, Dr. Marshal Hall, and others, some instances of its effects seem very singular. One of the most remarkable is the production of paralysis, which, in most cases, is partial, but is sometimes very general without being followed by death. I remember the case of a dog, which lay buried in snow for two days, and was then taken out quite stiff and insensible, and thrown on a dunghill as if dead. After some time, the poor animal gave some symptoms of reanimation, and finally recovered. The influence of cold has been alluded to by Dr Abercrombie, and you will find, that he mentions a case of paraplegia, arising from paralysis brought on by cold, which lasted for eight months. A blast of cold air on one side of the face has been known to cause paralysis and distortion of several months' duration. Again, you have, as in the case of a man in this hospital, paralysis of the lower extremities from exposing the feet to cold and wet, while employed in baling out water in a quarry. You may have observed the same thing brought on by similar exposure in fishing, or snipe shooting, and that such causes gave rise to paralysis, not only in the parts subjected to the influences of diminished temperature and wet, but even extended to the nervous centres, so as to produce decided paraplegia. I was once myself exposed to a very intense degree of cold on board a ship, and observed that the sailors, who had been most exposed, suffered severely, and did not recover from its effects during the rest of our voyage. In fact, many months will often pass away before the symptoms, arising from cold, are removed, and you will find, that, in addition to the case of paraplegia from cold, which lasted eight months, Dr. Abercrombie mentions another, in which the paralysis was permanent.

One of the most remarkable examples of disease of the nervous system, commencing in the extremities, and having no connexion with lesions of the brain, or spinal marrow, was the curious *epidémie de Paris*, which occurred in the spring of 1828. Chomel has described this epidemic in the 9th Number of the Journal Hebdomadaire, and having witnessed it myself, in the months of July and August of the same year, I can bear testimony to the ability and accuracy of his description. It began (frequently in persons of good constitution) with sensations of pricking and severe pain in the integuments of the hands and feet, accompanied by so acute a degree of sensibility, that the patients could not bear those parts to be touched by the bed-clothes. After some time, a few days, or even a few hours, a diminution, or even abolition of sensation took place in the affected members, they became incapable of distinguishing the shape, texture, or temper-

ature of bodies, the power of motion declined, and finally they were observed to become altogether paralytic. The injury was not confined to the hands and feet alone, but advancing, with progressive pace, extended over the whole of both extremities. Persons lay in bed powerless and helpless, and continued in this state for weeks and even months. Every remedy, which the ingenuity of the French practitioners could suggest, was tried, and proved ineffectual. In some, the stomach and bowels were deranged, and this affection terminated in a bad state of health, and even in death; in others, the vital organs, cerebral, respiratory, and digestive, were in the same state as before their illness, and their appetites were good, but still they remained paralytics. At last, at some period of the disease, motion and sensation gradually returned, and a recovery generally took place, although, in some instances, the paralysis was very capricious, vanishing and again re-appearing. The French pathologists, you may be sure, searched anxiously, in the nervous centres, for the cause of this strange disorder, but could find none; there was no evident lesion, functional or organic, discoverable in the brain, cerebellum, or spinal marrow. Now, here is another remarkable instance of paralysis creeping from the extremities towards the centre; here is a paralysis affecting all parts of the extremities as completely as if it had its origin in the central parts of the nervous system, and can any one, with such palpable evidences before him, hesitate to believe, that paralysis, or even hemiplegia, without any lesion of the brain, or spinal cord, may arise from disease commencing and originating in the nervous extremities alone? I may observe, *en passant*, that where paralysis simultaneously attacks the arm and leg of the same side, it arises from an impression on the nervous centres, but this I think does not hold where the paralysis is creeping, as in the case before me, which has been taken by Mr. Hudson, and is at present under the care of my colleague, Dr. Stokes. "The patient, James Moore, was admitted on the 3d of March, labouring under paraplegia, which he attributed to cold and wet. About a month before admission, he first perceived a stiffness of the great toe of the right foot, afterwards numbness and coldness of the sole, and then of the leg as far as the knee, and dragging of the limb in walking. During the progression of the disease up along the thigh, it commenced in the left foot, and, after a few days, he experienced almost complete paralysis of sensation in the right lower extremity, and a lesser degree in the left, accompanied by so much diminution of the power of motion, as to render him unable to walk without support. About three weeks after the appearance of paralysis in the lower extremities, the little finger of the right hand was attacked with numbness, which passed successively to the rest, attended by some loss of the sense of touch, and power of grasping objects. He has also had retention of urine, and the bowels were obstinately constipated. There was no tenderness of any part of the spine. He had no pain in the head. His pupils were natural, mind unaffected, pulse, sleep, and appetite also natural." Here, gentlemen, you have an instance of what I would term creeping paralysis, having its origin evidently in an affection of the peripheral extremities of the nerves.

I may now observe, that I have brought forward instances to prove, that direct injury of one part of the nervous system may produce paralysis in another and distant part; but have we not also other instances? certain substances, which produce morbid effects on the nervous system, are found to be attended by results analogous to those described. You are all aware that lead frequently brings on paralysis; that this is caused by the local application of lead, and that the effect of the local application extends chiefly to those parts to which the lead is directly applied. Thus, in painter's colic, the paralysis almost invariably begins in the hand and wrists, preceded, I will allow, in many cases, by symptoms of poisoning of the system, as shown by the tormina and affection of the intestinal canal. Dr. Bright has remarked, that, in painter's colic, the spine is frequently tender in the cervical region, when the upper, and in the lumbar, when the lower, extremities are affected. It has been remarked, that spinal tenderness is often the consequence of disease of the extremities, and not the cause; so, I think, it is in painter's colic. We found, in this hospital, a great number of cases, in which there was paralysis of the upper extremities without any spinal tenderness in the commencement; but when the disease had lasted for some time, the affection seemed to spread towards the spinal column. When this took place, it generally caused an aggravation of the disease; but it is no less true, that we had many instances where it could not be discovered; and you are not to think that this irritation of the spinal cord should always precede the paralytic affection of the wrist and hand, which is observed in painter's colic. You have seen, in this hospital, two cases of spinal tenderness supervening on peritonitis and acute gastric irritation, and, in fact, in every disease in which the nervous extremities, which are distributed to the parietes, or viscera of the abdomen, you find almost invariably that, after some time, there will be pain and tenderness of the spinal column as the consequence of those diseases. On the other hand, I grant, that as soon as the spine becomes affected, whether the disease be tympanitis, peritonitis, or that swelling of the belly to which the name of hysterical meteorism is applied, there will be certainly an aggravation of the existing symptoms.

You perceive this conducts us to the solution of the question, how far, in the treatment of chronic complaints, are we to consider spinal neuralgia as the cause or consequence of the disease. Sometimes those troublesome hyste-

rical affections, which you are called on to treat, are preceded by spinal neuralgia, but in many well-marked cases it is totally absent. I wish to call your attention to this subject, because medical men have been biassed, to a very considerable extent, by the statements made by Mr. Teale, and others, respecting the treatment of various anomalous affections, supposed to be connected with irritation in the spinal column. Every female who complains of any kind of abdominal or pectoral symptoms of an obscure nature is examined all over the spine, and if the slightest tenderness be detected, according to the practice generally pursued, you are to leech and blister her back, or to apply tartar emetic ointment. I think I have seen injurious effects from this plan of treatment. Inquire carefully into the history of the case, and ascertain, if possible, whether it was the central or circumferential parts which were first affected, for, in the latter case, you can promise yourselves less from any local application to the spine than in the former; whereas, in those instances where the disease has travelled from the centre to the circumference, you may hope for success from local applications. It is important to recollect, gentlemen, that violent enteritic affections may produce paralysis of the lower extremities. In the case of a young gentleman, whose disease arose from obstruction in consequence of eating nuts, and to which I formerly adverted, violent enteritis and peritonitis arose, and he had two relapses; from these he recovered with difficulty, but they left him paralytic of his lower extremities. After two months, the paralysis speedily yielded to the application of stimulating liniments. This case Mr. Kirby and Mr. Cusack saw. In another remarkable case, concerning which I was consulted by Dr. Ireland, a frequently recurring vomiting was in the end followed by a paralysis of the lower extremities; but as I mean to publish the particulars of this case, I shall say no more of it at present.

What I wish to impress upon your attention is, that pain, numbness, spasm, and loss of power from an affection of the circumferential parts of the nerves, may commence in those extremities, and be propagated towards the centre, so as to be finally confounded with diseases originating in the central parts themselves. You have seen in the patient, James Moore, hemiplegia, which I am convinced had its origin in the extremities. Have you not also seen, in the cases of peritonitis, gastric irritation, and painter's colic, a consecutive affection of the spine? Indeed, it frequently happens, that paralysis, commencing in the nervous extremities, may not only induce disease of the spine, but in time bring on disease of the brain itself. It does not follow that a fatal paralysis affecting the brain should commence in that organ. In Dr. Woolaston's case, are we to account for the occasional partial amaurosis under which he laboured, for such a length of time before his death, by referring it to disease of the brain? In consequence of a temporary paralysis of one half of the retina of each side, he saw but the halves of objects, and from this he argued, that there was a semi-decussation of the optic nerves. This happened several times, but never remained for any length of time, and I do not think that at that period it was proved that any disease existed in the brain *. Some time back, I saw, with Dr. Brereton, a very singular example of defective vision in a wealthy bookseller, who had lost the sight of one eye from accident. This gentleman, one day, in going up a hill near Clonskeigh, remarked, that where there was but one man, he saw two men, but divided at the middle, as if they were cut by a vertical line into two halves. I questioned him closely on the occurrence, thinking it to be the effect of imagination, but he said this was not the cause, and that he was perfectly convinced he saw double. There is but one way of accounting for this optical delusion. It is well known that when vision is much impaired, the power of seeing light often remains, when the eye cannot distinguish any particular object. A partial and temporary paralysis of the retina, in a vertical section, may have given rise to an apparent white line, bisecting the object vertically. Again; in the case of a fine young lady, which I saw along with Dr. Beatty, amaurosis, acute, sudden, and complete, came on without any headache or cerebral symptoms being complained of. When called to see her, I found her walking about the drawing-room, quite cheerful, and enjoying a good appetite, but perfectly blind. After the lapse of some days, these symptoms were followed by profound coma and death. But there are other instances more decidedly corroborative of the positions I have laid down. You all know that if a man gets a blow or cut on the forehead, which wounds or divides the frontal nerve, not only the parts which that nerve supplies become paralytic, but that also the diseased impression, thus produced, spreads towards the centre, affects those nerves which anastomose with the frontal, and, by means of the communication formed between the nerves of the eye-ball, through the lenticular ganglion, deranges the functions of the optic nerve and causes amaurosis. Formerly I was in the habit of giving a different account of this, and thought, that because, in some of the lower classes of animals, as for instance the mole, the fifth nerve, from which the frontal is derived, is the true nerve of vision, those animals having no optic nerve †, I had found an

* I do not lay much stress on this case, as the organic disease found after death was so considerable. In connexion with the next, however, it is interesting.

† A curious instance of the total absence, or imperfection, of a pair of nerves is related by the Rev. Mr. Bree, in the Magazine of Natural History:—"A white cat, of the Per-

analogy capable of giving an explanation of the fact, that injury of the frontal nerve is sometimes followed by blindness. But this, I am of opinion, cannot be the true mode of accounting for the amaurosis, as I can now readily conceive how injury of any other nerve, having communication with the optic, may spread inwards, and finally derange or destroy its functions.

You will frequently observe persons in the decline of life, who otherwise enjoy tolerable health, exhibiting, as it were, a slight shade of paralytic affection of the system, fitful and capricious in its appearance and duration, sometimes remarked on every instance of corporeal exertion, sometimes scarcely at all, presenting at one time a reiteration of successive attacks, and at another time being totally absent for months. Some cases of this kind I have studied for months, and one in particular for years. The gentleman, who was the subject of the latter, complained of barely perceptible weakness, and dragging of one of his legs whenever he was tired; but, if he took a glass of wine on coming home, he got quite well, and these symptoms disappeared. Matters went on in this way for a considerable length of time, the paralysis being at one time in one leg and then in the other. At last he got a paralytic stroke, which lasted for some time and then subsided. He next got confirmed paralysis of one side, and, soon after this, was carried off by an attack on the brain. You will often find persons similarly affected with paralytic attacks of the extremities; at first slight and transient, but afterwards increasing in vigour and intensity, until they terminate in ramollissement or effusion. Formerly I was of opinion, that this fugitive and shifting paralysis depended upon local congestion in the brain, and others have attributed it to effusion, but this is not the fact. Persons may die after having laboured for some time under hemiplegia, and yet no trace of lesion of the cerebral mass could be detected; and why? Because many of them are cases of this creeping paralysis, commencing in the peripheral extremities, and travelling gradually towards the centres of the nervous system.

It is only on the principle of there being such a disease as local paralysis not induced by lesions of the nervous centres, that we explain the origin and nature of such cases as paralysis of the deltoid, concerning which Dr. Elliotson has made so many interesting observations. *It is by reference to this hypothesis alone, that we can account for the following cases,* detailed by Dr. Cooke, in his admirable work on palsy:—

"I have lately had an opportunity of seeing a case of anomalous hemiplegia attended by circumstances not less extraordinary than those above described. An officer of high rank in the army, who is now about sixty years of age, was, in the year 1795, affected with a diminution of power in the right hand. This complaint increased, notwithstanding a variety of modes of treatment, till the year 1800; when, after a course of mercury, recommended by Mr. Cline, its further progress was stopped, since which time the disease has remained stationary. The peculiar circumstances of this case are the following. The muscles of the left arm, from the shoulder to the elbow, are much wasted, and greatly diminished in power; while the muscles of the fore-arm are not at all lessened in size, and but little in power. The state of the right side is just the reverse, the muscles of the upper arm being of their natural size, and possessing their full power; whilst those of the fore-arm are very much wasted, and their motion, especially that of the fingers, is almost entirely abolished. In all other respects, this gentleman appears to be perfectly well. No cause for this disease can be assigned, nor did any method of treatment afford the smallest relief, till the mercurial course was adopted, when the progress of the disorder was arrested in the year above-mentioned. Since that time no attempts to remove the complaint have been made, yet it does not increase.

"In a late publication by Mons. Keratry, a case of general palsy is related, the circumstances of which are very extraordinary. This case is adduced with a view of showing how little residue of animal existence is sufficient for the preservation of the intelligent being. There is now living, he says, in D'Isle et Vilaine, a person, who, after having been blind for ten years, lost also the sense of hearing, and, in a little time afterwards, became almost universally paralytic. He was entirely deprived of the use of his arms, legs, thighs, and of the whole exterior surface of the body, with the exception of a part of the face; but the power of speech, and the functions of respiration, circulation, and digestion remained. Under these deplorable circumstances, however, he is not, says Mons. Keratry, wholly without consolation, for a sort of intercourse is preserved with his family and friends, by means of characters traced on that part which still retains its sensibility, and in this state of unexampled misery, he retains, in some degree, the distinguishing character of man—intelligence*."

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sian breed, was kept in his family as a favourite. The animal was a female, quite white and perfectly deaf. She produced, at various times, many litters of kittens, of which some were quite white, others more or less mottled, tabby, &c. &c. But the extraordinary circumstance is, that of the offspring produced at one and the same birth, such as were like the mother, entirely white, were, like her, invariably deaf; while those that had the least speck of colour on their fur, as invariably possessed the usual faculty of hearing."

* "Inductions Morales et Physiologiques, p. 375."

I saw, the other day, with Mr. Crampton, a case of paralysis, in which the mouth was drawn upwards and to one side, accompanied by ptosis of the upper eyelid of the same side, so as to produce very great distortion. Mr. Crampton, with his usual decision, said, "put a blister here and there, here and then there, and you set things to rights," marking out, at the same time, a space over each of the principal trunks of the fifth nerve, which are expanded over the side of the face. It happened exactly as he predicted; the first blister we applied pulled up the eyelid, the next partially rectified the distortion of the mouth, and the third made it quite straight. Now, the phenomena of this case and its treatment cannot be explained by supposing the paralysis to arise from disease of the brain; but if, on the other hand, you consider the disease as originating in the nervous extremities themselves, how easy will it be to account for the mode of operation.

So far of paralysis, gentlemen, for I perceive our time has expired. I trust, however, that I have brought forward a sufficient number of examples in proof of the position with which I set out, that diseases may commence in the circumferential parts of the nervous system, and may extend not only to other parts of the branches or extremities, but even travel towards the centre, and finally affect the brain or spinal cord. The consideration of this subject opens a vast field for investigation, and may, perhaps, form an additional clue to discovery of the nature and treatment of a most obscure and difficult class of diseases. I will resume this subject on Saturday.

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

At St. Thomas's Hospital, Session 1833.

Epilepsy—Bronchitis—Simulated Paralysis —Real Paralysis—Use of Strychnine— Chorea—Chronic Gastritis.

Gentlemen,—During the last week there have been three cases discharged from the hospital, and there has been one death. Of the cases discharged, I shall first speak of Charles Molloy, a boy ætat. 12, who was admitted last October into Luke's Ward, suffering from epilepsy, which he stated he had been subject to for several years, and that the fits came on soon after a blow he received on the occiput, where he also complained of pain. At first his mother stated the paroxysms came on but seldom, but for the last twelve months they have greatly increased in frequency, occurring as often as two or three times a week, and regularly every Sunday. Now, finding that he always complained of more or less pain on the back of his head, I determined to treat him antiphlogistically, because I believe the epilepsy arose from some congestion, or chronic inflammatory action, going on in the brain or membranes. I therefore directed the head to be shaved, leeches were frequently applied, blisters applied to the occiput, and cold lotion to the head, and I gave him some of the ioduret of mercury, with a view of trying the effect of this remedy on the disease. From this treatment he derived benefit, so far as regards the frequency of the fits, and the pain in the head subsided; instead of having two or three fits in a week, he would continue three, four, or five weeks without having any. His mouth became slightly affected by the mercury, and latterly he had continued quite free from pain in the head. However, about three weeks ago he had a fit. I now tried the effect of terror as a means of keeping off the paroxysms, and in his presence told the sister to watch, and should he have a fit, directed a seton to be put into the nape of the neck. Whether this had any effect upon him or not I cannot say; a week or two elapsed without a recurrence of the paroxysm. He was a boy we had not the least control over, and indeed one of the fits came on immediately after a battle he had fought with another boy in the hospital. Besides, he would frequently run to see his mother, who lived at Bethnal Green, without leave, and stay five or six hours before he returned again: this, however, I took no notice of, because I was anxious to see the result of the case. On last Wednesday or Thursday (I forget which) he had a fit, and having the dread of the seton before his eyes, he ran off directly to his mother, told her what he was afraid would happen, and accordingly she came here on Saturday, during the time I was in the ward, and said, she would not sanction, or by any means allow, such cruel treatment, consequently I was obliged to discharge him. This, gentlemen, is one of many cases of epilepsy which have left this hospital under my care relieved, but not cured, and I am afraid most of the other cases that are said to be cured are the same.

The next was a case of bronchitis, which was admitted on the 25th of July, and occurred in Wm. Harvey, a labourer, of strong, robust appearance, who stated he had been ill one month, during which time he had constant cough, great dyspnœa, and muco-purulent expectoration. When admitted, there was great dyspnœa, and on listening to the chest, throughout the whole of the anterior part, the respiration was sonorous, and on the posterior it was also sonorous, but it was accompanied with a very strong sibilous sound, I think as loud, if not louder, than I ever before heard it. The treatment I adopted was very simple, though exceedingly beneficial. I believe that the sibilous rattle depended upon a thickened or swollen state of the smaller bronchial tubes, and the sonorous, I believe, was owing to a similar condition of the larger tubes, which

probably had existed nearly a month. I had a pound of blood taken from the chest by means of cupping glasses, a blister to the sternum, and directed him to have two grains of calomel, combined with a quarter of a grain of tartar emetic and a quarter of a grain of opium, every six hours, and he was put on milk diet. The next day the cupping was repeated, and another pound of blood was taken from his chest. Two days after his breathing was greatly relieved, but still there was a sonorous and sibilous rattle, though certainly not to the same extent; the expectoration continuing copious, his mouth then became sore, and the symptoms were immediately much lessened, his breathing was easy, and his cough diminished, and the sonorous and sibilous rattles were no longer heard, and, finally, the expectoration ceased. He complained of his diet, and because I did not think proper to alter it, he managed to get some sausages, which he secreted in his cupboard unknown to the sister of the ward some time, but in spite of his eating these, he got perfectly well, and was discharged the sixth of this month quite cured.

The female patient, who was discharged, was Ann Edwards, between 40 and 50 years of age, who was admitted into Ann's Ward, Dec. 13, and whom, I have no doubt, many of you recollect occupied the third bed on the right-hand side. When admitted, she stated, she had been the subject of epilepsy for twelve months, and had had a fit a few days before; complained of great numbness in the whole of the left side, pain of head, inability to use her left arm, and was incapable of standing or walking; had no appetite, and vowed that she had never been addicted to drinking, though I found, from the sister, that she had not been in bed five minutes before she begged her to procure some porter. Now, the only disease that this woman was suffering under, and which I believe occasioned her no inconvenience, was an enlargement of the right ovarium, which was considerably diminished by the use of iodine, both externally and internally, and, as I found that her husband was daily in the habit of bringing her in spirits, I determined to dismiss her. She had no fit while in the hospital, and whenever she pleased could use her left arm and leg just as well as any of us. Many of you must remember her amusing endeavours to impose on me; she would tell me that she had not the slightest capability of using the left arm; on being desired to try, she would apparently make several ineffectual attempts; in the mean time I had turned down the bed clothes, and was examining the right ovarium, and having finished, would take the right wrist and appear to count her pulse, at the same time requesting her to replace the clothes, which she would instantly do, with the greatest alacrity and power with the useless left hand. When tired of lying in bed, she would occasionally condescend to recover her power, would dress herself, and walk about the ward, and at one of my visits, I found her seated at the dinner table, upon which occasion, one of the gentlemen took hold of the left humerus, pressing his fingers on the axillary nerve. She immediately affected to have a violent convulsive paroxysm, and upon my soon after making slight pressure with my finger upon one of the muscles of the forearm (having previously turned to the pupils present, and said, in her hearing, as the principal nerve is seated here, I suppose I shall produce it), she instantly had another attack of convulsions; in fact, she was a rank impostor, and whenever her husband failed to bring her some gin, would throw herself into the most violent paroxysms of rage.

I wish next to draw your attention to a case of paralysis from torpor of the nerves, apparently arising from cold. It occurred in Phœbe Munson, aged fifty, a washerwoman, who was admitted into Mary's Ward, November 1. She stated she had not been in good health for the last two years, having found, ever since that period, a gradual diminution of sensation and motion in the upper and lower extremities. Her occupation of course exposed her to cold, and about six months ago, the loss of power and sensation had so much increased as to prevent her from any longer following it. When admitted she was very low spirited, had so little use of her arms as scarcely to be able to feed herself, and could only walk with the assistance of a person on each side of her, dragging her legs along the floor; both the upper and lower extremities were very cold, and she complained of a constant sensation of general coldness and weakness. The sensibility of the lower extremities was so much impaired that I pinched the foot, instep, and calf of the leg pretty severely, while talking to her, without her expressing the slightest consciousness; this was more particularly the case with the right leg; she had rather more feeling in the left. In the upper extremities, sensation was not quite so much impaired; but she was incapable of holding any thing in her hands, more than a few seconds, and her grasp was exceedingly feeble; she complained of continual aching pain across the loins, occasional giddiness of the head, and dimness of vision; her tongue was white and tremulous, appetite tolerable, bowels very costive, pulse 80, small and compressible. Now, although she complained of this aching pain of the loins, with occasional giddiness and diminished vision, still, as I found, on examining the spine by percussion, that there was no reason to suspect inflammation, or congestion of the spinal cord, that there was no heat of the head, and that the pupils contracted and dilated perfectly naturally, I was satisfied that the paralysis was dependent on a torpid state of the nerves (probably from cold), and determined to treat it as such. I believe it is now pretty generally admitted, that cold is capable of producing this torpid condition of

the nerves, inducing, either locally or generally, loss of voluntary power, as well as diminished sensibility. There is a curious example of this related by Dr. Clark, in the fourth volume of the Edin. Med. and Surg. Journal. Dr. Powell, too, published some cases of palsy, arising from this cause, in the fifth volume of the Transactions of the College of Physicians. The indication there being to stimulate and excite the nervous system, I applied a blister to the nape of the neck, and ordered her the sixth of a grain of strychnia three times a day; and, to obviate the costiveness, gave her ten grains of the compound extract of colocynth every night, allowing her at first the house diet, viz. meat four times a week, and soon afterwards letting her have meat daily with a pint of porter. This treatment was continued during the greater portion of the time she remained in the hospital, the dose of the strychnia being gradually increased or diminished according to the degree of its effect. At one period, about the 10th day after she commenced it, she took half a grain three times a day, but she could not take this quantity long; the second day after taking this dose, it appeared suddenly to affect her head with giddiness, and to deprive her of all power over her limbs, but on being put to bed this soon subsided, and on the following day she had much more power over the voluntary muscles than she had possessed since she was admitted; indeed, on the fourth day from the commencement of her taking the strychnia, the sensibility and motive power had considerably increased; in less than a fortnight sensation was perfectly restored, and by the expiration of the month, she was able to walk firmly and without any support, taking each leg fairly off the ground. Ultimately, before she quitted the hospital, she was able to walk, to use her own words, "as well as she ever did in her life." The power of the upper extremities was more slowly regained, and although it began to increase as early as that of the lower, still it was not in proportion; and therefore, about the sixth week, I directed electric sparks to be drawn from the arms and shoulders, at the same time that she was still taking the strychnine. By degrees the power of the hands and arms returned, so that she could grasp firmly and maintain it for a considerable time, and when she quitted the hospital, she was quite sufficiently recovered to earn her bread. She was a woman of desponding state of mind, and would often tell me she was quite incapable of still using her hands, even at the time she admitted she fed herself, laced her own stays, tied all her tapes herself, and, in fact, dressed herself entirely; so, of course, as all of you know, when a person is capable of doing this, she must have free motion and use of her arms. Last Thursday, then, she went out quite well.

You will see, by the case-book, that when she had taken the strychnine about six weeks, some of the powdered valerian root was ordered for her, with a drachm of the ammoniated tincture in the camphor mixture: this was merely given her in consequence of the general feeling of coldness she still complained of. At the same time, you must not suppose I expected any great good from the valerian; the ammonia, as a stimulant, might increase the temperature of the body; the valerian, too, is unquestionably a stimulant, in consequence of the essential oil it contains, but it is contained in too small a quantity to admit of the dose in which she took it acting as such. I confess that I gave it to her with the intention of making a strong impression upon her mind, through the medium of her olfactory nerves, for, as I said before, she suffered great depression of spirits; and I believe the beneficial effects of this, as well as of most of the fœtid medicines, are to be attributed to the strong impression they make upon the mind. Afterwards, on leaving off the strychnine, when merely debility with coldness remained, I gave her some of the ammoniated tincture of iron; began first with a drachm, soon increased it to a drachm and a half, afterwards to two drachms, and then to two drachms and a half. This medicine I have always found a very excellent stimulant and tonic, and in this case it fully answered the purpose I intended. She soon now recovered her strength, the temperature of her body became natural, and she appeared to get quite fat. It is in these kind of cases, arising from cold, that strychnine is useful; but if the paralysis arises from any pressure, or effusion, no benefit can be expected from it; or, if it should arise from inflammation or congestion, it can do no good; but, in cases similar to the one I have mentioned, from its powerful stimulating effects on the nerves, it is often useful. I have found it also beneficial in cases of paralysis arising from another cause, viz., from lead. I have a case, at the present time, in the hospital, where I can clearly trace the cause to this poison; I have given him the strychnia, and under it he is decidedly improving. I have also another case in the hospital of palsy of the wrists and fingers, but where I cannot trace the cause to the poison of lead; and therefore, as there appears to be no disease of the brain or spinal cord, I am giving him also the strychnia, and from which he is certainly deriving benefit. You know that the peculiar effect of this remedy is the production of a sensation of either pricking or involuntary contraction of the muscles, and I do not think that it is of any service in paralysis, unless one or other of these effects is produced. This, however, is not necessarily its first effect, for those gentlemen who are in the habit of going round with me will, I dare say, recollect, that many patients taking this medicine have complained of pain in the head, vertigo, and dimness of sight, and sometimes even to such an extent, that they have fallen down in a state of insensibility, without having been previously affected by any pricking or twitching of the muscles. I mention this, because Orfila and Magendie

have asserted that it acts upon the spinal cord alone; the latter, indeed, has stated, that in experimenting on animals, if he divided the spinal cord at the occiput and removed it, that then the strychnia was incapable of producing any effects; but that if he left the spinal cord entire, and then removed the brain, its specific effects were produced. I am, however, satisfied, that some affection of the brain is quite as frequently produced as the tetanic affection of the muscles. It is commonly said too, that the muscles of the paralysed limbs are chiefly affected by these convulsions, nay, that in many cases they alone are affected, the muscles of the healthy limb remaining quiet, while the paralysed limb is also said to have diaphoresis produced without the other participating. I cannot say I have found either of these to be the case. The muscles of the healthy side have been quite as much affected as those of the diseased, and when diaphoresis has been produced, I have not observed that it has been partial. Notwithstanding this, I have often seen it produce the convulsive twitching of the muscles, without the head being at all affected. With regard to the dose of strychnia, many begin with not more than a tenth or twelfth of a grain; I rarely commence with a less dose, to an adult, than the sixth of a grain, either of the pure strychnia or of the sulphate; and, if there be no affection of the head, no pricking or twitching of the muscles, gradually increase it to a fifth, fourth, third, half, and, in some instances, a grain, three and four times a-day. I have never exceeded a grain for a dose; it required always to be given with caution, and to be watched. Where the dose is not increased, it appears to me to accumulate sometimes in the system; for I have known two or three instances of patients taking the same dose for two or three days without its producing the slightest apparent effect, and who have suddenly been attacked by violent twitching of the muscles, and who have fallen down in a state of insensibility. To a child, the dose I should commence with would be, at most, the twelfth of a grain, which should be very gradually increased until some such effects are produced as I have named.

The case which terminated fatally was one of confirmed phthisis; it was an Irish woman, aged thirty-three. I should not have taken her in myself, but admitted her to oblige a medical friend. She stated that she had been ill only four months, but admitted that she had had cough, with occasional hæmoptysis, for a much longer period. There was great emaciation, purulent expectoration, colliquative sweats, the nails hooked, ends of the fingers enlarged, rapid pulse, hectic fever. On listening to the chest, the sound, by percussion, was dull under each clavicle, perfect pectoriloquy under the left clavicle, imperfect under the right. Satisfied that I could do nothing for her, I merely ordered her some dilute sulphuric acid, which, as her appetite was bad, was directed to be taken with some of the compound infusion of gentian; and, as her cough prevented her sleeping, a grain of opium at night, which, not being sufficient, was increased to a grain and a half. She was able to get up during the day, and to be about the ward. I intended to keep her in a fortnight, and then discharge her. I understand she was attacked one evening with dyspnœa, and died suddenly. She did not bring up any blood by coughing; but the sister of the ward informed me, that a quantity ran out of her mouth after she was dead, and therefore I conclude that she died from suffocation either from hæmorrhage into the air tubes, or the bursting of a vomica; but, as no examination was permitted, I have no proof.

The next case was one of chorea, occurring in Frederick Walker, aged twelve, admitted into Jacob's Ward Dec. 13th. Looked pale and thin; his mother stated that he had been the subject of this disease for a year and a half; that during that period he had been occasionally free from it, though not for any length of time. She also stated, that nine months ago he was in this hospital under Dr. Elliotson's care, remained in for three weeks, and went out well. A fortnight after he quitted the hospital he was attacked with fever, and, as he became convalescent from fever, the chorea returned, and has continued until now, but, during the last three months, has considerably increased. The left side was most strongly affected; there was convulsive action of the muscles of the arm, hands, and fingers, and left leg, which he drags in walking; the right side is also slightly affected; he appears dull, and looks vacant; speech not affected, and tongue, which was clean, protruded with steadiness; had considerable command over the muscles, for, when noticed, he could keep his hands steady for two or three seconds, but when off his guard, there was constant winking of the eyelids, with twitchings and contortions of the arm and legs. His mother stated, that when at play with his companions, she observed frequent gnashing of the teeth. During his sleep he was perfectly quiet, but slept lightly, and was easily awakened; had no pain or heat of head; appetite voracious; bowels quite open. No pain in the belly with or without pressure, but had some pain passing down the left extremities. Pulse 88, of moderate strength. Complained of itching of the anus; and his mother said, that formerly he had passed a quantity of ascarides. Thinking there might be ascarides now acting as an exciting cause, I at first directed him to take scammon. cum cal. gr. xv. in the morning, and to repeat it every other morning, with milk diet. This was on the 13th, or the 15th, when I saw him: found no ascarides had been passed, therefore I ordered him two drachms of the subcarbonate of iron every six hours, in conjunction with the aperient, and put him upon dry diet, because he wished for it himself. On the 19th, six days after his

admission, he was not so well; he looked paler, had less appetite, complained of headache, and there was more dulness about him: he said himself he was not so well, and attributed it to the carbonate. This did not appear to arise from any disinclination to take it, because he admitted he had experienced great benefit from it, when under Dr. Elliotson, and liked it. I directed the aperient powder to be still given every other morning, and omitted the ferri subcarb. At the expiration of nine days, the powder having each time purged him freely, and finding no improvement, I left off the purgative, and ordered, four days afterwards, two grains of the sulphate of iron three times a-day, with the cold shower-bath daily, and directed him also to take half an ounce of castor oil occasionally, if costive, with house diet. Under the sulphate of iron he quickly improved, and it was ultimately increased to five grains for each dose. He became perfectly steady; there was no winking; slept comfortably, looked healthy, and went out on the 21st of January, quite well. I ordered him to continue the sulphate of iron and the shower-bath for some time longer out of the house, lest the disease should return.

Now, with regard to the advantage of purgatives in this disease: they have been strongly recommended by high authority; and where there is reason to suspect that the chorea is accompanied by worms in the intestines, or where there is a loaded state of the bowels, or great costiveness, it is certainly right to employ them. Still, when given under these circumstances, I have never been able to cure a case by purgatives alone, but have always been obliged to resort to tonics. In many instances, frequent purging has appeared to do harm and augment the disease. In the present case, you will observe, they did no good, and that the boy began to get better as soon as they were left off, and that he was put on a tonic plan of treatment;—indeed I should not have continued them so long, but for the possibility of there being worms in the rectum. I recollect that my attention to the injurious effects of active purging in chorea was first directed by one of the sisters of the hospital five or six years ago. At that time I had a very obstinate case in Mary's Ward: it occurred in a girl of twelve or thirteen years of age, and had resisted various tonics; but during the whole time of taking the tonics she had also been taking an active purgative every other day. The sister of that ward, who is a most excellent one, and has been in the hospital nearly thirty years, at length told me she observed the patient was always less steady on those days that she took the purgative. I watched the case more attentively, and finding it was so, withdrew the purgative, persevering in the use of tonics only, which was either the sulphate of zinc or carbonate of iron (I forget which), and the girl got quickly well; and, since then, I have observed the same in many other cases. Occasionally we find chorea combined with some indications of inflammation, or congestion, either of the brain or spinal cord, and requiring antiphlogistic treatment by means of cupping or leeching, cold to the head, purgatives, &c. Nevertheless, after the removal of this condition by depletory measures, I have found the chorea still remain, and only at length yield to the exhibition of tonics.

As to what tonics are most useful in this disease, I should say, the preparations of iron, zinc, and arsenic, are those which are most to be depended on. I have had many cases which have yielded to the sulphate of zinc, given in doses of one or two grains three or four times a-day, and gradually increased to ten, fifteen, or twenty grains. Slowly increased in this way, the stomach will bear more than twenty grains for a dose, without vomiting. I had a patient that took twenty-two grains for a dose every six hours, without sickness; and, to be satisfied of the fact, she took it more than once in solution, in my presence. I have also had many that have yielded to the carbonate of iron, and others to the sulphate. Some, again, where the disease has refused to yield to the carbonate of iron, have got well under the sulphate of zinc, and *vice versâ*. In some few instances, where I have been unable to make any impression upon it by any of the preparations of iron or zinc, it has yielded to arsenic or to quina; though I must say, that I think the carbonate of iron has been generally the most successful remedy. With regard to the proportion of males attacked by this disease, Mr. Stone has done me the kindness to look over my books, and I find that, from September 1828 up to the present time, I had twenty-seven cases of chorea in the hospital, six of which were males and twenty-one females, all of whom went out of the hospital well but one; and I may say that is the only case of chorea I ever saw terminate fatally, either in public or private practice, and indeed it cannot be said that she died in consequence of the chorea, as, upon the post-mortem examination, there was effusion between the membranes, and into the ventricles of the brain, great congestion of the blood-vessels, acute inflammation of the kidneys, and extensive ulceration and thickening of the mucous membrane of the bladder. On looking at the ages of these twenty-seven patients, I find there was only one under eight years of age, seven were more than sixteen, one advanced as far as fifty-six, the remainder were between the ages of eight and fifteen.

The next case, which I wish to draw your attention to, is one of chronic gastritis, occurring in Elizabeth Wood, 15 years of age, a tambour-worker, and was admitted into Elizabeth's Ward, January 17th. Stated she had been ill one month, during which time she had been subject to constant vomiting, in the course of five or ten minutes after every time of taking food; has no nausea or feeling of sickness, but occasionally has severe pain of

the head, stomach, and back, though not constant. These symptoms I found noted down in the case-book: when I saw her she related the same symptoms to me; the epigastrium was tender and painful on pressure. She had a sensation of heat in the stomach, and occasionally clear water was rejected by the mouth; the tongue was morbidly clean; bowels rather confined; pulse 100, force natural. She had never menstruated; skin moderate, as to temperature. She was admitted on a Thursday, but it was not my taking-in day, and Mr. Whitfield, or Mr. Stone, in my absence, very properly, directed her to take two minims of the hydrocyanic acid in some water an hour before each meal. She took this from Thursday until Saturday, about one o'clock, when I saw her, but without lessening the vomiting. The symptoms appeared to me to arise from chronic inflammation of the mucous membrane of the stomach; I directed leeches to be applied to the epigastrium, and afterwards a blister; at the same time let her continue the hydrocyanic acid, and gave her five grains of calomel, followed with half an ounce of castor-oil, for the purpose of emptying the bowels; her diet to consist of milk and water and arrow-root. The leeches bled very freely, and, after the action of the blister, both the vomiting and the tenderness on pressure at the epigastrium entirely ceased, her health gradually improved, and she went out quite well on the 31st. Now, these cases are of frequent occurrence, and it shows you the necessity for thoroughly examining into the nature of the affection. Under the term of dyspepsia, which by the by means nothing, for dyspepsia is not a disease of itself, but merely a symptom arising from disease or disorder of some organ, these symptoms are often treated with stimulants and tonics to the certain aggravation of the disease. I should say, that wherever you find tenderness on pressure at the epigastrium, with a sensation of heat in the stomach, the tongue looking morbidly red, you cannot do wrong by treating it antiphlogistically, and that if, on the contrary, you should give stimulants, nine times out of ten you will aggravate the disease; and had this girl been so treated, I think that it would have laid the foundation for such disease of the stomach as I showed you at my last lecture.

There is one more case, gentlemen, to which I am anxious to draw your attention to-day, and that is one of acute pleuritis with bronchitis. The subject of it was Mary Smith, aged 38, a cook in the family of Mr. Williams, an eminent general practitioner in this street, whom, I dare say, some of you have heard of, was admitted on Saturday, January 17th. She stated, that three weeks ago, when very hot, she exposed herself to the cold air, after which she had rigors followed by fever, and was sick during the whole of the night; the next day, however, she was tolerably well, and continued so until Wednesday last, (three days ago), when she was again attacked by cold chills, pain of the back and limbs, with great coldness of the feet; these symptoms were soon followed by a most severe stabbing pain in the inferior part of the right side of the chest, accompanied by dry cough, and aggravated by every attempt at inspiration. When admitted, as I said before, she had been ill three days, had been freely bled by her master, and taken medicine. The pain, however, was not diminished; the countenance anxious; the cheeks slightly flushed; the skin hot and dry; tongue white, and she frequently cried out with the pain when the cough came on, or when she inspired deeply; had severe pain on pressure between the cartilages of the ribs; the pulse 134, full and hard: the cough was now attended by some expectoration of mucus. By auscultation, I found the respiration slightly sonorous, with some mucous rattle over the whole of the right side of the chest; the respiratory murmur was heard, at the lowest part of the right side, less distinctly, as I approached the seat of pain, which I was satisfied arose from her having learned to favour that lung by inspiring less deeply; for, on my urging her to take in one deep inspiration, she did so, though with exquisite pain, and I then heard the respiration with sonorous and mucous rattle there, just as distinctly as in any other part of the chest; there was no crepitation, and no dulness on percussion, for which reason I do not believe there was any inflammation of the substance of the lung, neither do I believe there was any effusion, although the pleura had been acutely inflamed three days. It is said, that effusion follows inflammation of serous membranes more rapidly than has hitherto been imagined; in many instances, I dare say it may, but that it will sometimes exist several days without, I had once an opportunity of ascertaining.

When I was physician to the Carey-street Dispensary, I recollect a case of acute pleuritis, which terminated fatally, and in which, on post-mortem examination, the whole of the pleura costalis, and that covering the diaphragm, was of a bright scarlet hue, showing numberless red vessels without any effusion. Now, the treatment of the case was as follows: a pound of blood was taken from her arm, and she was directed to take three grains of calomel and a quarter of a grain of tartar emetic every four hours, and for diet only to have slops. The pain in the side was lessened by bleeding, but she got no sleep; the apothecary ordered her on the next day to be cupped to fourteen ounces from the chest, and the day after, when I saw her, the pain, though diminished, was still considerable, and her respiration more sonorous: I therefore ordered her to be bled from the arm to ten ounces, and a blister to be applied to the right side. The blood exhibited, on each occasion, the true character of pleuritic inflammation. After this bleeding, the pain was very much lessened, the respiration was still sonorous, with some whistling, and the expectoration had now become copious; her mouth, at this time, was sore from the mer-

cury, and after this I had no occasion for further depletion, as all inflammation of the pleura had subsided; for a day or two the mercury was omitted, and then I gave her merely a sufficient quantity of the hydr. cum cretâ, just to keep up slightly its action on the system: under this treatment the respiration became less and less sonorous, the cough and expectoration ceased, and she was so well that I should have discharged her on the second of this month, but, at the request of her master, allowed her to remain in another week; however, it appears, that, on Sunday last, she went to chapel, caught cold, and has now a slight inflammation of the larynx. It certainly is exceedingly improper that patients should be permitted to go into the square, or to chapel, without having first obtained our permission, though I have no doubt this woman will speedily recover again *.

You will observe, that, in the treatment of this case (as is my practice in most acute inflammatory affections), I did not rely on bleeding alone, but gave mercury freely at the same time, because I am satisfied that, in acute inflammation, or congestion of the serous, fibrous, and glandular tissues of the body after bleeding, we possess no remedial agent so powerful as mercury, given in sufficient doses, to produce its specific action quickly on the system. You will find this remedy, too, equally efficacious in subduing acute inflammation of *some* of the mucous membranes, but not in all; for it appears to me, that its power of lessening inflammation is limited to those tissues of the body, capable of taking on what is called adhesive inflammation, which, from the nature of the false membrane we occasionally found, I take to be the case in acute inflammation of the air-passages, and hence we give it with the greatest advantage in laryngitis, tracheitis, and bronchitis; while, in acute inflammation of the mucous membrane of the stomach and intestines, where it is very doubtful if this species of inflammation ever exists, the internal exhibition of mercury, according to my own observation, does harm, increasing the inflammation, as I conceive, by its irritating and stimulating the inflamed surface by actual contact, and, therefore, in such cases, I should advise you never to use it.

HISTORY AND OBJECTS OF MEDICAL REFORM.

ARTICLE II.

We may begin by observing, that the subject of *medical reform* has been a favourite one among the philosophical portion of the profession. With a single (and truly contemptible) exception, all the medical periodicals have joined in writing it up. Some, perhaps, may have taken one view of the matter, while others may have adopted another; some, again, have lanced their darts against a particular branch, or department. "*Suum cuique! Honos quibus debitus,*" say we. Let us join in a common and laudable cause, for (as says one of the ancients) "*Magna est veritas, et prevalebit!*"

Before taking up the questions *(seriatim)* propounded in Article I, it may save repetition, and tend to the clearer understanding of the subject, if we attempt to connect the term *medicine* with a more definite meaning than that under which it has been hitherto, very generally, received.

Medicine and *surgery* are terms which, for ages, have been recognised among civilised nations; but, taking the meaning of *civilised* (as used here) to be partial improvement only, and that improvement rather of an arbitrary than of a spontaneous nature (such as is produced by the call of events, or the progress of the times), the distinction in question has existed, with most decisiveness, where improvement has not reached the highest pitch. Thus, in some *christian* countries, the physician is absolute in the treatment of disease, while the surgeon is no more than his menial, doing nothing but handywork, and that, not unfrequently, of the lowest description in the way of using instruments; while the same designation is elsewhere (and at present generally as well as properly) assigned to a well educated *gentleman*, who, to the knowledge possessed by the physician, joins the dexterity, skill, and science of one who is well acquainted with the structure and functions of all parts of the body, but more especially of those which are accessible by manual applications;—who moves in a parallel sphere to the *doctor medicinæ*, while, by the custom and law of certain countries (France for instance), he is created *doctor* in the department with which he professes to be more parti-

* This woman has now quite recovered from the inflammation of her larynx.

cularly conversant. The barber of Spain, Portugal, and other countries, is no more the *surgeon*, as recognized among us, than the water-carrier of the same regions is to be classed with our engineers, who construct a mighty, and often a complex, though a scientific apparatus, for the conveyance of water, in countries, and under governments, which encourage the useful rather, perhaps, than the fine or ornamental arts If we are not mistaken, there were engines of the most useful description in high and extensive operation, before we could boast of fine collections of pictures or statues. The names of Bolton and Watt will last as long as those of Reynolds, West, or Lawrence, of Chantrey, or Sievier; and their works will differ, chiefly in this respect, from the canvas and the marble, that they may be repaired, when worn, without detriment to their original beauty or utility.

But, to regain ground, which, perhaps, some may be of opinion that we have by this time almost lost, let it be declared, that by *medicine*, in the true acceptation of the term, we can understand nothing less than a knowledge of the nature and method of treating diseases; whether these be hidden among the viscera, displayed in parts more visible and accessible, or peculiar to ages, sexes, and other conditions. Thus the physician, the surgeon (in the sense of the word already laid down), the obstetrician (as with better taste and more display of learning he has already been called), and the apothecary, have interests in promoting the prosperity of medicine, common to all, and advantageous to the community if rightly exercised*.

We proceed, therefore, with query the first.

Does medicine, as at present constituted, stand in need of reform? If it be, as many have said, merely a conjectural art, it must obviously remain so, until it be set upon a firm and unchanging foundation. But we must bear in mind the distinction which exists between the mode of exercising the healing art, as it is actually practised, and that in which it ought to be carried on.

It has long ranked as one of the liberal or learned professions; but it has hitherto followed in the wake of the others; and, not only so, but the honours and distinctions which have been bestowed upon persons eminent in branches of knowledge, not recognized as of the same rank, have transcended those, by far, of medical men. Indeed, the last mentioned have been generally neglected, and, except by a few superior minds, disliked, if not despised. Perhaps this may, in considerable measure, be owing to the unpleasant nature of medical applications; while the lawyer or the clergyman has it in his power to administer flattering unction, and soothe the malady which he takes in hand, even in the most desperate form; but there is also to be taken into account the circumstance of long established seniority, and the indomitable influence of custom immemorial. Medical interests have not been yet recognized, in this country, three hundred years; but those of divinity and law have been upon a sure and (for themselves) advantageous footing during time immemorial.

Additions to medical knowledge (involving improvement in the treatment of diseases) are in constant progress; but while the science advances, it somehow appears as if its rule and government stood still, and as if the use of new facts and discoveries were indispensably the same as that which characterized the doctrines and practices they necessarily explode; in short, as if those by whom the interests of the community, as connected with the extension of medical knowledge, have been voluntarily assumed, were either overwhelmed by the magnitude and importance of their acquisitions, or had no regard for the responsibility they have incurred, or for the real interests of mankind.

* The question as to the existence of *a medical community* will afford matter for discussion hereafter.

As an important part of this inquiry, regarding the necessity which exists for reform in medicine, and as a subject calculated to facilitate the general answer, we must briefly advert to the particular abuses which appear to demand rectification. And the first and most conspicuous of these is clearly the corporate bodies, which have so long been hanged, like millstones, round the necks of the profession. We do not go the length which some would do, of desiring their extinction; on the contrary, we would have them live in a sort of *otium cum dignitate* manner, not running greedily about after emoluments received from private sources, and making public station subservient to this cherished object. What, for instance, would the corporations be, *de facto*, if they were not successful in impressing upon the public a belief, that *their* members are alone trust worthy, and that all knowledge, of a professional nature, resides exclusively with them? They dare not admit fair and honourable competition, and for obvious reasons. But these might retain existing privileges, distinct from the duty—the odious, irksome, and therefore neglected one—of superintending professional concerns; they might continue to enjoy vested rights, which, though not originally conferred by law, have, in a manner, become so, by remaining long undisturbed. The Fellows of the College of Physicians, for instance, might be raised to the dignity of *Lords Physical*, and replace the *Spiritual*, so soon as these shall be dismissed to their professional duties—an event which is not far distant.

If the existing corporations, which ought now to be furnished with a vast accumulation of experience, transmitted through a long line of predecessors, are, however, to be continued in the comparatively *humble* situation * of guardians of the public health, they should be exempt, either by law or proclamation, or in some other tantamount manner, from attending to private business, as exercised in the way of private practice.

The heads of the medical departments of the national forces—of the army and of the navy—are not permitted to pursue private practice. Such pursuit, after long endurance, was discovered to exert the most injurious influence upon the public interests committed to their charge, and we are bold enough to assert, that the old *Walcheren Army Medical Board*, was kicked out—absolutely pushed into retirement—less because they had never "known any thing about *Army Diseases*," as stated, by the *Physician General* (and at the same time, President of the College of Physicians) *, than because private interests so engrossed them as to leave neither time nor inclination for attention to public business. Things were then remedied. A new set of officers—men who had not only seen, but who had been profitable to the service in every way; who were proud of *rising* in a service, with which their predecessors could have no common feeling—because they had passed little, if any, of their time in it—was appointed, and the system adopted upon that occasion has been since continued.

We repeat, that the members of these boards are precluded from the pursuit of private practice; for, if they were intent upon this as the means of enabling them to discharge their public and official duties, it requires no man to rise from the grave and declare, what sort of discharge these duties would receive, if a subordinate object of consideration on the part of those to whom they might be confided.

* That is, according to their own practical view of the matter.

* Was it not upon this singular declaration, that the play upon the learned baronet's name was so generally adopted, that it was enough to excite risibility when he was mentioned in a serious manner? There was a caricature on the occasion, the pith of which we shall not quote: the sooner such things are forgotten the better.

Look at the history of many public medical functionaries, and see how completely and how pertinaciously they have persisted in beginning at the wrong end. *Private practice*, P. P.—all else must succumb to this. What made Pringle President of the Royal Society?—*Private practice.* What has made every President of the College of Physicians such, time out of mind?—P. P.; and of Surgeons?—The same!!! Separate personal prosperity, as to wealth, from personal importance, as to *duty*, and we shall find that few will covet the situation; but those who might then undertake to occupy it would bid fair to discharge it with clean hands.

ALIQUIS.

THE

London Medical & Surgical Journal.

Saturday March 9, 1833.

THE SURREY INCENDIARIES.

We observe, by an article in one of our contemporaries, that some gentlemen, assembling together, and calling themselves a society, have, in consequence of some strictures that appeared in our Journal, determined to withdraw it from their meeting-room, and have, with more bad taste than we could have supposed existed amongst any number, however small, of intelligent members of the medical profession, condemned it to the flames. Men of understanding, when they disagree with any opinion that has been expressed, do not so act; they calmly, coolly, and cautiously discuss subjects of deep interest to the public. They do not, because the opinions of others differ with their own, proclaim their own inability to answer them; nor do they proceed to any such disgraceful act as destroying books, which may not exactly suit their own views. Such a spirit existed in the darker ages; such were the feelings of those who burnt the works of Servetus, the great competitor with Hervey for the circulation of the blood, and thus kept back, for years, the knowledge which at last, in spite of ignorance, and of a dread of truth, burst forth to illumine and to bless mankind. We need scarcely assure the profession we have its interests deeply at heart. We have no other wish but to see it upon the firmest basis of honour and of integrity.

The article that called forth the anger of these gentlemen stated only truth: it was the system that has been so unfortunately introduced that we then and now condemn. We have stated our decided opinion, that it tended to make the high-minded and honourable men that enter the profession mere dealers in draughts and venders of drugs. Whatever the profession may imagine to be the light in which it is held by the public, let it be cautious that science is not degraded to a mechanical art, that an apothecary be not considered as a tradesman, and that he should be supposed capable of attending patients solely with a view to send in a bill. It is this system that we have deprecated. We shall ever be the independent guides of the public, without the slightest attention to the thought whether our sale is increased or diminished, by the honest expression of our feelings. We will maintain the character which we have struggled to

enjoy, and will never lend ourselves to any one idea which can degrade the noblest occupation of an intellectual being.

We have always been the warm advocates of the apothecary, because his education is now complete; he is enabled to be the sick man's supporter and friend; but how many are there, of that needy class, who are driven to acts which lower the rank of the others; who keep open shops, and vend the vilest nostrums, knowing that by thus acting they do irreparable mischief; and how much better would it be if each visit was paid for at a proper and fair rate, yet the expression of this opinion was the cause of this extraordinary procedure. We are most happy, on looking over the list of the names of those who were present on this occasion, to find that they are persons totally unknown to the profession. We have occasion to know that the resolution taken is disapproved of by the practitioners in Southwark, who stand highest in the estimation of the public, and who have repeatedly refused to associate with these persons, whom nature intended to have placed in the darker ages of society, but by some mistake brought them forward at a later day, to inflict dulness and obscure truth, by condemning its followers to the flames which their stupidity and pigheadedness had lighted.

We have drawn up a contrast between the laws relating to the medical profession, as they exist in this country and in France. We are persuaded a perusal of them will satisfy our readers of the correctness of the views we have always taken of the state in which science is placed in this country, and that we have been swayed by a wish to forward its best interests.

MIDDLESEX HOSPITAL.

Mr. Tuson has been the successful candidate for the office of Assistant-Surgeon; and we congratulate the public, the profession, and that gentleman, on the result of his canvass. His anatomical knowledge, and his exertions in the different departments of science, deserve this reward.

There were 538 who voted.

Phillips	Proxies	22
—	Votes	40
		62
Shaw	Proxies	100
—	Votes	130
		230
Tuson	Proxies	56
—	Votes	192
		248

WESTMINSTER MEDICAL SOCIETY.

Saturday, March 2, 1833.

Dr. Jewel in the chair.—The discussion of Dr. Granville's observations on utero-gestation was resumed, in which Mr. Burnett, Mr. Chinnock, and Dr. Granville, took the principal share. Nothing very novel was adduced, though the debate was not uninteresting. The subject was adjourned till next Saturday.

DECREES, LAWS, AND ORDINANCES RELATING TO THE PRACTICE OF MEDICINE, SURGERY, PHARMACY, AND OBSTETRICY IN FRANCE.

Examinations and Reception of Doctors of Medicine and Surgery.

I. No person shall practise the profession of medicine, surgery, or of officer of health, unless he has studied as a doctor of medicine and surgery, has been examined as such, or as an officer of health.

The examinations are five in number, and are public. Students must attend all the medical lectures for four years before they are admitted to examination for the degree. The students of the Universities of Paris, Montpellier, and Strasburg are entitled to examination; and officers of health must be examined by a medical jury.

The government can, if it be considered advisable, accord to a foreign physician or surgeon, who has graduated in a university, the right of practising medicine or surgery in the French territory. After the five examinations, the aspirant is to defend a thesis written in Latin or French.

[*N.B. We leave these spaces to show the contrast, and also for facilitating the perusal by members of parliament. We have excluded several articles which shall appear in our next.*—EDS.]

II. *Examinations and Reception of Officers of Health.*—Those who are destined to become officers of health, are not obliged to study in the schools of medicine; they are admitted after having passed five years as students under a doctor, or after six years spent consecutively in the civil or military hospitals. A course of study for three years, in a university, is also a qualification.

The medical jury, for examination of officers of health, is composed of two doctors, domiciled in the depart-

STATE OF THE LAWS RELATING TO THE PRACTICE OF THE MEDICAL PROFESSION IN GREAT BRITAIN AND IRELAND.

Examination and Reception of Doctors in Medicine and of Surgeons.

I. EVERY person may practise the professions of medicine, surgery, and of general practitioner, or surgeon apothecary, in Great Britain and Ireland, without having studied any branch of medicine *. The law is nominally the same as in France, but, as it cannot be enforced, unless in the superior courts of justice, and is attended with immense expense, from 200*l.* to 500*l.* to effect a fine of 5*l.*, it is scarcely ever put in operation, and is a dead letter.

The degree of doctor is conferred by the universities, but does not entitle to practise; the title of surgeon is given by the corporations called Royal Colleges of Surgeons. The examinations for the degree are six in number, and comprise all the medical sciences: the *one* examination for surgery includes anatomy also.

Foreign graduates are not allowed to practise in this country, unless re-examined by the Colleges of Physicians or Surgeons.

After six examinations, the first in English and the remaining five in Latin, the candidate for the degree is to defend a thesis, written in Latin.

After half an hour or an hour's examination, in anatomy and surgery only, the candidate, if approved of, is entitled to a diploma for surgery.

II. *Examination and Reception of Apothecaries, or of Surgeon-Apothecaries, now called General Practitioners, similar to Officers of Health.*—In

* The College of Physicians of London cannot recover a fine of 5*l.*, unless the accused has practised one entire month as a physician in or within seven miles of London, and then by action in the courts at Westminster only. The difficulty of proving, that a person practised every day for a month, in such a city as London, is almost impossible, and hence the law is not enforced. The expense is also prodigious, while in France the fine is enforced by a police magistrate.

ment, and a commissioner (the president), who is to be one of the professors of the School of Medicine. This jury is appointed every five years, and may be continued.

The jury fix a certain time every year for examinations, which are three in number; 1st. on anatomy; 2d. on surgery and pharmacy; and 3d. on the elements of medicine. These are held in French, and are open to the public. The expense of these examinations must not exceed 200 francs, or 8*l.* British.

III. Doctors and officers of health must, after a month's residence, present their diplomas for registration.

An annual list of doctors and surgeons must be submitted to the government in the month of December.

Medical evidence before all courts must be given by doctors of medicine and surgery, officers of health, and midwives.

England, the candidate must serve an apprenticeship of five years to a qualified apothecary, and, during the last two, attend, for six months each, a course of lectures on anatomy, chemistry, materia medica, practice of medicine, surgery, and midwifery, and a course for three months on botany and medical jurisprudence. He also attends, for twelve months, the practice of a physician at an hospital, or for fifteen months at a dispensary.

He is examined by the court at Apothecaries' Hall on anatomy, chemistry, materia medica, practice of medicine, and now on midwifery. This examination occupies one hour and a half, or two hours. He is not required to make chemical experiments. The drugs are presented to him, as also medicinal plants; and, before his medical examination commences, he is to translate physicians' prescriptions, the formulæ in the London Pharmacopœia, and a few sentences of Celsus de Medicina, or Gregory's Conspectus Medicinæ Theoreticæ.

The course of education in France is more extensive than in this kingdom.

The examination at the Apothecaries' Hall is not public, and the candidate is not examined in surgery.

The expense of the diploma is 10*l.* for London, and 6*l.* for the country.

III. There is no list of doctors, surgeons, general practitioners, or midwives published annually by the government or police in this nation, and hence these titles are assumed by every class of persons, and the public health sacrificed by this unprincipled duplicity.

Medical evidence is not invariably given in British courts of justice by regular doctors, surgeons, &c., but often by illiterate pretenders, who assume the medical titles, and too often destroy the lives, liberty, honour, property, and character of every class of society, both in civil and criminal proceedings. When the wealthy are concerned, legally qualified medical men are summoned; but not when the litigants are poor.

IV. Doctors may practise in all parts of France, but officers of health in their respective departments only. The latter cannot perform the great operations in surgery, unless under the inspection of a doctor.

V. *Instruction and Reception of Midwives.*—There shall be established in every department an hospital, in which lectures on the Theory and Practice of Midwifery shall be given to midwives gratuitously.

The midwives must attend two courses of lectures, and the practice of the hospital for ten months, under the care of the professor, before they are entitled to examination.

They are to be examined by the jury on the Theory and Practice of Midwifery, and on the Diseases of Pregnancy and Childbed. If admitted, they receive a diploma without any expense.

They shall not employ instruments in laborious labours, except in the presence of a doctor of medicine or surgery. The diplomas are to be registered, as in the case of the doctors and officers of health.

Penalties.—Every individual who, after the expiration of six months from the publication of this law, practises medicine, surgery, or midwifery, without his name being on the registered list, shall pay the following fines at the office of the correctional police.

The fine on those who practise as doctors of medicine or surgery is 1000 francs, or 40*l.*; and 500 francs, or 20*l.* if officers of health.

IV. Doctors cannot practise in all parts of the British dominions: those of Oxford and Cambridge cannot practise in England, unless re-examined by the College of Physicians in London, neither can those of Scotland or Ireland without undergoing the same ordeal. Nor can English doctors, or members of the Colleges of Physicians or Surgeons of London practise in Scotland or Ireland, unless qualified by the colleges in these sections of the United Kingdom. This arises from the countries having been distinct nations; but, now united, it is unjust, oppressive, and preposterous.

General practitioners, whether members of the College of Surgeons or not, are not prevented by law from performing the great operations in surgery.

V. *Instruction and Reception of Midwives.*—Midwives are instructed in our obstetric institutions in large cities, but not in the counties or provinces. Every woman may act as midwife in any part of Great Britain and Ireland, as there is no law to the contrary.

The Colleges of Physicians in London, Dublin, and Edinburgh do not examine in midwifery; neither do the Colleges of Surgeons, unless that at Dublin. Every man may practise midwifery in London—quacks, chemists, druggists, and fruit-sellers. There is a fruit-seller in the City who attended one of our hospital lecturers on midwifery, and received his certificate. He has on his door "J— S— Man-midwife and Accoucheur." He makes an honest livelihood by hawking oranges in the streets. There is no public list of qualified medical practitioners.

Penalties.—The fine for practising medicine in London is 5*l.* a-month, recoverable only in the Courts of King's Bench, Common Pleas, or Exchequer, at an expense of 300*l.* There is no fine in Dublin, Edinburgh, or throughout the counties of England, Ireland, or Scotland. No fine is imposed for practising surgery; and that for pharmacy, in London and Dublin,

Every woman practising midwifery without a diploma must pay a fine of 100 francs, or £4 British. The fines are doubled for the repetition of each offence, and, in default of payment, the punishment is six months' imprisonment.

VI. *Examination and reception of Apothecaries.*—The pharmaciens or apothecaries must not practise unless qualified according to law. They must have passed eight years in a legalized shop, or have attended three courses of lectures at the School of Pharmacy, and passed three years in a shop. These two classes, with those who have passed the full period in civil or military hospitals, are admitted on the same terms. Students in provinces must have annual registers of their attendances at the School of Pharmacy, as well as those with apothecaries, whose pupilage will be registered by the Commissaries-general of Police.

The medical jury shall consist of two doctors of medicine and surgery, professors of the School of Medicine: and the professors of the school are to elect them. Five apothecaries, who have been qualified for five years, are to be added.

There are three examinations on three separate days:—the first on the theory and principles of the art; the second on botany and natural history; the third on practical chemistry and pharmaceutical operations. The candidate must perform all experiments, describe the materials, their combinations, and results.

The candidate must be twenty-five years of age, and of good moral character; and two-thirds of the jury must agree as to his competency, to entitle him to a diploma. He must present his diploma to the prefect of police in Paris, or to the prefect of the department in which he resides, before he commences practice. The expense of the examinations at the School of Pharmacy is 900 francs, or 36*l.* British, and by the jury 200 francs, or 8*l.* British.

is enforced in the upper courts of law, and hence seldom inflicted. There is no fine for practising midwifery in any part of the United Kingdom.

VI. *Examinations and Reception of Apothecaries.*—This has been given under Sect. II. *General Practitioners.* In England, the law requires an apprenticeship of five, and in Ireland of seven years. In neither place is the examination so severe as in France, where it occupies three days. Aspirants, or candidates, in this country do not perform a single chemical experiment, or describe the materials, their combinations, or results. The students do not attend to practical chemistry; and there is not perhaps one in a thousand of them could pass the French examination in chemical manipulations. The French apothecary is a scientific and practical chemist; he prepares all his own medicines and compounds, in a genuine form, such as is necessary and can be depended on by physicians and surgeons. The English apothecary does not prepare his own medicines; he purchases them of chemists and druggists, the latter generally ignorant of chemical or medical science, and supplying an adulterated article for the sake of gain. Of this hereafter. The French licence costs 36*l.* of British money, or 900 francs,—the English 10*l.*

Those examined at the school of pharmacy, may practise in any part of the territory of France

Those examined by the jury can practise in their respective departments only.

VII. The officers of health may supply medicines, but not from open shops, in those places where there are no apothecaries.

VII. General practitioners act as apothecaries and chemists in England, but are not allowed to keep open shops in France, or to supply medicines unless where there is no apothecary. In this country, they live by selling medicines and quack nostrums, while in France, by fees, for their visits.

VIII. The prefects of police must print, every year, a list of legally qualified apothecaries, stating the christian and surname of practitioners, the date of their reception, and place of residence.

VIII. The British public is not protected from the knavery of those who call themselves surgeons, accoucheurs, and chemists; while in France, there is a list of all qualified persons, apothecaries, &c. in the hands of the police, and no one else is allowed to practise. Were a census taken of the profession in London at present, fully one half would be found pretenders who assume the medical titles and impose on the public.

IX. In cities in which there are schools of pharmacy, two doctors and professors of the school of medicine, accompanied by the members of the school of pharmacy, and assisted by a commissary of police, shall visit, once a year, the shops of apothecaries and druggists, to examine and verify the good quality of drugs and medicines, both simple and compound.

IX. The inspection of apothecaries' shops in London, Edinburgh, and Dublin, is made by two of the censors of the Colleges of Physicians, and two of the Apothecaries' Company, and is the broadest farce that can be imagigined. The College and Hall are on the best terms, for reasons best known to themselves, being brother monopolists, and long accustomed to play into each other's hands; and hence, however bad may be drugs, provided the owner says they were purchased from the Company, nothing more is said. This was published by an honoured censor of the College a short time since, and gave mortal offence. It could not be denied, for he was one of the inspectors. He was however put in *Coventry* for his temerity.

X. Apothecaries and druggists must freely admit the inspection of their shops and laboratories, and all bad or adulterated drugs or medicines are to be seized by the commissary of police, and fines inflicted according to law.

The same inspection is to take place in the provinces.

X. But there is no law to sanction the inspection of drugs and medicines in the shops and laboratories of chemists and druggists; and, therefore, medicines are so much adulterated, that it is absolutely impossible to depend upon them. Thousands of lives are sacrificed amongst us by this nefarious system. If a police magistrate ac-

XI. The apothecaries shall not vend medicines, unless on the prescriptions of doctors in medicine and surgery, or those of officers of health. They shall not sell secret or quack medicines; and they shall prepare all medicines as ordered by the pharmacopœia of Paris.

companied the inspectors of apothecaries' shops, bad medicines would be seized, and the owners punished; and it must be obvious to every man of common sense, that the shops of chemists, who are virtually the English and like French apothecaries of the day, should be regularly inspected. Such inspection should also be made in the counties.

XI. The French apothecary is not allowed to vend quack medicines; while most of the English general practitioners, licentiates of the Hall, sell every description of quack nostrums. All who keep open retail shops sell patent medicines, which they know in their consciences are either useless or injurious, by inducing the gulled purchasers to allow disease to advance until it becomes incurable. Yet this is the class of unprincipled men, who have the impudence and audacity to maintain that doctors, physicians, surgeons, and those respectable general practitioners, who keep private surgeries for supplying medicines to their own patients only, are their inferiors, and ought no longer to exist. This class, which is numerous, consists of young needy adventurers who have taken mortal offence because we have, in common with the Colleges of Physicians and Surgeons in London, condemned the system of unnecessarily drugging the sick, imposing quack nostrums on them, and lowering our noble profession to the trade of a paltry, unprincipled retailer of drugs and chemicals.

English apothecaries are officers of health, or general practitioners, and hence those of them who keep open shops prescribe as well as compound medicines. We have duly considered this point, and must declare our conviction that it would be much more respectable for general practitioners to receive the sum paid for medicine in fees than in the present way.

If they condescend to act as chemists, and infringe on that body by the sale of chemicals, they are on a level with that body, must expect

XII. Grocers and druggists shall not sell any medicine, or pharmaceutical preparations, under a penalty of 500 francs, or 20*l.* British, for each offence. They may, however, vend drugs in their simple state, but not according to apothecaries' weights.

XIII. Poisonous substances, as arsenic, corrosive sublimate, &c. must be kept in the shops of apothecaries, druggists, and grocers, in a distinct and separate place from common drugs, of which places the masters shall keep the key, so as no other individual can dispose of them. These substances must not be sold to persons unless well known, in whose profession or trade such are required, under a penalty of 3000 francs, or 120*l.* and a list of the names of such persons must be kept and furnished to the police, under a like penalty.

XIV. All exhibitions of quack medicines, in cities or towns, are strictly prohibited, under a fine, enforced by the police, of a sum from 25 to 600 francs, from 1*l.* to 24*l.*; and for a repetition of the offence, the penalty is from two to ten days' imprisonment.

retaliation, and are tradesmen as well as members of a learned profession, which always was, and ever will be, considered an incompatible union.

XII. Chemists and druggists act as apothecaries or general practitioners in England. They do not receive a medical education; they prepare physicians' prescriptions, they prescribe over their counters, they bleed, extract teeth, and practise midwifery. In France they are liable to a fine of 500 francs, or 20*l.* for selling pharmaceutical preparations; they are allowed to sell drugs in their natural condition, but not by apothecaries' weights.

XIII. Poisons are indiscriminately sold to the public in London and all parts of the kingdom; and hence the horrible consequences, as detailed every morning in the newspapers. The detested resurrectionist succeeded in destroying his victims by laudanum; the house breaker employs it, the ruined gambler procures it, or prussic acid; it, or some other deleterious drug, is administered to procure abortion, because the law does not compel the vender of medicines to withhold all that are dangerous, unless ordered in the prescription of a physician or surgeon. While poisons must not be sold in France under a penalty of 120*l.* or 3000 francs, unless to reputable persons, in whose trades arsenic, corrosive sublimate, &c., may be indispensable; and even then a list of such persons must be kept and furnished to the police under the like penalty.

XIV. Quacks, and their nostrums, called patent medicines, are tolerated amongst us. The colleges have no power over the one or the other; every illiterate fellow may call himself doctor, proclaim in the newspapers an infallible cure for all diseases; gull the host of unthinking fools that constitutes nine-tenths of the public; spend 10,000*l.* a year in advertisements and stamp duty; and be aided by the greedy class of apothecaries already described in puffing off and vending his nostrum for lucre. If we look at the Times newspaper, we frequently observe two columns of

quack advertisements, including empirics' puffs, infallible medicines, and treatises on certain complaints; and if we consider the advertisement duty, and stamp duty on patent, or secret or quack medicines, and bear in mind that in London alone it amounted to 30,000*l.*, the gross sum in Great Britain and Ireland must be 90,000*l.* a year.

XV. Physicians, surgeons, and apothecaries to the army, must have been five years in practice before they are eligible.

There are also Boards for the admission of recruits and the discharge of invalids.

XV. Physicians or surgeons to the army and navy must be doctors, or members of the College of Surgeons, but are eligible on receiving the degree or diploma. There are army and navy boards in this country.

XVI. The fees of junior doctors in medicine and surgery vary from one to five francs a visit or operation, and gradually increase to 10, 15, and 20 francs a visit; and when the practitioner becomes eminent, he is remunerated as in the British dominions.

The fee of officers of health is from one to three francs a visit, and so in proportion to ten francs.

In criminal cases, the fees are as follows:—Doctor in medicine or surgery, or of an officer of health, three francs a visit; for an operation, five francs.

XVI. The fees of the profession in this country are exorbitant for the bulk of society. The young physician and surgeon must, by usage, receive a guinea a visit, while in France he receives a shilling; the most eminent will attend for a guinea, and consequently the juniors have no chance of employment. This system is evidently bad; even eminent physicians and surgeons have found it so, and now will take half a sovereign as a fee at their own houses, while others will ride in their carriages and pay two visits for it to those in humble circumstances. Those of considerable reputation pay two visits for one fee; and some of them, if the patient be comfortable, as many as four. This is adopting the French plan. If young physicians and surgeons would invariably receive five shillings a visit or consultation, they would be much more wealthy and experienced than they are under the present system. The clergy will receive tithes even from the poor and needy; the junior, or chamber lawyers, will receive ten shilling fees; the solicitors still smaller; the naval and military officers have pay according to rank; but the physicians and consulting surgeons have, until lately, shut their eyes on their own interests. Several of this class are now considering the propriety of giving advice, at their own houses, to those in slender circumstances, for half a crown or a crown for each visit.

Of course a half sovereign would be expected from respectable persons. There are in France, and also in these countries, eminent practitioners who must receive large fees for consultations, visits to the country, and capital surgical operations

XVII. All medical professorships, appointments to hospitals, &c., are to be filled up by public examination of candidates before a medical jury, composed of professors, or medical officers of hospitals; and he who is best qualified, in the opinion of two-thirds of the jury, is elected.

XVII. Almost all medical professorships, hospital and dispensary appointments, are filled by the grossest jobbing in the United Kingdom. Private interest, family connexions, and often political principles, determine the election. The learning, acquirements, experience, eminence of candidates, go for nothing;—a party determines the decision, and a favorite, however unqualified, is selected. The French plan is admirable, and well worthy of adoption.

MEDICAL SOCIETY OF LONDON.

Monday, Feb. 24th, 1833.

DR. BURNE, President, in the Chair.

Living Hydatids presented to the Society—Exhibition of Baron Heurteloup's Lithotritic Instruments.

THE Minutes of the last meeting were read and confirmed.

Dr. Hendy related a case of brachial presentation, for which a midwife cut off the arm of the child while alive, and caused its death. He found the other arm presenting, and experienced some difficulty in turning He informed the coroner, magistrates, and chairman of one of the Irish counties of the affair, but they knew no law to warrant their interference.

Mr. Burt, Mr. Proctor, Mr. Headland, and Dr. Williams, put some questions to the narrator, to which he was about to reply, when

Mr. Stevens entered the meeting, and requested permission to interrupt the proceedings, as he had something to place before the Society which could not admit of a moment's delay. He had some hydatids alive in a bottle, which he had just removed from the mesentery; and as the vitality of these parasites was disputed, he thought it important to determine the point. He then poured the hydatids from the bottle into a basin of tepid water, when, much to the gratification of the whole of the meeting, they were seen to expand and contract, especially about the head and neck.

Mr. Brook then exhibited the lithotritic instruments of Baron Heurteloup to the Society, and described the steps of the operation for lithotrity very minutely. He very unfairly assigned all merit to the Baron, and scarcely any to Civiale or Costello. He dwelt upon the value of the Baron's bed, and placed a young gentleman on it to illustrate its utility. The speaker went into the various minutiæ of lithotrity, and was listened to with great attention

We think his laudation of the bed hyperbolical. This apparatus has only one advantage, and that is, its head may be lowered so as to facilitate the grasping of the stone in certain cases. At the end of it is a fixed vice for securing the lithotrite. This contrivance must be highly dangerous on account of the involuntary movements of the patient. We have repeatedly

seen Mr. Costello perform lithotrity, and so restless were some of the patients, that had the lithotrite been perfectly fixed, great mischief must have resulted. Dr. Civiale raised the same objection, when the apparatus in question was first proposed. According to Mr. Brook, it was liable to no objection.

Review.

The Cyclopædia of Practical Medicine. Part XIV. Sherwood.

THE present number exhibits the same excellences and the same defects, which characterize all those that have as yet appeared. We feel pursuaded that this work will always be worthy very high consideration, and that it is a most important addition to our literature; for it contains a number of excellent essays, upon various important topics, from some of the most distinguished medical writers of the day. As an encyclopædia, or as a dictionary, we think it to be a most complete failure. It is, in that point of view, inferior to Dr. Copland's Medical Dictionary, and even to Dr. Parr's Medical Dictionary, or even to Dr. Hooper's improvement on Quincy's Lexicon Medicum:—as a work of reference, it is, in fact, of no use whatever. There is the same general want of harmony and of keeping, throughout this number, that there is in the rest. While some of the articles are diffuse on points of minor importance, others again are meagre and superficial.

The best essay in the number, now before us, is from the pen of Dr. Carswell, on Melanosis; it exhibits an intimate acquaintance with the phœnomena of disease, and displays reading, observation, and reflection. His remarks on true melanosis are excellent, and the minuteness with which he has treated his subject deserves every testimony of approbation. On spurious melanosis, we must observe, that although he alludes to a paper in the Philosophical Transactions, by Dr. George Pearson, not Mr. Pearson, he does not seem aware that the doctor, not only *entertained the opinion*, "that the black discoloration of the pulmonary tissue originated in the inhalation of the carbonaceous product of ordinary combustion," but, that he actually separated charcoal from the lungs, more especially in one subject, whose death was occasioned by most extensively diffused tubercles; and that this person had been a smoker of tobacco for upwards of twenty years.

The case given by the late Dr. Gregory, and the analysis of the black matter by Dr. Christison, are mere confirmations of the numerous observations and experiments made by that excellent man, George Pearson, not only on the lungs of the human subject, but upon those of the horse and the ass. To this paper, in the Philosophical Transactions, page 159, for the year 1813, we refer Dr. Carswell, for although we know, from his allusion to it, he is aware of its existence, we do not think he can lately have perused it, or he would have seen how completely it coincides with his own judgment; and that Dr. Pearson sums up the result of his experiments in these words,—"From the properties above manifested, I am entitled to declare, the black matter obtained from the bronchial glands, and from the lungs, to be animal charcoal in the uncombined state, i.e. not existing as a constituent ingredient of organized animal solids or fluids."

Dr. Cheyne's paper on Laryngitis next attracted our attention; it is well written, and contains some very important cases. He has merely alluded, however, to the one of Mr. Price, which ought to have been transcribed into a Cyclopædia, as it is one of the most interesting cases that ever was submitted to the profession. Although it is to be found both in the monthly series, and also in the analytical series of the Medico-Chirurgical Review, it should be recorded in every collection of information on laryngitis: for intensity of interest, it has no parallel in the annals of sur-

gery. We believe it to be from the pen of Dr. James Johnson, who bore no small share in the treatment of this singular case. We should have been better pleased had Dr. Conolly been more diffuse on a subject in which he is evidently admirably informed and eloquent. The principles of practical medicine would have admitted further illustration, and any remarks would have been acceptable to the profession from the late distinguished Professor of the London University.

We are by no means pleased with the article on Jaundice, whilst Dr. Carswell has found ample supply for twenty pages on melanosis, a subject which has, as yet, met with but little attention, can we be satisfied that a disease so common, and involving so many interesting questions, should be passed over, together with all that can be said on biliary concretions, in six pages: there is a haste and carelessness visible throughout it.

Although we have thus ventured to express our opinion, we are still alive to the merits of each paper, and should recommend every member of the profession to possess himself of the Parts as they issue from the press. Most of the authors have kept pace with the learning of the age; and though there is undoubtedly something to condemn, there is infinitely more to praise. Our limits, unfortunately, do not allow us an opportunity of analysing each paper, but we shall seek an occasion of giving our opinions upon the different articles.

Hospital Reports.

GUY'S HOSPITAL.

Lithotomy

Wm. Elmore, ætat. six, when an infant, had two attacks of inflammation of the lungs; he is always suffering from constipated bowels; has had symptoms of stone in the bladder for the last sixteen months, during which time he was sounded by two surgeons, who were unable to detect a calculus. Six weeks ago he became a patient at the Deptford Dispensary, and the resident surgeon, on sounding him, immediately discovered a stone. There was, at this time, great irritability of the bladder, which subsided upon the exhibition of alkalies and an opiate. Three weeks ago he came into Guy's Hospital, under the care of Mr. B. Cooper, who sounded him, and detected a stone. At this time his bowels were constipated, the dejections unhealthy, and very offensive; medicine was therefore administered to improve the secretions. Since his admission, his health has been gradually improving, and the hardness of the abdomen has entirely disappeared.

Tuesday, Feb. 26. The operation was performed in the usual way, with the straight staff and knife, and lasted two minutes and forty-seven seconds. The bladder was remarkably capacious, and the perineum was deeper than usual in children.

CORRESPONDENTS.

Mr. Lunn.—The letter did not reach us in time for publication.

A Pupil.—We have not room for the Esculapian Reflections at present. The writer must keep close to medical topics.

Mr. K.—Our leaders were in type, and our last sheet at press, when our correspondent's letter arrived.

Mr. Jackson.—The translation of Blumenbach or Cuvier's.

J. L. M. C.—We should like to see a specimen.

Mr. Dermott's Letter and Petition in our next.

List of Books next week.

Damages and Costs against Dr. Ryan for defending the honour and dignity of the Medical Profession nearly £800.

Amount of Subscriptions already received in aid of Dr. Ryan . .	£211	11	0
F. C. H.	2	0	0
A. C. B.	1	0	0
A Student at the London University	0	10	0

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 59. SATURDAY, MARCH 16, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXVII., DELIVERED DEC. 5, 1832.

Gentlemen,—The rule that I mentioned to you at our last meeting, respecting the treatment of a punctured, or partially divided artery, namely, that *there should be two ligatures applied, one above and the other below the wound in the vessel*, is one that you ought never to forget. I told you, however, of an instance, in which I deemed it advisable to deviate from this generally excellent maxim; a case, in which the popliteal artery had been injured by the passage of a musket-ball across the ham, and afterwards gave way; but this example was selected as an exception to the common plan, because great inflammation existed in the ham, and it was conceived, that, on this account, an effusion of coagulating lymph within the artery might partly have obliterated the lower continuation of it. Besides, an operation on the swollen and inflamed parts in the ham would have led to dangerous consequences. You take up completely divided arteries with the tenaculum, or forceps, and hold them in this way until they are tied; but when an artery is only punctured, then you cannot proceed in this manner, but you must pass the ligature under the vessel by means of an aneurismal needle, or a common eye-probe. The latter, which answers the purpose very well, is an instrument which you would always have at hand, and perhaps you might not have the other with you when called to a sudden accident. If a probe is to be employed, you put the ligature through the eye, and then give the instrument such a bend, as will allow it to pass conveniently under the vessel. The artery should first be completely exposed, and its sheath opened; the probe is passed under the artery, furnished with a double ligature, which is to be drawn under the vessel. You next cut off the instrument with a pair of scissors, and tie one of the ligatures above the wound, and the other below it.

Gentlemen, another means of stopping hæmorrhage is *compression*, not with the tourniquet, because that is only a temporary expedient, and not applied directly to the injured part of the vessel, but at some distance from it towards the heart. The compression, to which I now allude, is such as is applied immediately to the bleeding part. When hæmorrhage takes place from a number of small vessels, when there is only a general *oozing* of blood, or when the bleeding is from a large vein, and not from a considerable artery, compression will frequently be the right mode of treatment. In such cases, it should be preferred to the ligature; indeed, for the suppression of bleeding from arteries under a certain size, pressure will be sufficient, and the introduction of extraneous matter into the wound, by the employment of a ligature unnecessarily, would be but indifferent surgery. I have known compression answer even with the radial artery; but, in such a case, I should not recommend you to confide in pressure. On the contrary, I think, that the radial artery, when wounded, ought to be tied, because, though I have known it to be obliterated by pressure, yet I have seen other instances, where the patients nearly lost their lives, from repeated returns of the bleeding after this practice had been employed. Cases are recorded, where the brachial artery was wounded by the point of the lancet in venesection, and the bleeding stopped, and the puncture in the vessel obliterated by compression applied directly after the injury had been received. The only reason you can have for trying compression in instances of this kind is, that you may save the patient from the necessity of submitting to a surgical operation for the exposure and ligature of the artery: however, in these examples compression would not be advisable, if

there were much effusion of blood in the celluar membrane, because that would prevent the compression from acting efficiently and precisely upon the injured part of the artery, and would be a considerable obstacle to the success of the plan. I should say, therefore, gentlemen, that it would not be judicious to attempt to arrest the hæmorrhage by compression, when much blood is already effused in the cellular membrane of the limb, and that the practice would only be right, if you happened to be present at the moment of the accident, or immediately after its occurrence, before the limb had become gorged with extravasated blood. In a case of this description, the pressure is made by means of what is called the *graduated compress*. This formerly consisted of three or four pieces of money of different sizes; you put the smallest coin, wrapped up in a bit of lint, over the artery, you then apply above that a larger piece of money, and, over the latter, one of still greater diameter, secured with a roller, so that the compress is of a conical form, with its narrow part over the wound in the artery. Until the graduated compress were ready, you would of course apply the tourniquet, so as to prevent further loss of blood. This would also give you time to consider what plan might promise to be most advantageous, whether compression, or the ligature; in short, it would enable you to act with coolness and deliberation. Having secured the artery by compression, in the manner described, you must unscrew the tourniquet, to see if the bleeding be stopped. Another precaution, which you would not neglect, is that of feeling the pulse at the wrist, in order to satisfy yourself, that the pressure you have employed is not such as to create a risk of mortification, by completely impeding the flow of blood through the limb. You are then to keep the arm as quiet as possible in a sling; for if the limb were moved about, the process of reparation in the artery would be likely to be disturbed and impeded. Now, if the artery could be kept perfectly quiet for forty-eight hours, without any return of hæmorrhage, there would be a considerable chance of the wound in it being healed. Examples of such success are known to have occurred; but the cure, or reparation of the injury of the artery, does not take place in the way sometimes suspected in former days, that is, with the artery still remaining pervious after the puncture in it has closed. In truth, the artery is obliterated; and you could hardly expect any other result where compression, like what I have described, is adopted. When large arteries are punctured, pressure is less to be depended on than the ligature. The action of pressure cannot be confined with sufficient steadiness to the exact point required, whereas the ligature, duly put on, never shifts its place; it operates on the artery with certainty and constancy, and hence, it is allowed by all surgeons of judgment and experience, to be the most effectual means for securing large vessels.

A compress is frequently prevented from acting on the artery by the effusion of blood in the cellular membrane previously to its application. Thus its operation is often prevented from extending to the opening in the vessel. When the brachial artery has been treated in this manner, without success, the external wound may have healed; but either an aneurism follows, or, if the effusion of the blood be so great as materially to affect the circulation, or the pressure of the bandage such as to have a similar effect, the limb may mortify. You see, then, gentlemen, that the practice of compression is not entirely safe.

Forty or fifty years ago, surgeons occasionally tried to stop bleeding with *agaric*, which was imagined to have a specific power of arresting hæmorrhage; but no modern surgeons entertain this notion; and they know, that when agaric succeeded, or appeared to succeed, the stoppage of the hæmorrhage was to be attributed, rather to the compression employed in conjunction with it, than to any peculiar quality of the agaric itself. As agaric was put directly on the mouth of the bleeding artery, it was highly objectionable, because it produced considerable irritation of the wound, and interfered with the measures calculated to procure union by the first intention.

Another article, sometimes employed at the present day, is *sponge*. This substance is occasionally used to suppress bleeding after operations about the rectum: here you cannot get at the bleeding arteries so as to tie them, and you therefore try the effect of distending the bowel with sponge. The same article is also used to suppress excessive bleeding from the socket of a tooth brought on by its extraction. Sponge is employed in surgery as a means of checking hæmorrhage after the operation of lithotomy, in which case a piece of it is introduced deeply into the wound with a cannula in its centre, designed to allow the urine to escape. Sponge is convenient for the suppression of violent bleeding from the nose, which will not yield to cold applications, styptics, and other common means. You must then plug up the posterior aperture of the nares, on the side towards the fauces, so as to prevent the blood from escaping in that direction; and you are next to plug up the corresponding nostril. You see that sponge acts on the principle of distending cavities, and filling up openings, for which purposes it is very well qualified, by its property of expanding considerably as soon as it is moistened.

It was formerly the custom to use the *actual cautery* as a means of stopping hæmorrhage, and even now it is sometimes employed for the suppression of bleeding from the mouth, or of that arising from operations on the antrum. Recourse to the actual cautery is deemed admissible for the very profuse and rapidly fatal bleeding, which is disposed to follow the removal of certain *nævi*. My friend, Dr. Elliotson, mentions a case, in which, if the actual cautery had not been employed to sub-

due the hæmorrhage arising from some leech-bites, the patient would have died. Instead of this method, some practitioners would have applied dentist's silk with a small needle completely round the bleeding points, but this practice may be as painful as the other.

As for the *potential cautery*, or *caustic*, it is hardly ever used at present, as a means of stopping hæmorrhage: it cannot be depended upon so much as the actual cautery; it is more difficult to regulate its action; and it produces vast irritation.

Styptics are used chiefly when the vessels are diseased, and have lost their disposition to contract. The styptics in greatest favour are the *diluted sulphuric acid*, solutions of *alum*, *sulphate of copper*, or *sulphate of iron*, the *tincture of myrrh*, *Armenian bole*, &c. Styptics should never be applied to large arteries, as they will never succeed; and either the ligature or compression must be employed. Nor to smaller arteries, if they are healthy, ought you to apply styptics; for cold applications and moderate pressure answer, without creating any kind of irritation. Styptics are sometimes used to suppress bleeding in situations where you cannot get at the vessels so as to employ pressure sufficiently, as in the sockets of the teeth. However, styptics may be occasionally advantageous, as when bleeding takes place from diseased surfaces, and when the arteries themselves are diseased. I have seen many profuse bleedings from the groin stopped by Armenian bole, a strong solution of the nitrate of silver, diluted sulphuric acid, and other styptics; but if the vessels are healthy, I consider the practice injudicious, because productive of a great deal of pain and irritation.

There is one case, in which a certain method is employed, which is not followed in any other instance, namely, when the bleeding from the temporal artery, after arteriotomy, cannot be stopped by compression, surgeons frequently cut the vessel completely across, in order to let its ends retract, after which the hæmorrhage usually ceases. I ought to have explained, when speaking of compression, that when a bleeding artery can be compressed against the hard surface of a bone, a ligature may sometimes be dispensed with, even though the artery be large. The temporal artery is one so situated, and therefore its bleeding may occasionally be stopped by compression; but when compression will not avail, it must then be completely divided, its extremities allowed to retract, and then the hæmorrhage will frequently cease.

Gentlemen, the next plan I shall notice is the *torsion* of arteries. When a limb has been torn off, or much contused and lacerated, considerable arteries may be injured and no bleeding follow; and there can be no doubt, that it was the recollection of this circumstance which induced some of the French surgeons, namely, Velpeau, Thierry, and Amussat, to try the effect of twisting and contusing the divided extremity of the artery for the purpose of stopping hæmorrhage from stumps, and wounds in general. The plans used by the surgeons whom I have specified, are not precisely alike; Thierry merely twists the small arteries round five or six times, and the larger ones ten or twelve times; but Amussat follows another method, which is more complicated, for he first takes hold of the artery with one pair of forceps, and draws its extremity some way out of the wound, so as to separate the vessel from any adjacent vein or nerve; he then takes hold of it with another forceps, with which he presses the artery firmly, so as to divide or produce a solution of continuity in the inner and middle coats. Afterwards, while he is still holding it with the first pair of forceps, he moves the other pair downwards towards the surface of the wound, which manœuvre has the effect of separating the internal and middle coats from the external one. In fact, the middle and inner coats are thus made to form duplicatures, or folds. Having thus separated these coats from the outer one, the operator next twists the external coat five or six times round, with the upper pair of forceps. The principal impediment to the hæmorrhage arises from the duplicature of the two inner coats, after their separation from the external one; for, by their retraction and doubling, they constitute a kind of valve within it; but, for the sake of greater security, Amussat twists the cellular tunic in the way I have described. The torsion of arteries has, as yet, gained no advocates in this country, at least, none that I have heard of. If you look over the cases published by Amussat himself, and the reports collected by his countryman, Manec, you will see, that this practice is not equal to the ligature: indeed many of those cases were followed by secondary hæmorrhage, which seems to be a fatal objection to the practice; for, though it may seem to have an advantage over the ligature by there being no extraneous substance left in the wound; yet, if it more frequently fail than the ligature in preventing hæmorrhage, which is the main object in view, it ought certainly to be rejected. Now the reports of this practice, received from abroad, prove that bleeding occurs more frequently after torsion, than after the ligature. Manec's statements leave, I think, no doubt on this most interesting point. In fact, torsion has no advantage over the ligature, even on the ground of there being no extraneous matter left in the wound; for the practice is altogether repugnant to the wise principles of Dr. Jones, who strongly insists upon our disturbing the artery, about to be secured, as little as possible; yet torsion bruises and injures the vessel in such a degree, that a portion of it is generally converted into a slough, which is in reality as much a foreign body in the wound as the ligature itself. From experiments performed on animals by Manec, it appears, that wounds are longer in healing, and suppurate more profusely, when torsion is employed, than when the arteries are secured with liga-

tures. For the reasons, which I have assigned, the plan does not seem likely to gain many advocates in England.

Now, gentlemen, one rule may be said to extend to every kind of wound,—to the most trivial, such as a slight cut of the finger, as well as to others of considerable extent, like the wound produced by the extirpation of a large tumour, or that occasioned by the amputation of a thigh,—namely, *to stop the hæmorrhage.* This must be done without delay, or your patient may die in a few minutes. Having fulfilled this primary indication, your next object, if the wound be of the incised kind, is to endeavour to bring about as speedy a union of it as possible. It is in these two points that modern surgeons are so superior to their predecessors; they have sounder information and more correct opinions about the right methods of stopping hæmorrhage, and of procuring a prompt union of wounds. Gentlemen, if you wish to be successful in accomplishing the union of wounds without supuration, be sure not to neglect the important maxim of freeing them from all foreign bodies and extraneous matter, before you bring their sides together. Then the first indication in the treatment of wounds will be *to stop the hæmorrhage*; the second, *to remove all extraneous substances from them and to render them as clean as possible;* the third, *to heal the wound as expeditiously as its nature will permit;* and if it be an incised wound, we should endeavour to effect this by bringing its opposite surfaces together, so that they may grow together without suppuration. I shall not here dilate on the necessity of removing such extraneous bodies as are now and then found in incised wounds, such as bits of glass, china, &c., because I spoke of them in a former lecture. An incised wound, made with a clean sharp instrument that does not break, can manifestly have no foreign body in it; but when it has been produced in drawing corks, cleaning windows, falling down with china, &c., the wound, though an incised one, may be complicated with the lodgment of foreign bodies; and if you neglect to remove them, before you close the wound, they would be likely to cause inflammation and abscesses, and the attempt to find and remove them afterwards would be more difficult.

Gentlemen, the treatment of incised wounds embraces one particular indication, which, like that of removing foreign bodies, is dictated by the fact of its promoting union by the first intention, or the cure without suppuration. I allude to the useful *plan of clearing the surface of the wound from blood.* It is now well known, that clots of blood are unfavourable to union by the first intention; a statement, it is true, in opposition to the opinion of Mr. John Hunter, but admitted as an undoubted fact by the best practical surgeons. Mr. Hunter's doctrine is, that, whenever a quantity of blood stagnates in the living body, it has a tendency to become organized and vascular; this was his belief, and one that is yet maintained by Andral and some other distinguished pathologists. Hunter never suspected that a clot of blood in a recent wound might act rather as an extraneous substance, and keep the surfaces apart. Preparations are to be met with, in illustration of the doctrine, that blood, on the surface of a wound, may become organized under certain circumstances; and Bouillaud met with a coagulum of blood in the right auricle of the heart, pervaded by an infinite number of vessels, which were filled with a red fluid.

In the Hunterian Museum, at the College of Surgeons, are several preparations, put up by Mr. Hunter himself, which, he conceived, demonstrate the possibility of coagula becoming vascular and organized; there is one preparation of a coagulum on the surface of a stump, which appears to have vessels in it, and these vessels seem as if they were injected; there is another of a clot of blood on the surface of the testicle, which Mr. Hunter looked upon as vascular. However, these views are not adopted by other observers; they think there is some deception in the preparations alluded to, and that coagula of blood are not so disposed to become vascular, as the Hunterian doctrines would lead you to suppose. You will find, that when blood has been effused into any part of the living body, its presence excites the adhesive inflammation, and coagulating lymph is poured out round the clot, and it is into this lymph, surrounding the clot, that the vessels proceed, and not into the clot itself. This is the view taken of the subject by Sir Astley Cooper; he has examined various specimens in support of Hunter's doctrine, and believes, that they only demonstrate vascularity of the coagulating lymph, and not of the coagulum of blood.

Now, gentlemen, the leaving of any blood in the wound must be objectionable, because clots of blood are at any rate less disposed to become organized, than coagulating lymph, and their presence in the wound must also be injurious, because they separate the two surfaces, —they are interposed between them—and must therefore be more or less an obstacle to their union. For my own part, I think that it would be a great improvement in surgery if practitioners were not to be in such a hurry to dress and bind up the wounds resulting from operations; they should allow a little more time for the oozing of blood to cease, and then they would be less likely to have the cavities of such wounds filled with coagula. On this subject, I would recommend you to consult a valuable article, published in the Edinburgh Medical Journal, by Mr. Syme, who deserves the highest commendation for the zeal with which he cultivates his profession. By removing coagula and waiting till the oozing of blood has stopped, you will be more sure to have coagulating lymph as the immediate uniting medium, and union by the first intention will commence under the most favourable circum-

stances. Another reason, in favour of waiting a short time before you close and dress the wound, is, that you will thus have the best chance of detecting any concealed arteries yet requiring to be tied, and which, if not secured now, might afterwards bleed, and oblige you, perhaps, to open the wound again. However, you must not wait too long, because, as you cannot fail to understand, from what I observed with regard to suppuration, that if a raw surface be left exposed to the air beyond a certain time, suppuration will be the inevitable result; you may safely wait, perhaps, five or ten minutes, to let the oozing of blood cease; but, after this little delay, you must dress the wound.

Now, gentlemen, having stopped the bleeding, and removed all extraneous substances, the next indication is to bring the sides of the wound together, and to keep them in that position till they have grown together: of course, you must do this within a moderate time, for a long exposure of the surfaces of the wound to the atmosphere would lead to suppuration.

Wounds heal in two ways; or, I may say, that there are two processes, contributing, under different circumstances, to the repair of the wounded part: the first is, where the opposite surfaces of the wound are brought into exact contact, and unite without any suppuration. If you succeed in bringing the two sides of a wound in contact at every point, as exemplified in many cuts of the fingers, there may be no formation of pus; and the part will be healed in a few hours. Success, almost equal to this, is sometimes obtained after amputations where the surfaces of the wound are brought accurately together at every point, and sometimes unite without any suppuration, except in the situation of the ligatures: here of course there must be a degree of suppuration. This first mode in which wounds heal, is what I have frequently alluded to under the name of *union by the first intention;* it is also sometimes called the *cure by adhesion*, or by the *adhesive inflammation*, because it is accomplished by the same process as leads to the formation of those adhesions, which are so frequently noticed between different parts of the internal cavities of the body, namely, by the effusion of coagulating lymph between the surfaces of serous membranes, which lymph becomes organized and glues them permanently together. In the other mode of cure, the parts do not grow together again in a direct manner; but the inflammation exceeds the degree required for adhesion, either in consequence of the presence of extraneous bodies, or in consequence of the contusion and laceration of the parts, or of great loss of substance, producing such an interspace as prevents the parts from being placed in contact. Then the process of healing is different, and more complex, consisting of *suppuration*, the production of *granulations*, and *the formation of new skin*. You have first suppuration, which is followed by granulation, and these processes are essential to *cicatrization*, or the production of new skin and cuticle; so that this process is, I have stated, more complicated than the first. The process comprises, then, suppuration, granulation, and cicatrization; but there is also another operation concerned, and that is, the contraction of the granulations, by which the edges of the old skin are drawn over the wound, so that less new skin is required: and this is a valuable advantage, because the old skin is stronger and more calculated to bear injury, than the new, and is less likely to ulcerate.

Union by the first intention should always be preferred, when practicable; first, because it is the most expeditious way of cure; secondly, it is attended with the least degree of pain, and so slight is the inflammation essentially connected with it, that doubts are sometimes entertained whether it is joined with any inflammatory action at all; thirdly, it is the most perfect mode of cure, because the part is covered entirely by old skin, the edges of which are brought in contact; fourthly, it leaves little or no disfigurement, for the cicatrix is hardly seen after union by the first intention,—it is merely a line, and can hardly be said to be a disfigurement at all.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE XIV.

Pathology of the Nervous System—Neuralgia—Spasms—Phthisis—Epidemic Diseases.

Gentlemen,—At our last meeting I spoke of the pathology of nervous affections, and detailed the reasons which induced me to form the opinion, that many of them commence in the peripheral extremities, and afterwards spread towards the centre; I also alluded briefly to some of the practical inferences, to which this view of the subject would conduct us. A few additional observations will conclude what I intended to advance in support of my propositions.

The paralysis of the insane, first described by Esquirol, and spoken of by Andral *, in his admirable lectures on monomania, offers another instance of creeping paralysis, of palsy travelling from the circumference towards the centre †.

* See his lectures as reported in the Lancet.

† I think it is quite evident, that many of the cases described by Rostan as examples of

This disease is most common in that species of derangement termed idiotcy, and it has been remarked, that those whose insanity was caused by venereal excesses, whether males or females, by sexual connexion, or by masturbation, and those in whom it was occasioned by habits of intoxication, were the most liable to this disease. M. Esquirol also believes, that it is a peculiar consequence of the abuse of mercury.

When we recollect, that, in idiotcy, there is no vascular excitement, no paroxysms of violence, no determination of blood to the head, and no head-ache, we must allow that this species of paralysis is of most frequent occurrence in that variety of mental alienation, which is least likely to be produced by a local disease in the nervous centres, capable of giving rise to a paralytic affection of the circumferential parts. When we accurately examine the march and progress of this paralysis, we find it attended by many circumstances clearly denoting its origin in the nervous extremities, notwithstanding what some French pathologists have asserted to the contrary:—the slow manner in which it creeps from one part to another; the fact that, after the disease has occasioned an almost complete loss of power in the lower extremities, the weakness may, on some days or hours, be less remarkable, or even disappear altogether; so effectually, indeed, that if, for experiment, you endeavour to throw the patient down, he will give very powerful resistance. In this circumstance, says Andral, emphatically, we find the proof of the absence of any organic lesion. Another proof of its not depending on any lesion of the nervous centres is derived from the very extent to which it may arrive, for, in the third stage of the disease, the paralysis is complete and general, including the four limbs, the tongue, and the voluntary muscles of the trunk. The involuntary muscles, too, especially those connected with the respiratory movements, become influenced; in this third and highest degree of the paralysis, convulsive movements may also occur, presenting the strange phenomenon of the alternate paralysis, and the complete contractility of the same voluntary and involuntary muscles, and of a voluntary muscle, which is perfectly disobedient to the will, being thrown into bizarre and unwonted motion by the involuntary impulse *. This fact, gentlemen, is in itself sufficient to prove the truth of the proposition I have advanced, that a morbid state of the nervous extremities is often unconnected with, and independent of, any central lesion.

In my own practice, cases of creeping paralysis, corroborating this conclusion, have occurred. Thus I saw, in consultation with Mr. Collis, a clergyman, all of whose extremities had gradually become affected with the slightest possible degree of paralysis, affecting both the motion and sensation, the latter rather more than the former. The progress of the disease was so irregular and gradual, it is so variable, and has now lasted so long, without any further increase in its intensity, that both Mr. Collis and myself have little doubt that the disease was unconnected with any lesion of the brain or spinal marrow.

The next part of our subject refers to facts showing that painful as well as paralytic affections, may travel, as it were, from the circumference of the nervous system towards its centre. Before we consider the proofs of this assertion, it may be well to remark, that it is not at all improbable that the brain and spinal marrow are not, more than the rest of the nervous system, exempted from the attacks of neuralgia, nay, I had almost said tic douloureux. This view of the subject has been too much, if not altogether neglected, and yet I am persuaded that I have seen cases, where pain in the head, back, or loins depended on a neuralgic and not an inflammatory, or congestive state of the brain or spinal marrow. But to return to our subject.

Mr. Hudson has furnished me with the details of a case, treated in this hospital, which has some bearing on the point in question. The patient, C. Nowlan, had an attack of acute gastric irritation, accompanied by great tenderness of the epigastrium, and, on examining the spine, we found a good deal of pain and soreness on pressing the three upper lumbar vertebræ. Looking on this as a disease which had its origin in the extremities of the nerves, and had been subsequently propagated to the spine, we directed our treatment to the primary seat of irritation; and you may remember how we succeeded by this means, not only in removing the epigastric tenderness but also the spinal affection. Another illustrative case presents itself in the person of a man, in the male accident ward, who had had compound fracture of the leg. It has been observed by the dresser, that sponging the granulations of his wound causes pain in the dorsum of the foot and great toe. A small branch, or a few trifling filaments, probably of the musculo-cutaneous nerve, is here irritated by the

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creeping palsy, caused by *ramollissement* of the brain, should rather be considered as cases of disease spreading from the extremities of the nervous system to the centre. The case of the old woman, named Dassonville, related by Rostan, was clearly of this nature. She had, for a year, experienced sensations of numbness in the lower extremities, and a slight diminution in their muscular power, so as to cause her gait to resemble a dragging of her legs rather than walking; during this period, too, her mind was a little impaired and weakened. This series of symptoms was closed by evident inflammation of the brain, ending in coma. I cannot but consider Rostan in error, when he attributes the former symptoms as produced by the same cause as the latter.

* Lancet, Feb. 9, 1833.

sponge, and yet you perceive this produces pain and irritation in a distinct nerve on the dorsum of the foot and great toe. Examples of the same kind are seen in nephritis, in which we find pain, numbness, and retraction of the testicle, and in irritation of the bladder from calculi, where pain is felt at the glans penis. In fact, all sympathetic pains are instances of irritation of one portion of the nervous extremities, travelling backwards, or towards the centre, so as to affect other and distant parts. Thus, when pain in the kidney produces a painful state of the testicle, when irritation of the bladder causes irritation at the glans penis, or when an inflammatory state of the liver gives rise to aching sensations about the acromion, or hip-joint disease to pain at the knee, we can in each find an exemplification of impressions made upon one part of the nervous extremities, influencing other parts in a similar manner, and constituting what have been termed sympathetic pains. It is wrong to suppose that it is necessary to have a direct nervous communication between the parts, in which irritation is primarily located, and those in which the derangement of function is subsequent or secondary. I have given some direct proofs, showing how irritation may run backwards from periphery to centre, and thence to circumferential parts again. It frequently happens, that we can observe a direct nervous communication between the seat of the disease and the localities sympathetically and subsequently affected, but this you are not to expect in every instance, nor is its existence necessary to account for the causes and varieties of nervous sympathy. Mr. Bell, in his admirable work on the teeth, gives the case of a French gentleman, which, as it is very much to the purpose, I shall beg leave to read for you. "A French gentleman, about 19 years of age, of a florid complexion, and a remarkably healthy appearance, consulted me under the following circumstances. He had been for some time affected with a slight degree of loss of power in the right arm, with occasional pain of that peculiar tingling kind, which is produced by pressure on a nerve. At length, he observed that an accession of one of these attacks was accompanied by an acute shooting pain in the second molar tooth of the lower jaw of the same side. This led to a more attentive examination of subsequent recurrences of the pain, and he found that whenever the tooth was pressed or irritated, the sensation in the arm returned. On examining the tooth, I found that by touching the interior of it with a pointed instrument, I produced an immediate return of this affection. Extraction of the tooth permanently removed the complaint." Here you have tingling pain and loss of power occurring in the arm, from an irritation seated in the extremities of the inferior dental nerve. Some years ago, about the time I entered college, I went down to the country to spend the vacation, and being out in a corn-field one day, took hold of a sickle and went to reap, but being a very indifferent workman, I gave myself a severe cut in the ball of the thumb. Just as the cut had healed, I got spasms in those four fingers, but the thumb was not at all affected. I was at that time just commencing my medical studies, and began immediately to read about the effects of wounds. I was sure I had tetanus. The spasms, or rather subsultus of the fingers, continued about three weeks, during which time the integuments over the roots of the nails on each of these fingers, but not on the thumb, became sore and red; a sort of suppuration taking place between the skin and nail: the latter was detached from its matrix, and of course the nails were lost. I had soon an opportunity of witnessing the curious process of regeneration in those parts, and the equitation of the old on the new nails. This is another instance of lesion of the nervous extremities produced by local injury, causing an affection of another and distinct set of nerves. You perceive, therefore, that not only pain and loss of power may arise in certain parts of the extremities of the nervous system, from an impression made upon other parts, but also spasms and convulsions. If you irritate the spinal column of an animal, you produce tetanus; but do we not every day see the same effect from a wound or injury of a local nature, where the irritation acts upon the terminating nervous filaments? Do we not observe that epilepsy commences sometimes with symptoms of local irritation, as well as with manifestations of excitement or derangement of the brain or spinal cord? A person notices frequently, on the accession of a fit, a peculiar kind of morbid sensation in some part of the body, generally in one of the arms, constituting what is called the *aura epileptica*. This spreads from the circumference towards the centre, and is followed by the convulsive motions which characterize the disease; but if you check its progress, by applying a tourniquet on the arm, you break the chain of abnormal action, and obviate the attack.

My friend, Dr. Townsend, has related to me the following particulars, occurring in a poor woman, who lived in Bow-street, Dublin. A cart went over her foot and instep, producing an extensive bruised wound. It healed; in two months after the cicatrix had been formed, she complained of what were esteemed rheumatic pains in the limbs. Observe, *she was forty-five years of age, and none of the family had ever been epileptic.* One morning, while sitting by the fire, she felt a curious sensation in the wounded leg, which soon after became agitated with violent convulsions. On the evening of that day she felt a stinging sensation in the cicatrix, which ascended along the limb towards the brain, and immediately after she was attacked with a violent epileptic fit. In progress of time, the number of these epileptic fits became extremely frequent (five in a night), and were always preceded by stinging in the cicatrix. The disease had lasted four years, when she

consulted two old women from the country, who were reported to have a cure for convulsions. As the result of *their* consultation, a blister was applied to the cicatrix This remedy did such service, that instead of having only three or four fits at night, she had now fifteen or seventeen! Now, this fact is most important; it proves, beyond a doubt, the locality of the *irritant* and its increased powers when stimulated.

I had forgotten to tell you that this person did not confine her consultations to *old women;* she sometimes had consulted physicians, who gave nitrate of silver, ammoniaret of copper, and the whole list of anti-epileptic remedies, but in vain. Dr. Townsend, more rational than either the old women or the physicians, and judging that the fits depended on the local irritation, tried the effect of ligature, immediately before the fits, as soon as the aura was felt. This stopped the fits entirely, and for four months they were kept off, by means of a *stick and cord* kept on the leg, and tightened by herself or her son. However, after four months, they thought that all danger of a relapse was over, and left off this precaution. The fit returned, and she died of the *first attack!*

I shall not at present speak of hydrophobia, which might be also brought forward in corroboration of the principles I advance, as I wish now to pass to the practical considerations which result from this view of nervous pathology. From the examples I have given of paralysis commencing in the nervous extremities, and creeping thence gradually towards the centre, so as to terminate in an affection of the spinal cord, or even the brain, you will perceive the necessity, in treating paralytic diseases, of not confining your attention, or directing your therapeutic means, exclusively to the central parts, but of applying them with reference to the origin of the complaint. It is too much the custom of practitioners, the moment they are called to a case of paralysis, to refer its phenomena to disease of the brain or spinal marrow, and conduct their plan of treatment in accordance with such views. This is, however, in many cases, erroneous; the application of remedies is frequently to be as energetically directed to the extremities as to the centres; and it is in striking a fair balance between these opposite modes, and adapting them to their distinct and appropriate exigencies, that constitutes the practice of the rational surgeon or physician.

I mentioned before a case of paralysis from an affection of the facial branches of the fifth nerve, which I attended with Mr. Crampton, and its successful treatment by blistering. The local application of strychnine has been also found beneficial in local paralysis; and I have observed very favourable results from the application to a vesicated surface. Some writers have recommended its employment in painters' colic; and I must say that it is an admirable medicine in all cases of paralysis which commence in the nervous extremities, whether it be amaurosis, creeping palsy, paralysis from lead or from cold. As far as my experience goes, strychnine, and probably sulphur also, are extremely useful where the disease originates in the peripheral extremites of the nerves; while, on the other hand, they appear to be of little advantage where the central parts are primarily engaged. However, as paralysis, arising in the centre, may continue to affect the extremities after the cause has been removed, this position is to be received with some exceptions. For instance, a clot of blood in the brain, which gives rise to a paralytic affection, may be removed by absorption, and no apparent lesion remain; yet some parts will remain in a state of diminished power and sensation. When an insulated portion of the brain has received an injury, and this is followed by paralysis, you would naturally expect, that as the local mischief of the nervous centre declined, in the same proportion all parts of the circumference which were sympathetically affected would equally and simultaneously recover. This is not the case; some will recover, others will not. Thus, in hemiplegia, the leg has its functions restored, while the arm continues powerless: or the arm gets well, while the leg remains paralytic; or, in some instances, the permanent incapacity of function is limited to a single muscle. I know a gentleman who has had an attack of hemiplegia, which was cured by appropriate treatment, but the ptosis which accompanied it still continues. You will recollect, then, gentlemen, that strychnine is applicable not only to those cases of paralysis which commence in the extremities, but also when it began in the centre; but after remaining for some time and then yielding, the disease still lingers in the extremities.

I promised before Christmas to give a lecture or two on phthisis, but as we have not time to enter on so important a subject to-day, I shall defer it until next Tuesday, and conclude this day's lecture with a few desultory remarks. You have observed, that on some late occasions we have been employing the nitrate of silver internally, and that it has been prescribed with much advantage in cases of phthisical diarrhœa. I do not mean to say that you can use it at all times and under all circumstances; but it will on many occasions be found to be a very valuable remedy, and it is good to have a variety of means where the treatment of colliquative diarrhœa comes before you, attended, as it commonly is, with much perplexity and difficulty. In the case above stairs, you have seen that a grain of the nitrate of silver, given three or four times a day, has been more effectual in checking the disease than twenty grains of the acetate of lead, and you have witnessed the same result in another instance. It has put a stop to the diarrhœa without injuring the appetite, increasing fever, or rendering the tendency to sweating more violent. When you check

diarrhœa by opiates, you generally increase the exhalation from the skin, and this, with the diminution of appetite, is one of the inconveniences arising from the use of opium. You are not to understand me as intending to assert that when you have arrested the purging by means of nitrate of silver, no vicarious sweating or other symptoms will appear. I merely state, that they will not be so distressing as when the diarrhœa has been removed by opiates, and that it is good to have a choice of remedies. There is another troublesome, though less important complaint, in which nitrate of silver is used with advantage. Young women who have been nursing for three or four months sometimes have the nipples in a very tender state, and from the irritation produced by the child's gums and other causes, they get fissures and painful excoriations of the nipples, which prove extremely annoying, and often compel them to give up nursing. In such cases, many remedies have been tried with very little success. The best thing you can do, is to take a ten grain solution of the nitrate of silver, and apply it over all the excoriations and fissures with a camel's hair pencil. I have seen this attended by the most beneficial results in a lady who was quite worn out for want of sleep, for you can scarcely conceive the pain and irritation which those sores produce, and what torture the mother endures when her infant sucks. The very night on which it was applied, she got some sleep, and recovered completely in four or five days. Nothing else was used, with the exception of a little fresh cream to soften the nipples when the child was put to the breast again, for the application of nitrate of silver produces a degree of hardness and dryness of the skin, which if not attended to may lead to the formation of new fissures. I mentioned to the class, on a former occasion, the use of nitrate of silver in skin diseases; and you have seen a case of psoriasis which was cured by its direct application to the skin, though it is a remedy which I am not inclined to recommend. But when you have been treating a case of psoriasis for some time, and have employed the usual antiphlogistic means, together with Harrowgate water, or arsenic, or dulcamara, or the liquor potassæ, or any of the remedies in use, and your medicines begin to take effect on the old spots, if any new ones appear, it is a very good practice to touch the new spots with nitrate of silver, for you will by this means cure your patient three weeks or a month sooner than if you made no such application. I do not begin to apply the nitrate of silver until the medicine begins to take effect on the constitution, and never use it in psoriasis, except to new spots which come out as the old ones are declining.

There is a man above stairs whose case induces me to make a passing observation on narcotics. The subject of narcotics and the utility which results from their combination, has been mentioned by Dr. Paris, in treating of the combination of remedies, and more lately by a physician of Glasgow, who has written a paper on the tranquillizing influence of hyosciamus combined with prussic acid in the delirium of fever. You are aware that there are some persons for whom the largest doses of opium will not procure an hour's repose, whereas, by combining two or three narcotics, as, for instance, some of the preparations of opium with prussic acid and hyosciamus, you will enable them to enjoy a tranquil and continued sleep. This has been illustrated in the case of a man labouring under pneumothorax, who has been sometimes for thirty nights together without sleeping; for you have remarked that a drop of prussic acid with a small quantity of black drop and hyosciamus have succeeded in restoring to him the rest which he has been so long denied. You have seen a similar favourable effect in another patient in the upper ward, and it is a circumstance which is worthy of being held in memory.

Let me direct your attention here to the extraordinary prevalence of three diseases at the present period, I allude to the numerous cases of spitting of blood, pneumonia, and hepatitis, which fill our hospital wards. Some years we have scarcely any of these complaints, but at present they are extremely rife, and seem entitled to the designation of epidemics. If all three had not been equally prevalent I would have built a theory on the absence of pulmonary affections, and would have said that the hepatitis was connected with cholera as it has been in India; but they are all equally extensive; and I remember, too, we had an epidemic of hepatitis here about five years ago, so that all I can do is only to notice their unusual frequency. There is a case of hepatitis at present in the hospital on which I have made some observations. The patient was here before with a similar complaint, and was dismissed cured, but returning to his intemperate courses got a second attack, accompanied by enormous swelling of the liver. The swelling is, in fact, so very remarkable (involving both right and left lobes) that you can easily perceive it at a distance from his bed, and what is equally remarkable, it has pushed the heart out of its place. Dr. Townsend, in his observations on dislocation of the heart, has not taken any notice of this displacement as arising from disease of the liver, but I am convinced that it is an occasional cause, and this is the second instance I have seen of it. In this man's chest the heart is found pulsating as high up as the mamma. Of the symptoms accompanying the second attack of hepatitis in this patient, I have spoken before in the wards. He had a good deal of feverishness, and on the seventh day got rigors; there was a degree of elevation and tenderness remarkable in the integuments covering one part of the tumour, and it was obvious that suppuration had commenced in the liver. From the rigors, sweats, appearance of the

man's countenance, and other symptoms, we were led to conclude that an abscess had formed in the substance of the liver, and as there seemed to be one portion of the hypochondrium tender, elevated, and soft, we hoped to be able to produce an external discharge of the matter by cutting down as far as the peritoneum, and filling the wound with dry lint, as we have done with success on other occasions. Nature, however, had been busy in another direction, and formed a different mode of exit for the purulent fluid; it burst into the intestines, the man got diarrhœa and griping, and passed a considerable quantity of pus mixed with fecal matter. On the first occurrence of this, he had a great number of purulent stools, then they suddenly diminished; in twenty-four hours he had another gush of matter, and then another pause, and in this way he continued for some time. The same thing takes place when an opening is formed externally; you have at first a great flow of matter for about a day, then the discharge is absent for a day or two, and then it returns again. This explains the prevalence of diarrhœa on one day and its cessation on the next; you remember I said yesterday that I expected another burst this morning, and you perceive my conjecture was well-founded. I think we are authorized in concluding that this abscess has found an opening into the intestinal tube. Now whenever this takes place you have an instantaneous attack of diarrhœa, which is to be attributed to the purgative quality of the puriform matter. It is not from any of the usual causes of diarrhœa being in operation in this man's case; it is not the diarrhœa of fever or of inflammation; it does not arise from the sweating of the skin ceasing, and the mucous membrane of the bowels taking on a vicarious action, but from the purgative quality of the pus. I have touched on this subject because I know that some persons labouring under phthisis are in the habit of swallowing their sputa, and it is a question whether this may not be prejudicial so far as diarrhœa is concerned, the symptoms of which it seems calculated to exasperate from the purgative nature of the pus. You will, therefore, prohibit in your patients a custom which is both dirty and injurious, and make them keep pocket handkerchiefs by them at all times to spit into. The bursting of the abscess, you observe, has been attended with much relief; the pain, tension, and fever have declined, and the man expresses that he feels much better. This change of circumstances has induced a change in our mode of treatment, for the moment we suspected the existence of an abscess, we laid aside antiphlogistics and mercury, because it has been verified by observation that mercury will not salivate where there is an abscess in the liver, and, besides, it will do no good. We are now giving a more nutritious diet, and have ordered a little wine: we have also prescribed the effervescing draughts, with infusion of bark and carbonate of ammonia, and, so far as we have gone, have no reason to regret this change of treatment. The man is going on as favourably as can be expected, but I fear the prognosis in this case is doubtful, if not bad. The disease is very extensive; an immense injury has been done to the tissue of the liver; the abscess must be very large; and I entertain but very slight hopes of a recovery. It is remarkable that in this man the secretion of bile, which is going on at present, is healthy. In an inflammation of the liver there is generally a suspension of its secretion, and scarcely any passes into the intestines; but in case of abscess, there still remains a portion of the liver which is healthy, and hence the bilious appearance of the stools.

Before we part, I must refer to one or two cases of bronchitis, in which polygala, seneka, and other stimulating medicines have been found beneficial. The rules for using stimulant remedies in bronchitis must depend on circumstances connected with the history of the case, the constitution of the patient, and the duration of the disease. If your patient's cough has been of some standing, the expectoration copious, constant wheezing, and the strength so much reduced that he is unable to cough up the large quantity of mucus which fills the bronchial tubes, and if in addition to this you have no remarkable sharpness of pulse, you may give stimulating medicines. In one of the cases, much relief has been obtained by this mode of treatment. The form used here is, to order eight ounces of the decoction of polygala; carbonate and citrate of ammonia, a scruple of each; tincture of squill, one drachm; hippo wine, three drachms; camphorated tincture of opium, half an ounce; and mucilage of gum arabic, an ounce, to form a mixture, of which two table spoonfuls are to be taken every two or three hours. We use no syrup, for in those cases of chronic bronchitis the stomach is generally out of order, and syrup is likely to prove acescent.

There is a case of dyspepsia in the hospital, in which the tongue is loaded with thick whitish mucus, that has derived remarkable benefit from the use of tartar emetic in minute doses. An ounce of the solution of tartarized antimony, and half a drachm of tincture of opium, is mixed with ten ounces of water, and of this a table spoonful is given every hour. We have also put the patient on low diet, bread and whey. By following this plan you get your patient's tongue clean in five or six days, and have his appetite restored. It is not necessary to use the antimony as an emetic. In the case of a man labouring under sweating arthritis, this treatment has effected a complete cure. He went out some time back, and relapsed: on his return we used colchicum for some time, and he improved to a certain extent, and then got worse. By the solution of antimony with a little laudanum, given in minute doses, the pain, sweating, and fever, have been very much diminished, his strength

improved, and his appetite restored. This case has been under the care of Mr. Fitzpatrick, and he has noted its symptoms with accuracy and care.

On Tuesday next, gentlemen, I shall enter into the consideration of phthisis.

Errata.—In Dr. Graves's lecture, p. 136, *for* ℥j. chloride of lime, *read* 3j. chloride of lime. Same page, *for* ℥ss. alum, *read* 3ss. alum.

LECTURE

ON THE USE OF IODINE IN THE CURE OF DISEASES.

DELIVERED BY DR. RYAN,

BEFORE THE MEDICO-BOTANICAL SOCIETY OF LONDON.

GENTLEMEN,—At the last meeting of the Society, the Professor of Chemistry delivered a lecture on Iodine and its Preparations, and it is now my duty to notice its medicinal history.

Iodine was discovered, in 1813, by M. Courtois, a manufacturer of saltpetre, in Paris; and it was first employed, in the treatment of disease, by Dr. Coindet, of Geneva, in 1819. That gentleman recollected that certain marine plants, as the *fuci*, had afforded iodine, and that some of the same family (*fucus vesiculosus*) had been recommended in bronchocele by Russell, he reasoned, from analogy, that the efficacy of sponge (a zoophyte found on the sea-shore) in removing the disease probably depended upon iodine; and he accordingly determined to employ it externally in bronchocele. To his great surprise, he found the remedy successful in removing the disease. He commenced his experiments about the end of July, 1819. About the same time Dr. Straub, of Hofwyl, without any knowledge of Dr. Coindet's discovery, detected the smell of iodine in burnt sponge; and towards the conclusion of the same year, Dr. Fyfe, of Edinburgh, detected iodine in sponge. It is a singular fact, that Sir H. Davy, and M. Berard, of Montpellier, examined many marine productions of the Mediterranean in 1813, with a view to detect iodine; and though they discovered it in small quantities in the ashes of *fuci* and *ulvæ*, they did not perceive a trace of it in the corallines and sponges. After a great number of experiments with iodine, Dr. Coindet read a paper, entitled "Observations on the Use of Iodine as a Remedy for Bronchocele," before the Helvetian Physical Society, July 25, 1820. In this he states, that iodine is sufficient to disperse the largest bronchoceles, when there is no organic lesion around the enlarged thyroid gland. In a great number of cases, the disease disappeared in six or seven weeks, without leaving the slightest trace of its existence. Astonished by such unprecedented success, he instituted a series of experiments on the new medicine. He ascertained that it existed in so small a proportion in sponge, that it was impossible to determine it. He obtained it from the mother-water of Varec (*fucus vesiculosus*). He was of opinion that it did not form one of the constituent parts of marine productions; that it was only mixed with them accidentally, since it did not exist in the alkalies prepared in Sicily, Spain, or the Roman States. He also observed, that sponge, when washed or macerated, before analysis, contained a less quantity than when used in its natural condition. He remarked, that iodine rapidly united with oxygen and hydrogen; and that the salts resulting from the first combination were but slightly soluble in water; and therefore he did not exhibit them. He preferred the combination of iodine and hydrogen; and, after many cautious trials, concluded that hydriodate of potass was the best preparation. The hydriodate of soda was used by him with equal success. He considered that forty-eight grains of the hydriodate of potass, dissolved in an ounce of distilled water, were equal to thirty-six grains of iodine. This solution, with a sufficient quantity of water, still dissolved iodine, forming an ioduretted hydriodate of potass; and this preparation removed old and voluminous bronchoceles, after the simple solution had failed. Another formula was the tincture of iodine, composed of forty-eight grains of iodine to an ounce of spirit of wine of 35°. This he strongly recommended as easily prepared, as it was difficult to procure the hydriodates in a pure state. The dose was ten drops in half a tumbler of capillaire, or water, three times a-day for the first week; and, at the end of this period, fifteen drops were given as frequently as before; and, some days later, the maximum dose, or twenty drops, three times a-day were given. Twenty drops contain about a grain of iodine.

Dr. Coindet was aware, that the tincture of iodine readily decomposed, that the hydrogen of the alcohol united with the iodine, and formed an ioduretted hydriodic acid. He concluded, that iodine is a stimulant, tonic, and emmenagogue, and that it possesses great power over the generative organs. It did not act as an aperient, diuretic, or sudorific. He observed, that it caused marasmus, diminution of the mammæ, testes, and other glands, when patients exceeded the maximum dose; and this result led him to employ the remedy in the form of ointment.

Having noticed the extraordinary power of this medicine on the glandular system, Dr. Coindet tried the remedy in scrofula, with more benefit than attended any other medicine. He observed, that, after the application of leeches to scrofulous tumours, the new remedy produced a rapid diminution of their size; but, in some cases, the disease remained stationary. He was convinced, that so soon as iodine caused redness on the surface, or incipient inflammation, it ought to be discontinued, because it rapidly induced suppuration, which was highly objectionable in scrofula, if it could be avoided.

The efficacy of iodine in scrofula induced Coindet and others to try it in syphilitic affections in strumous habits, and in such cases he combined it with mercury, in the form of an ioduret or hydriodate. Finally, he argued that, as there was a strong nervous connexion, or sympathy, between the ovaries, uterus, and thyroid gland, he thought it reasonable to infer, that iodine would prove useful in diseases of the ovaries and uterus, in chlorosis, amenorrhœa, and leucorrhœa. He concluded his essay in these words: "I have no doubt but it will become, in able hands, one of the most powerful of the remedies with which modern chemistry has enriched the materia medica." The following formulæ were next recommended by Dr. Brera:—the tincture the same as that already described.

Pills of Iodine.—Iodine, one grain; elder-rob, with liquorice-powder, to make into two pills, one to be taken morning and evening. This is an objectionable form, and is not used at present.

Iodine ointment.—Iodine, one drachm, or hydriodate of potass, half a drachm; lard, one ounce: a scruple of the first or about half a drachm of the second to be rubbed on the affected part.

Solution of the hydriodate of potass has been already described.

Solution of the ioduretted hydriodate of potass.—Hydriodate, thirty-six grains; iodine, ten grains; distilled water, ten drachms: dose, five or six drops three times a day. Saggio Clinico sull' Iodio, e sulle differenti sue Combenazioni e Preperazioni, &c. Padua, 1822.

Dr. Brera considered iodine a safe and valuable remedy when used judiciously.

A great impression was made on the medical faculty by Dr. Coindet's discovery. Iodine was tried, during the year 1821, in France, Germany, Italy, and this country. Dr. Gemelle, Assistant-surgeon of the Military Hospital of the Royal Guards at Paris, employed the new remedy with success in bronchocele, psoriasis, and squamous diseases (Bull. de la Société d'Emulation, Août, 1821), while Dr. De Carro of Vienna added his testimony in corroboration of all Coindet's conclusions. It appears, however, at this period, that the opinions of the profession in France were balanced as to the effects of iodine on the human body, (Rev. Med. September, 1821.) In this country, Sir Andrew Halliday was the first to laud iodine in scrofula, as appears by his papers, in the London Medical Repository, September, 1821. Two eminent German physicians advised the profession to be cautious in the use of the remedy, (Dr. Nordhoff, Allgemeinen Med. Annalen, 1821. Dr. Golis of Vienna, Medecisniche-chirurg. Zeitung, 1821.) Dr. Kennedy of Glasgow tried it without success in an obstinate case of bronchocele. He administered 950 grains in eight days. He had inserted a seton previously without any benefit, (Edinburgh Medical and Surgical Journal, 1822). Dr. Baron of Gloucester was of opinion, that no other medicine possessed the powers of iodine in the removal of morbid growths, by promoting absorption. He found it useful in several cases, and agreed with Professor Brera "that mere friction, or inunction, will not, in many cases, be successful, without also giving it internally." He advised iodine in tuberculous consumption, (Illustrations of the Enquiry respecting Tuberculous Diseases, 1822). About this period, Dr. J. R. Johnson translated Dr. Coindet's "Observations on the Remarkable Effects of Iodine in Scrofula," &c. 1822. Dr. Gunther of Cologne praised iodine in bronchocele and scrofula, (Medecisniche-chirurgische Zeitung, Aug. 1822). During this year, the late Professor Duncan had known and seen salutary changes, produced by iodine, in scrofula, when other remedies had failed, (Edinburgh Medical and Surgical Journal, 1822, vol. xix.) In the same Journal, Jan. 1824, vol. xxi., an editorial account is given of three cases of scrofulous affections, successfully treated by Mr. Delisser of Judd-street, Brunswick-square:—the first case was a scrofulous affection of the knee-joint; the second case was that of a child, aged three years, who in less than two months, took 222 grains of iodine; and the third case was that of a lady, who laboured under scirrhus of the breast, and took in two months, 1019 grains of iodine, without relief.

In April, 1824, Dr. Gairdiner published his "Essay on the Effects of Iodine on the Human Constitution: with practical Observations on its Use in the Cure of Bronchocele, Scrofula, and Tuberculous Diseases of the Chest and Abdomen." He expressed his surprise at the total inefficacy of the remedy in the hands of British practitioners, while its virtues where so palpable at Geneva; but he soon discovered the explanation of his difficulty. He detected the chemists *substituting charcoal for burnt sponge*, and in many instances pretending to prepare his prescriptions, in which he ordered hydriodate of potass; but on calling at their shops to examine the medicine, "I discovered," he observes, "that they were not even aware of the existence of such a drug." This fraud continues at this moment; and I repeat what I have placed on record, that it is almost impossible to procure genuine hydriodate of potass in this metropolis. This fact was attested by Mr. Everitt at the last meeting of the society, and is well-known to the medical profession, who deplore such a monstrous evil. The article sold for hydriodate contains 70 parts in 100 of a foreign and useless ingredient; and this accounts for the inefficacy ascribed to one of the most valuable remedies ever employed in the practice of medicine. On account of my repeated exposures of the fraudulent adulteration of this and other remedies in the Medical and Surgical Journal, I have been assailed in the newspapers, and received innumerable abusive letters; but I am not to be deterred from performing my duty to the profession and the

public. I have also the satisfaction to mention that I have received, during the last year, several letters from physicians and surgeons in different parts of this kingdom, requesting me to inform them where the medicine was to be had genuine, and to what establishment I alluded in the Journal.

To resume my narrative, I here revert to Dr. Gairdiner, and thank him for his instructive work; but I cannot help observing, that his detail of the frightful injury done by the injudicious administration of iodine, and its preparations, was calculated to frighten timid practitioners, and to prevent them from using these remedies. His statement is confirmed by a few eminent writers; but I believe a preponderating majority of experienced practitioners are unanimous in the opinion, that iodine, when used judiciously, is as safe and efficacious a remedy as any in the pharmacopœia. Every medicine in use will produce the worst effects if administered in excessive doses. Dr. Gairdiner candidly admits, that he had employed iodine in a great number of cases, without ever meeting with any accident; and at the period at which he published, Dr. Coindet had given it to 150 patients, Dr. Decarro to 120, Dr. Erlengin, of Zurich, to 70, and Dr. Manson, of Nottingham, as will appear immediately, to a considerable number, with the same results. I regret to notice, that Dr. Paris, in his Pharmacologia, just published, quotes Dr. Gairdiner, Mr. Brodie, and others, as authorities against the safety and value of iodine; while the Academy of Sciences of Paris consider it one of the most powerful and efficacious remedies ever discovered. I shall adduce ample proof of this position when I come to speak of M. Lugol's useful work on the employment of iodine in scrofulous diseases. Dr. Gairdiner is entitled to great praise for having first employed the remedy under consideration in that common and hitherto fatal disease of children, enlargement of the mesenteric glands. He relates three successful cases, and I can add my testimony in corroboration of his statement. I have found the remedy effectual in many cases, and am happy that there are gentlemen present who witnessed its beneficial effects. Lastly, Dr. Gairdiner recommended it in the first stage of consumption, but thought it unsafe when the disease is advanced.

The next writer on the use of iodine was Dr. Kolley, of Breslau. He considered it a most valuable remedy; but a dangerous one if abused. (Archiv. fur Mediziniche Erfah rung, 1824. Journ. Complementaire, Fev. 1824.) M. Miguel, of Paris, published a case in which iodine produced deleterious effects. (Gazette de Santé, Mars, 1824.) Sir Astley Cooper cautioned his pupils against employing it, *as he considered it a very active poison.* He observes, "it is a dangerous remedy where used internally, and I do not think its merits as an internal medicine are at all equal to those which it possesses as an external application." —Lectures, 1824. Sir Astley related but two instances in which the medicine produced bad effects, and one of these fell under the observation of the late Dr. Marcet.

M. de Salle employed it in chronic inflammation of the testicle subsequent to gonorrhœa (Journ. Complementaire, Octobre); and M. Richon gave it in gonorrhœa (twelve drops of the tincture three times a-day), and generally effected a cure in three weeks; and applied the hydriodate ointment in three cases of chronic enlargement of the testicle with success. —Op. cit. Septembre.

Towards the end of 1824, Dr. Sablairoles published a paper on the use of iodine in scrofula and leucorrhœa, which was calculated to remove the objections to the employment of the remedy.—Journ. Universel des Sciences Medicales, Nov. 1824.

The work which established the value of iodine in this country was that published by Dr. Manson, of Nottingham, in August, 1825. He mentioned that he had commenced his trials of the remedy in March, 1821, and had prescribed it to the amount of 180 ounces at time of publication. He stated that it had cured 116 cases of bronchocele, and that it was an effectual remedy for palsy, caused by tumours or effusion in the brain; for chorea, scrofula, fistula lachrymalis; for deafness, caused by obstruction of the eustachian tube; for dysphagia, white swellings, scrofulous disease of the hip-joint, and that it afforded relief in spinal disease. He also assured the profession that iodine was a safe medicine, when it was employed judiciously; and once more it became a favourite remedy. Dr. Manson's formulæ differ in a slight degree from those of Dr. Coindet; but, as both are superseded by M. Lugol's, it is unnecessary to mention them on the present occasion.

At this period, 1825, Mr. George Nesse Hill, an eminent surgeon at Chester, narrated a case of ulcerated cancer of the breast, in which great relief was afforded by an ointment composed of a scruple of the hydriodate of potass, and an ounce of lard.—Lancet, Oct. 1825, vol. x.

M. Locher-Balber related some cases of painful menstruation and scrofula removed by iodine.—Révue Médicale, Oct. 1825.

Dr. Van der Colk had used it successfully at Amsterdam in 1826.—Dr. Aldis on Iodine, 1832.

In January, 1827, Dr. Elliotson employed iodine both internally and externally in abdominal dropsy with decided advantage.—Op. cit. vol. xi.

In April, 1828, Dr. Milligan reported cases of enlarged liver and spleen, which occurred at the Royal Universal Infirmary for Children, which were cured by the tincture of iodine. (Medico-Chirurgical Review, 1828, vol. ix.) At this date Mr. Buchanan, of Hull, an author favourably known to the profession by several works of considerable merit, published an

"Essay on a New Mode of Treatment for Diseases of the Joints, (1828)" and this was the application of iodine. Dr. Thetford removed an indurated enlargement of the uterus by the internal and external use of iodine.—Dublin Medical Transactions, vol. v. 1828.

In 1827, M. Lugol, physician to the Hôpital Saint Louis, at Paris, commenced his experiments with iodine in scrofula; and in June, 1829, he read his "Memoir on the Employment of Iodine in Scrofulous Diseases," before the Royal Academy of Sciences, on which occasion, MM. Serres, Magendie, and Dumeril, were appointed to visit his hospital and witness his practice; and, after the amplest observations, they confirmed every statement he had advanced. Their report was received in August, 1829, and adopted by the Academy. According to the decision of the commissioners and the academy, iodine is an effectual and certain remedy for every form of scrofula, whether glandular enlargement in the neck, axillæ, groins, or mesentery; for ulcers, however extensive; for abscesses, caries, fistulæ, and venereal affections in scrofulous habits; for cancerous ulcerations of the face and scalp; scrofulous ophthalmia, even producing blindness; for cutaneous scrofula in the nose, upper lip, and cheeks; in abscesses and fistulæ in the neck, joints, &c.; white swellings and ulcerations of the different joints; caries of the vertebræ, maxillary, and other bones, and for lumbar abscesses. Numerous cases, illustrative of all these diseases, were cured under the observation of the commissioners.

M. Lugol presented three essays to the Academy of Sciences in 1829-30-31, and was awarded a prize of 6000 francs for his researches. He had great advantages, as the institution to which he belonged was intended for diseases of the skin and scrofula, and there was no limit to the time allowed for treatment. In British hospitals, scrofulous patients are not admitted, and therefore our physicians have not had such opportunities of urging iodine as M. Lugol has enjoyed. Some of his patients were in the hospital for twelve months, before a cure was effected; but his success in removing the worst forms of scrofula is truly astonishing, and most gratifying to every humane practitioner. Diseases which could only be relieved by the knife or by death, are now within the pale of medicine. In proof of this statement, I beg leave to quote the decisions of the Academy of Sciences.

ACADEMIE ROYALE DES SCIENCES.

Report addressed to the Royal Academy of Science, on a Memoir by M. Lugol, on the Use of Iodine in Scrofulous Diseases.

Read by M. Dumeril.

"MM. Serres, Magendie, and your reporter, proceed to lay before the Academy an account of a Memoir (presented by M. Lugol, Doctor in Medicine) on the Use of Iodine in Scrofulous Diseases."

The reporters give a frightful though accurate description of scrofula, which I need not quote on the present occasion.

"Such is an abridged view of the frightful malady to which M. Lugol, with zeal, perseverance, and success, has opposed a remedy, not absolutely new, but which had never previously been administered with so much method and precaution, to such a number of individuals at once, or with such evident and decided success.

"M. Lugol is one of the distinguished physicians attached to the Hôpital Saint Louis, the only hospital in Paris where a great number of scrofulous patients are admitted for internal treatment. This circumstance explains how, in the short period of seventeen months, from the 10th of August, 1827, to the 31st December, 1828, M. Lugol has been enabled to collect the detailed cases of upwards of 100 patients; in whom he, of course, found great variety in the seat and intensity of the disorder.

"Before your commissioners proceed to give an analysis of the memoir, they deem it right to declare, that they have not at all confined themselves to the scrutiny of its contents; but that they have seen, examined, and questioned the patients under treatment, and have also visited some of those reported cured or convalescent,—that all the author's assertions have been found scrupulously exact,—that many of the patients, who were under treatment when the memoir was finished, have since been completely cured.

"Without restricting ourselves to the order followed by M. Lugol, in his Treatise, we proceed to make known its principal results.

"In the first place we may observe, that he uses two preparations of iodine: the one, exclusively intended for internal administration, is a solution of this simple substance in distilled water; the others are proper for external application, whether as ointments for ulcers, pomade for frictions, or watery solutions of varied strength, for collyria, lotions, and injections.

"The motives which have induced M. Lugol to employ, by preference, the *aqueous* solution of iodine, appear exceedingly plausible. So active a medicine can scarcely be administered in an hospital without inconvenience and uncertainty, except in the form of a drink. The alcoholic tincture and sirop of iodine present many disadvantages in the exact measurement and distribution of their doses, while a pint, or half a pint, of distilled water, containing in solution a little common salt, and a fixed quantity of iodine, affords us an easy, precise, and economical method of dispensing the remedy. Two degrees of this solution intended for the patients, and designated by the name of "Mineral Water," No. 1. and 2., the first containing two-thirds of a grain, and the second one grain of iodine in solution, have furnished the means of dosing exactly from day to day, and of recognizing the effects of what was previously employed.

Thus half of No. 2. is the first allowance, the entire of No. 1. the second, and, finally, the whole of No. 2.

"As to the preparations intended for the external treatment, these are unctuous substances of a certain weight, and associated in determined and successively increasing proportions with iodine, ioduret of potassium (hydriodate of potass), or with the protoioduret of mercury.

"These simple means have sufficed M. Lugol for the treatment and cure of numerous cases, twelve of which, selected from the different species of scrofulous affections, are described in the Memoir. [The cases are here described.]

"All these cases are given at great length, they present complete accounts of the history and symptoms of the patients at the time of their first examination, and before the treatment was commenced. Many of the cases have been figured, and a record is presented of the modifications which have supervened during the treatment, as noticed twice every month, until the cure or discharge of the individual.

"The author of the memoir has carefully noticed the effects produced by the iodine on the animal economy. Applied externally, its local action has always been very sensible: it determines on the surfaces of the ulcers a feeling of smarting, accompanied with painful itchings. *This application to the diseased surfaces changes their appearance, and frequently produces as appreciable an effect as that determined by mercury on venereal ulcers.* Moreover, the mode of its action does not appear to be invariably the same: sometimes the iodine seems to melt down and resolve the tubercles, sometimes, on the contrary, it urges them on to rapid suppuration. At other times, the painful sensation appears to diminish in proportion to the healing of the surfaces, an effect which is perhaps dependent on habit; nevertheless, some ulcers remain sensible while the curative process is not at all established.

"Internally administered, and always in small doses, and with the most prudent slowness, the ioduretted water constantly excites the appetite, and appears to increase the urinary and salivary secretions. Sometimes, but very rarely, it has become purgative to so considerable an extent that its use was necessarily suspended, at different intervals, from two to three days each. In other and still rarer cases, in which the solution of iodine appeared to occasion pain in the stomach, the wine of quinquina (quinine), given according to the directions of M. Coindet, in a dose of two or three ounces, put an end to the troublesome symptoms. M. Lugol, however, always declined as much as possible this association of remedies, in order to avoid complexity in the results of his treatment.

"Iodine, administered in this diluted form, has never caused emaciation nor produced the expectoration of blood, or other accidents, which many have imputed to its action.

"From the contents of the first memoir, it appears that M. Lugol has treated, with iodine alone, in seventeen months, at the Hôpital St. Louis, 109 scrofulous patients, of which 61 were males and 48 females.

"That, at the close of last year, 39 (29 males, 10 females) were still under treatment.

"That 30 (17 males, 13 females) had quitted the hospital with marked improvement.

"That in four cases (2 males, 2 females) the treatment was ineffectual.

"Finally, that 36 (13 males, 23 females) were discharged completely cured.

"The author concludes, from all the facts he has collected, and the researches he has conducted, that iodine deserves to be considered as the most efficacious remedy in scrofulous diseases, since it has constantly arrested their progress, or at least exercised a salutary action in the treatment of all tubercular tumours, even when it has not evidently accomplished their cure. He therefore believes that the introduction of this remedy into medicine is one of the most valuable acquisitions the healing art has made in modern times.

"We shall, then, confine ourselves to say, that after having made ourselves acquainted with the facts cited in the Memoir, we have been enabled to confirm the evident action of the remedy; and that we believe M. Lugol to have effected a work of great utility, by availing himself of the facilities afforded by his situation, in seeking for a remedy for a disease hitherto so deplorable and desperate. We consequently propose to the Academy to encourage this physician to persevere in the researches which he has hitherto pursued with so much zeal and sagacity.

(Signed) "Serres,
"Magendie, and
"Dumeril, Reporter.

"The Academy adopts the conclusions of this Report. (Signed) Baron G. Cuvier,
Perpetual Secretary, Counsellor of State, Grand Officer of the Legion of Honour, &c. &c."

Second Report.—"The new facts, which, on the present occasion, your committee has verified, are such as to remove every doubt on this subject. Not only have we witnessed the cure of scrofula in the first and second degree, but we have also seen the successful treatment of the disease in its most aggravated forms.

"Deep-seated alterations of the glands and various other organs, serious lesions of the bones and their principal articulations, accompanied by those general symptoms which forebode a speedy death, have been perfectly cured, in great numbers of cases, in the space of a few months, leaving the patients in the best possible state, and free from every vestige of the malady, except the ineffaceable scars it had originally effected. Moreover, these results are rendered still more valuable by the fact, that the majority of cases, subjected to M. Lugol's practice, were, previously, in a desperate state, and only admitted into his wards as deplorable examples of the ravages of an irre-

mediable disease. Among the unfortunate persons thus afflicted are frequently seen some whose mutilations are truly frightful. Before the discovery of iodine, they were all devoted to inevitable destruction, but since the introduction of that remedy, and of bromine into therapeutics, one of your committee has had the happy satisfaction of restoring to health and comfortable existence many of those cases hitherto deemed of an incurable kind. It may not be superfluous to add, that these cures have been as rapid as unexpected.

"We shall not here enter upon an analysis of the individual facts submitted to our examination and authentication by M. Lugol; we have added some to this report, but they are not suited to be read to this assembly, for pictures so melancholy, without promoting the interests of science, could not fail to be disagreeable;—one remark is nevertheless essential. In cases of tumours of the articulations, with caries, or other alterations of the bony tissue, instead of recommending absolute rest, according to the general practice of surgery, M. Lugol includes regular exercise in his remedial measures. The cases of this kind which he has shown us leave no doubt of the advantage to be obtained in following this departure from the general rule.

"We have already said, in our preceding report, that M. Lugol does not pretend to the discovery of the utility of iodine in scrofulous diseases; but from the great number of cures he has obtained, from the zeal and perseverance with which he pursues his researches; from the light he has thrown on the varied effects of the different preparations of iodine, internally and externally administered, it is manifest that he has contributed largely to the advance of medical science. And as, moreover, he has the wisdom to shun all idle and profitless speculations, the uselessness of which constitutes but their least inconvenience, we have the honour to propose that M. Lugol's researches receive your approbation, and that he be requested to continue to prosecute inquiries fraught with so much value to mankind."

It appears by the preceding quotation, that the tincture and syrup of iodine are objectionable preparations, as they are readily decomposed when combined with water or bitter infusions; and our Gallic contemporary prefers a saturated solution of pure iodine in distilled water. The formulæ he employed at first, which he subsequently modified, were the following:—half a grain, two-thirds of a grain, and one grain of iodine, in three pounds of distilled water, and to each pound he added twelve grains of chloruret of soda (muriate of soda) to render the solutions more assimilable. The solutions he designated numbers 1, 2, and 3, and gave to each the name of iodurettted mineral water. He observed in all cases I commenced with No. 1, seldom using No. 2 until the second month of treatment; and he did not exhibit No. 3 indiscriminately. He says, "I have never exceeded the last dose of one grain daily." M. Coindet urged the remedy to the extent of three grains daily. Here is a most important distinction, and one founded on careful observation. These solutions, as well as the ointments first employed, were alternately changed; and therefore I omit them. It appears, that intense local action was produced by the external use of iodine, and that scrofulous sores were as rapidly changed, as venereal ones by mercury. Strumous ulcers were too quickly cicatrized in some instances. A great outcry has been raised against the use of iodine. Its internal use has been condemned by some eminent practitioners in this country. "I can confidently assure practitioners," says M. Lugol, "that I have never seen a case in which iodine injured the health in any manner, for far from being hurtful, it is a powerful stimulant, which revives the organic functions, fortifies the general constitution, excites organic functions, and encourages the growth of every part of the human fabric. It does not cause consumption or spitting of blood, as alleged by some practitioners. In general, patients fall into flesh while using this powerful medicine."

(To be concluded in our next.)

EXTRAORDINARY CASE OF TWO INFANTS UNITED AT THE BREAST, SOMEWHAT SIMILAR TO THE SIAMESE TWINS.

THIS extraordinary phenomenon shows the vagaries of nature, and points out how inscrutable are her ways on some occasions. It teaches us to admire the wonderful construction of the human frame, even when unnatural. Cases of a similar kind have been known to the faculty from time immemorial, and were called monstrous births. They are, however, of very rare, though occasional occurrence. The present example is singularly interesting, not only to the medical profession, but to the public at large. It presents to our view the bodies of two perfect infants, united at the breast bones, and for about three inches down the abdomen; one navel string supplied both with blood. They are completely formed in every other respect, and are of the same sex, being females. They were born at Starcross, near Exeter, on the 12th of January, 1833.

The father is a healthy labourer, in the 32nd year of his age. The mother is a hale, well-looking woman,

in her thirtieth year. These persons were married for six years, but had no children. It is a most remarkable fact, that the mother enjoyed excellent health during her pregnancy, and had a quick labour. She was taken ill at three o'clock in the afternoon, and was delivered at seven in the evening; she suffered so little, that those about her supposed her labour natural, and that she had a very good time of it. The children were born by the feet, and it was discovered that three lower limbs presented; one of the heads was very much compressed and flattened. Each infant measures twenty inches in height, and the width of both round the chest is nine inches. The weight of both is about nine pounds and a half. They are perfectly formed, except at the bond of union. All parts of each infant are otherwise developed. At the inferior edge of the navel, is one navel string, giving off vessels to each infant. In similar cases, there have been four arteries and one vein in the navel cord. The vessels have not been examined in this case. The infants were alive immediately before birth, but were destroyed by pressure on coming into the world.

Here is a subject for reflection to those engaged in the practice of midwifery. It shows how much nature is to be trusted, and how she ought to be left to her own resources in most of the ordinary cases of labour. The mother had a rapid recovery, and she solemnly declared, she was not frightened during pregnancy, and had never heard of the Siamese twins. This proves the absurdity of ascribing marks and deformities to the power of the mother's imagination. It is well known to medical practitioners, that their patients are often frightened and have longings; but their infants are born perfect. They know, too, that the nerves of the mother are not continued to the infant in her womb, and therefore, as the mind depends on the brain and nerves of the mother, it cannot directly affect the infant. It is astonishing how people in general will not give themselves the trouble of reflecting. They take things for granted, however absurd. They suppose that the imagination of the mother can deform the offspring, though it cannot mark or injure herself. They forget that the lower animals and vegetables present deformities; though the mind can have nothing to do in the matter. They are not aware of the fact, that in the records of Lying-in Hospitals, cases of deformities, or of montrosity, are extremely few; not more than 1 in 10,000. Nevertheless, 9999 of the mothers suffer from mental emotion, or from frights and longings, because it is almost impossible for a pregnant woman in a crowded city, or indeed in any situation, to pass through pregnancy, without having her mind disturbed by something or other. There are often marks and deformities, as in this instance, though the influence of the imagination cannot be traced. In the dark ages it was believed, even by the faculty, and it is now credited by a very few of the superficially-informed among them, that the mother's imagination produces monsters, or marks. The old stories were quite incredible. But the case now exhibited to the public, which has been inspected by the leading members of the profession, amongst whom are Professor Davis, of the London University, Mr. Langstaff, Mr. Coulson, Mr. Stanley, &c. &c. is calculated to excite the curiosity and interest of all classes of society. It affords the members of the medical profession a wide field for inquiry. They have to explain the structure, the union, the development, and the birth of this extraordinary specimen of human deformity. They have to explore the wonderful wisdom of the Divine Author of all things in this singular proof of his Omnipotence. But the public at large must be astonished and amazed at the perfection, symmetry, and beauty of this unaccountable vagary of nature.

This monster may be seen at Saville House, Leicester-square.

THE

London Medical & Surgical Journal.

Saturday, March 16, 1833.

EFFICIENT MEDICAL REFORM.

We have heard from authority upon which we have reason to place the firmest and surest reliance, that the Royal College of Surgeons is about to set a most splendid example of reform, which will deserve and obtain the approbation and support of every liberal-minded man. In the first place, we learn that the plan is to be carried into effect which we have so frequently suggested, and so warmly enforced, namely, that a board for examination of the proper qualification of gentlemen to become obstetricians is to be established, upon a principle similar to that of the Dublin College of Surgeons.

It is also determined, that no gentleman shall be recognized to deliver lectures on anatomy, which shall become part of the education of pupils, until he has publicly undergone an examination, and thus a knowledge of his qualifications will generally be obtained; this is a very proper imitation of the excellent mode followed in Paris, for the *concours* must be considered as one of the best tests that could be devised of the ability of a man to exercise the responsible duties of a teacher. Another most important improvement is the determination that students, after they shall have shewn their competency on the other points connected with surgery, shall exhibit their knowledge of anatomy and of surgery, by the performance of operations upon the dead subject; this practice is also pursued with the happiest results in France. Great changes will also take place in the Board of Examiners: nor are the minor details to be forgotten; for annual statements of the expenditure, of the museum, and of the library, will also be laid before the members. We congratulate, with the sincerest expression of joy, every member of the profession, and the whole public, on this auspicious event, which is of such deep importance to every individual member of society. The benefits that will result to suffering humanity are incalculable; and at every point must the general good follow upon such useful and honourable improvement. Next must come the turn of that stupid representative of the darker ages—that antiquated beldame, born in the days of the eighth Henry, who, grown old without the wisdom of age, has long slumbered in the midst of her exclusive ignorance and besotted pride—the Royal College of Physicians. This corporate body in vain attempts to stem the swelling tide of truth, of justice, and of reform. The sea rolls proudly on, and will soon level to the sands the worn-out bulwarks and the feeble battlements. Reform has gone forth, and its triumphs will be hailed wherever the human voice can echo forth its testimony of joy.

ROYAL MATERNITY CHARITY.

Dr. Ryan and Dr. Thomas Blundell are now the sole candidates for the vacant office of physician-accoucheur

to this institution. Dr. Borrett having left the field open to these gentlemen. The day appointed for election is Friday the 22d. Both candidates are strongly and warmly supported by their respective friends, and the contest is carried on with great ardour on both sides.

MARY-LE-BONE GENERAL DISPENSARY.

THE vacancy, occasioned by the resignation of Dr. Sigmond, has not yet been filled up; that gentleman having consented to perform the duties of physician until the election takes place.

ST. GEORGE'S HOPITAL.

DR. MACLEOD has triumphantly walked over the course, and was elected physician without opposition.

WESTMINSTER MEDICAL SOCIETY.

A SUBJECT of rather unusual interest has occupied the Westminster Medical Society, and was, at the last meeting, the cause of a warm debate and much excitement. In the course of the previous meeting, Dr. Granville had expressed his surprise and regret, that so few physiologists should have appeared in England, whilst the continent had produced so many individuals, who had devoted their attention to this branch of science. Mr. Chinnock expressed his surprise, that Dr. Granville had not excepted one individual, Dr. Lee, who had laboured with great industry in the same field with Dr. Granville, and had thrown so much light on the connexion of the uterus with the placenta; to this Dr. Granville replied, that Dr. Lee had been his pupil, enjoyed access to his dispensary practice, was made acquainted with his views, and had first heard from him some of the doctrines, which Dr. Lee had given to the world as his own; and besides which, that gentleman had also borrowed the opinions expressed by Professor Lauth, six years before, nay, even in one passage, his very words. On Saturday night, Dr. Lee came forward and repelled, with great indignation and warmth, the charge of piracy that had thus been brought against him. He distinctly denied that any observations made by him were borrowed, and challenged any one present to point out any passage in Professor Lauth's work that bore the similarity that had been spoken of. In this declaration he was borne out by Dr. Copland, who stated that he had compared the two authors, and that they were perfectly dissimilar. Dr. Granville did not appear, in the speech he then delivered, either anxious or willing to withdraw his assertion. He spoke with great energy and ability, and very properly dwelt with great power on an argument, which had been somewhat ungenerously used against him, that he was a foreigner. Such discussions do the society material injury; the present one, however, after what Dr. Granville had stated, could not be avoided. We trust it will not be resumed, although, we must confess the matter is, as to a satisfactory explanation, very much where it was; for Dr. Granville has not retracted what he stated, nor does it appear, that Dr. Lee might not have derived a great deal of his information from Dr. Granville. We are happy to find, that Dr. Copland will, at the next meeting, bring forward a topic of more general importance, *delirium tremens*.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, March 4, 1833.

DR. BURNE, President, in the Chair.

Living Hydatids—Arm Presentations —Removal of Arm with a Butcher's Knife — Birth of Infants by the Arm, with the Head compressed on the opposite Shoulder—Spontaneous Evolution — Evisceration of the Chest and Abdomen—Dismemberment of the Fœtus—Power of Nature in a Case similar to the Siamese Twins, now in London.

AFTER the annual Report of the Society's affairs was read and approved, the minutes of the last meeting were read.

Mr. Bryant inquired of Mr. Stevens whether the hydatids were floating or attached. Mr. Stevens replied they floated in a liquor of a similar colour to themselves. He had kept them alive four hours by means of warm water, before the meeting of the Society. He took them from the mesentery of a sheep.

Mr. Proctor rose, and commented on the case of arm presentation related at the last meeting, in which the arm was removed, by a midwife, with a butcher's knife. He wished to inquire whether Dr. Hendy, who related the case, found much difficulty in turning. The practice of removing the arm was not new in this country, as a case was related to the Society, some time ago, in which a London practitioner removed the arm. He was of opinion that this was bad practice, as it could not change the presentation. He considered that turning should be performed as early as possible, before the shoulder of the infant became impacted. A singular case of this kind had occurred to him, in which the arm presented, and turning could not be accomplished. He sent for a blunt hook to separate the head from the trunk; but while the messenger was away, the shoulder descended, the neck was expelled, the head was compressed and flattened on the opposite shoulder, and escaped in that way.

Dr. Hendy replied, that he experienced great difficulty in turning, though the patient was moribund when he arrived, and the pulse was small and rapid, the countenance excessively pale, and the extremities cold. The woman screamed when he attempted to introduce the hand, though the uterus was but slightly contracted. He believed the midwife had wounded the mother as well as the infant, as the bed was completely saturated with blood. The woman died three hours after delivery. He mentioned the case for the purpose of ascertaining from the Society whether the midwife was amenable to law, as the magistrates declined to act unless he could inform them of a prosecution under similar circumstances.

Mr. Stevens gave a description of the difficulties of turning, and related a case which fell under his care, and precisely similar to that mentioned by Mr. Proctor. He concluded by stating his conviction, that no member of the Society would sanction the removal of the arm in ordinary cases of arm presentations. He also described the spontaneous evolution.

Dr. Ryan observed, that the cases mentioned by Mr. Proctor and Mr. Stevens were extremely rare, and he did not, at that moment, remember a similar instance on record. He would inquire of these gentlemen whether they suggested the forcible extraction of the arm in cases of brachial presentations, where turning could not be effected? He believed that the use of the sedative preparations of opium or morphia, given freely, would in general tranquillize uterine action; or depletion, when practicable, might be tried; and if these failed, he would give tartarized antimony in nauseating doses, as every one knew its power of prostrating muscular action. For his own part, if these remedies were tried in vain, he would resort to the operation proposed by Dr. Douglass, of Dublin, of eviscerating the chest and

abdomen, or of decapitating the fœtus, as advised by Dr. Ramsbotham. He had performed both operations some years ago, with success; but of late years he found sedatives, or depletion when circumstances admitted, generally efficient in allaying the contractions of the uterus. Should these fail, tartarized antimony might be tried.

With respect to the law in Dr. Hendy's case, he agreed with the magistrates. There was no law to affect the midwife; her intention was good—she meant well, though her practice was erroneous. Her object was not to kill the woman or infant, but to effect delivery. The lawyers would designate her attempt "a misadventure;" and every member of the Society must recollect a recent case at the Old Bailey, in which one of the judges declared, that the President of the College of Physicians was as much amenable to the criminal law as the most illiterate quack in the kingdom.

He had consulted some of the highest legal authorities in England upon the responsibility of medical practitioners in inducing premature labour, to save the infant, when the pelvis was deformed; and he was told it might, perhaps, be considered justifiable homicide, but there was no case on record in which a prosecution was instituted. The practice of the ignorant midwife did not come under Lord Ellenborough's or Lord Lansdowne's acts; as there was no bad intention or malice in the mind of the woman. Her failure would be termed misadventure. As to the spontaneous evolution at the full time, it was of extremely rare occurrence, and should not be expected in arm presentations. He had it from the contemporaries of Dr Denman, that he regretted the publication of his article on the subject, as it was calculated to mislead some practitioners. There never was a member of the profession less likely to mislead than the revered gentleman to whose work he alluded, or one whose precepts, in general, were so judicious and natural. Many eminent obstetric writers had never seen an example of spontaneous evolution. He had seen four cases between the sixth and seventh month, but never one at the full time; and, considering the ordinary size of the pelvis and of the fœtus, such cases must be extremely rare.

Mr. Field observed, that the society must feel obliged to Dr. Ryan for the very ample information he communicated on the subject under consideration, and should beg to ask him, or any other member, whether he had seen, in arm cases, the fœtus expelled doubled?

Dr. Ryan replied he had never seen such a case at the full term of utero-gestation, though he believed it possible.

Mr. Burt advocated the performance of turning as early as possible.

Dr. Waller said, that the question before the society was, the practice to be pursued in difficult cases of turning, for all agreed as to the necessity of the operation as soon as possible. As to the spontaneous evolution at the full time, it was of rare occurrence, for Dr. Burns never saw a case of it. The question was, what was to be done in difficult cases? A case occurred lately, in which the arm and foot presented, and to which a practitioner was called three miles; he failed to turn, sent for another, four miles distant, and he also could not succeed. He, Dr. W., was sent for, twelve miles, and found the fœtus at the brim of the pelvis, but he could not effect turning. He removed the arm, and then brought the fœtus away piece by piece, by opening the head, chest, and abdomen. The infant was dead long before his arrival. The mother did well after the operation. He ordered her a drachm of laudanum, which was to be repeated in three hours. On the twentieth day, the husband called upon him and stated, that his wife had done well until the tenth day, when she was seized with shivering and head-ache. He was requested to revisit her. She had an irregular form of intermittent, rigors, and sweating, without the hot stage,

for which he prescribed large doses of sulphate of quinine, but she ultimately died. He had a conversation with Dr. Blundell, a short time ago, when he stated he had never seen a case of spontaneous evolution at the full time.

Mr. Bryant related a case, similar to that of Mr. Proctor and Mr. Stevens, but in so low a tone that his statement was not heard by many members; we understood him to say, that he considered spontaneous evolution, at the full time, extremely improbable.

Mr. Stevens wished to observe, that he did not recommend the practice which nature suggested in the case he narrated, nor did he wish to dictate to the society what practice might be pursued when turning was found impracticable. He considered his case novel, as Dr. Ryan's ample researches led him to conclude it was of rare occurrence. He thought opening the head, as he mentioned before, might be tried with advantage.

Dr. Ryan wished to say one word in conclusion, as the hour of adjournment had arrived, and that was, that he could easily admit the statements of Mr. Proctor, Mr. Stevens, and Mr. Bryant. There was a case of monstrosity to be seen at Falcon-square, in which two perfect infants were connected by the breast and abdomen. When he considered the birth of these and similar monsters, whether by the head or feet, he could readily understand the parturition of the cases narrated this evening. Similar cases had occurred—the Hungarian sisters and the Siamese boys. He learned that three feet presented in this case; but, as the possessor of this specimen of deformity was not a member of the profession, the mechanism of parturition could not be learned.

Mr. Linnecar said, he knew the medical practitioner who attended the case, and who wrote him a letter by the present owner of the bodies. There was some private arrangement; but if Dr. Ryan, or any other member, wrote to his friend, every information would be given.

Dr. Ryan observed, that he had already written on the subject.

The Society then adjourned.

HORTICULTURAL SOCIETY.

Dr. Henderson in the Chair.—At the meeting, on Tuesday the 5th, there was a very fair exhibition of flowers for the season of the year, but the principal novelty was a proposal, "That three exhibitions shall take place at the garden of the society, on the following days:—

Saturday, the of May, for flowers,
Saturday, the of June, for flowers,
Saturday, the of July, for flowers and fruit.

"On each occasion one or more large silver medals, and four or more Banksian medals, will be awarded to the best exhibitors.

"The garden will be opened on each day to Fellows and Visitors, from one o'clock till sunset, under the following regulations:—

"All Fellows of the Society will be admitted without tickets, on signing their names in a book at the entrance. Visitors will only be admitted by tickets, to be obtained through Fellows of the Society.

"All Fellows, who shall on or before Tuesday the 2d of April, subscribe half a guinea towards defraying the necessary expenses, will receive three tickets; if they subscribe one guinea, seven; if two guineas, fifteen.

"After the 2d of April, tickets will be delivered to Fellows on their personal application, or written order, at the price of five shillings each.

"All tickets subscribed for, and not taken by the subscribers on or before Tuesday the 16th of April, will be charged five shillings each.

"Each ticket will be available for admission to either of the three exhibitions, at the option of the Visitor.

"All applications for tickets must be made at the Society's Office, 21, Regent-street, as no money will, on any account, be received at the garden.

"Messrs. Gunter are engaged to

supply refreshments, at regulated prices, to the Visitors."

Review.

A Treatise on the Physiology and Diseases of the Eye: containing a New Mode of curing Cataract without an Operation; Experiments and Observations on Vision; also on the Inflection, Reflection, and Colours of Light; together with Remarks on the Preservation of Sight, and on Spectacles, Reading-glasses, &c. By JOHN HARRISON CURTIS, Esq., Oculist, Aurist in Ordinary to His Majesty, &c. &c. &c. 8vo. pp. 222. Illustrated by a coloured Plate. London: Longman and Co. 1833.

MR. CURTIS has written a volume upon a subject of great interest to the public and to the profession.

His introduction contains many remarks on various topics, especially on the necessity of an early attention to diseases of the eye in their incipient stages, showing the hopelessness of confirmed cases, yet almost certainty of cure in recent ones; the small progress that has been made during some years in aural surgery; and closes with some ingenious observations on the structure and uses of the human body generally.

Of the physiology we need say little; nothing new can be expected on this subject. The chapter, however, embraces some entertaining comparisons of the eye in man, quadrupeds, birds, fishes, and insects; and we remember that the author adopted a like method in his Treatise on the Ear, with which we were highly gratified.

He next treats of the pathology or diseases of the eye; and in this section consists the most important part of this treatise. The subject is divided into two chapters, the first discussing the *external*, and the second the *internal* diseases of the eye. Mr. Curtis states, that it is not his intention to describe all its diseases, but only some of the most important. Under the external diseases we find ophthalmia, epiphora, ulceration, specks, and opacities of the cornea, pterygium, staphyloma, and iritis; and under internal, cataract, cancer, and amaurosis, or gutta serena. After showing what are the most usual symptoms of ophthalmia, and citing the various opinions entertained by our own as well as by continental physicians on the abstraction of blood by leeches, some preferring the temple, others the lower eyelid, and others the facial vein, Mr. Curtis says, "I am of opinion that from behind the ears is the best situation." "Blisters," he continues, "are to be applied behind the ears, or to the nape of the neck, in preference to the temple, as they increase the action of the subjacent arterial trunks in the latter situation." Of epiphora, he remarks that he has "seen it completely and permanently removed by an emetic." In ulceration of the cornea, "the first object must always be the same as in purulent ophthalmia, namely, to arrest the progress of the inflammation by relieving the engorged vessels;" to accomplish which, small bleedings, repeated occasionally, have the preference with Mr. Curtis over bleeding ad deliquium; and in this we entirely agree with him. In confirmed cases of staphyloma little can be done: to give ease, and render the deformity as little unsightly as possible, are the chief objects to be attempted. Iritis comes next, and the description of the syphilitic and arthritic species is of a most appalling character. It really does not seem to us that, except in slight or recent cases, and where the constitution is sound, complete restoration of vision is to be hoped for here.

But the internal diseases are those in which our author (who is a staunch advocate for constitutional treatment, and a determined opposer of operations) sees the most reason to expect success. Cataract is of course the first of these; and, after stating its causes and character, Mr. Curtis shows that it may be effectually removed,

and the sight restored, by very simple means, *without any operation,* "to touch the cataract every morning with a solution of the *potassa cum calce,* beginning with a weak solution, and increasing it gradually; it should be applied with a camel-hair pencil." We are utterly unable to comprehend how the opaque lens, or cataract, which is situated behind the iris, and deeply in the eye, can be touched every morning, or touched at all without a cutting instrument. But Mr. Curtis surmounts what all surgeons before him considered an absolute impossibility. Then follow some important remarks on the necessity of care, &c. in its application. "In the incipient stage of cataract," he continues, "I am convinced much good may be done, and a cure effected; but when the disease is become confirmed, and the patient is old and feeble, there is little to be expected, and the risk of an operation had better always be avoided. For, should inflammation take place after an operation, which in many instances it does, and cannot be subdued, it is sure to prove fatal. Some practitioners," he adds, "recommend that, when a cataract is newly formed, we should wait until it is fit to be operated upon. On the contrary, I think *we should use every means in our power to dissipate it as speedily as possible after it has made its appearance.*" The three modes of performing the operation are then described; but, as Mr. Curtis's mild and safe plan of *dissipating* it renders these useless, he does not occupy much space with them For cancer, the abscission of the diseased portion is the only remedy. Amaurosis next claims his attention; and, according to the different causes from which it arises, as well as the age, health, habits, &c. of the sufferer, different remedies are recommended, as venesection from the jugular vein, cupping-glasses between the shoulders, leeches to the forehead, blisters behind the ears, to the nape of the neck, laxatives, and cathartics, &c. &c. And to all this are added many excellent prescriptions at the foot of the pages, showing the proportions, &c., in which the author has found the medicaments most serviceable.

A chapter on light, written in a popular manner, comes next, and contains some extraordinary (for his age) experiments made by the present Lord Chancellor, when only sixteen years old: they will much gratify all scientific readers.

On the sight and on spectacles is the subject of the last chapter, of which we shall merely say, that whoever will attend to the sensible advice therein given will have reason to thank Mr. Curtis for unimpaired eye-sight to old age.

The conclusion sums up with some miscellaneous remarks on the ganglia; on the importance of arresting disease in its incipient forms; on the incurable character of confirmed staphyloma, arthritic iritis, and cancer, but of great encouragement to such as labour under ophthalmia, cataract, amaurosis, &c., if taken in time; on the advance of optics in this country; on acoustics; on herbs in diseases of the eye; and on the too common practice of operating on the eye where there exists no necessity for it, as though "they were cutting a cork!"

IS ARSENIURETTED HYDROGEN POISONOUS?

A QUESTION of curious interest has arisen in France, which has called forth various opinions. M. Furney, of Coligny, narrates the history of a disease very similar in all its symptoms to cholera, which he considers to have been caused by a quantity of arsenic which had been thrown into a privy. He believes that the disengagement of arseniuretted hydrogen gas was sufficient to produce this affection. Mons. Ollivier denies the possibility of gas being formed in this privy, because there was no chimney, nor any free current of air, and under such circumstances even had the gas been developed, it could not have ascended. Mr. Landibert, whilst he believes that the gas could not have

been formed, thinks that, had it been disengaged, notwithstanding its great specific gravity, it might rise up stratum by stratum.

MEDICAL REFORM PETITION TO PARLIAMENT.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN, — Numerous medical practitioners and pupils, earnestly desire that you would be pleased to give the inclosed petition a place in the columns of your valuable journal, in order that it may meet the inspection, criticisms, and revisal, if necessary, of your readers and correspondents, before it is submitted to the medical practitioners and pupils at large for signatures.

The necessity of concours you have enforced repeatedly ; and the petition will, I trust, speak for itself. The importance of such a petition will be doubly seen, when we not only take into consideration the new cast which it would give to the profession by diffusing a spirit of emulation throughout the whole of its members and the pupils, but when we also remind ourselves that the medical evidence which is shortly to be given by several members of the profession, before the corporation committee, as regards our corporate associations, cannot possibly touch the abuses in medical universities, hospitals, dispensaries, and other institutions not immediately connected with those corporations.

You must be fully aware that it is within the power of parliament to rectify all the abuses complained of in the petition, as the authority of parliament to reform is not limited to definite bounds, nor to evils existing in corporations. The abuses which the petition complains of *can* be removed, and the committee for inquiring into those of the medical institutions at large, could be either separate or combined with the committee already instituted for the purpose of inquiring into the state of corporations. This would of course be determined by parliamentary usage.

Gentlemen, — You have already nobly vindicated the rights of the pupils and the welfare of the profession, with respect to the abuses of the Anatomy Bill, practised by some few lecturers, who for a short time monopolized dissection. For this the profession is deeply indebted to you— the pupils thank you—and I thank you.

We all, as well as the community at large, had an equal interest in, and are deriving an equal advantage from, your exertions ; and we now sincerely hope, that you will open your columns in the same liberal manner for considering and discussing the enclosed petition.

I remain your obedient servant,

G. D. DERMOTT.

30, *Francis-street, Bedford-square. March 5th,* 1833.

THE HONOURABLE THE COMMONS OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND IN PARLIAMENT ASSEMBLED.

The humble petition of the undersigned medical practitioners and pupils sheweth,

That, at present, medical officers obtain their appointments in the public institutions of England either as the result of pecuniary purchase, family influence, or a process of intriguing after private interest, and generally by the aid of all these combined, without undergoing any test or scrutiny as to the comparative degree of professional talent which they, or others, may possess.

The physicians, surgeons, assistant-surgeons, and apothecaries, thus giving their appointments to hospitals and dispensaries, by a long-continued process of ferreting after the intimacy and personal favours of the non-medical governors of these institutions, these governors, it must be admitted, being quite incompetent to decide as to the depth of professional knowledge, and degree of medical acumen, which the several candidates may comparatively possess, and the electors are thus driven to the necessity of being guided

as to their election, by feelings of mere friendship.

That the house-surgeons and dressers purchase their situations, in most hospitals, with large premiums, and that the sum of *money*, not *talent*, is the only necessary desideratum, by which means the sick are likely to be victimized at the shrine of indolence and ignorance.

That the enormous fees paid by out-door pupils for the right of admission to see the sick is a disgraceful perversion of a noble and benevolent principle, and a most iniquitous tax upon knowledge.

That, with few or no exceptions, all these fees for hospital apprentices go into the pockets of the medical officers, and that these hospital apprenticeships, obtained by money, not talent and industry, are usually an introduction and passport for the individuals to further hospital appointments—honours, so called—and emoluments.

Moreover, that sentiments of political and private interest too often too much influence the appointment of medical professors even to our national institutions.

That this system is founded upon the absurd supposition that money, influence, and talent, are always concomitant; and while suited to ignorant and fawning sycophants, it is derogatory to the dignity of science, and even to the character of man; to which system few men possessing intelligence would insult science so much as to succumb.

And by this vitiated organization of the medical profession, the advantages which ought to be available to merit and industry are monopolized by those possessed of money and family influence. The talent and genius of the ablest medical men (with the exception of the few instances where merit happens to join with money or family influence) is never excited into operation, and the medical students, having no stimulus to study, sink into indolence and dissipation.

That each medical institution is thus, in itself, a *rotten borough*, a territory where a system of pecuniary interest and favoritism reigns despotic; in consequence of this, talent is doomed to obscurity, non-development, and inaction; the progress of science is wofully crippled, its glory obscured, and the welfare of the English community proportionately sacrificed.

And your petitioners presume to hope, that, by the establishment of the system hereafter set forth, scientific merit could not pass unobserved and unrewarded by distinction; by being put to the test, it would be fostered and protected; medical and surgical science in England would keep pace with the same departments on the continent; and all the genius and talent in our nation would be excited into full operation for the comfort and the welfare of mankind.

Your petitioners, therefore, humbly pray, that the elections of professors to public institutions, physicians, surgeons, assistant surgeons, and apothecaries to hospitals and dispensaries shall be conducted by a general poll or ballot of the members of that department of the profession to which the candidate belongs, at a certain hour, and at a certain place; or, if the candidate should prefer, the election shall be decided, by their reciprocally examining each other, and by each of them writing a thesis, and publicly defending the same; also (if a surgeon) by performing an operation upon the dead body, and subsequently upon the living; that a body of medical commissioners, appointed by government, to attend and preside, shall decide who is the most competent candidate, and consequently entitled to the election; (the latter plan, save the operations, would perhaps better apply to lecturers).

That the house-surgeons shall gain their election by a public examination, conducted by medical commissioners, by writing and defending a thesis, and by performing some operations upon the dead body; and that preference shall be at all times given

to him who proves the most competent.

That dressers in hospitals shall be chosen by public examination before the commissioners: that all the above examinations shall be at all times open to the public.

Your petitioners, therefore, humbly pray, that your Honourable House will institute an inquiry into these facts, or lay them before the committee now sitting on corporate bodies, for the purpose of deciding whether it would be more advantageous to the interest of science and of society to adopt the plan herein respectfully submitted.

And your petitioners, as in duty bound, will ever pray.

CHAPLAINS TO LUNATIC ASYLUMS.

THE following very sensible and judicious letter reflects great credit on its author. Every point set forth is in accordance with sound medical opinion.

To the Governors of the General Lunatic Asylum, near Nottingham.

MY LORDS AND GENTLEMEN,—As a circular letter has been addressed to you on the subject of the necessity of appointing a Chaplain to the Institution which you govern; and, as much discussion, both private and public, has since taken place on that important question, I have thought it my duty, as Physician to the Asylum, to offer you, with all due deference, a few remarks, as well on the expediency of that measure, as on the line of conduct proper to be adopted by a clergyman, in his official duties towards the insane. In taking this liberty, however, I beg it to be clearly understood, that I do not pretend to enter, in the slightest degree, into religious discussion, or to attempt to dictate to the divine, beyond the precincts of the treatment of insanity.

Previous to your decision on the question of the appointment of a chaplain, you, at the last annual meeting, did me the honour to ask my opinion as to the propriety of such a measure. I then gave it my support on the following grounds:—

1st. In order to afford the comforts of religion to those patients who might be found capable of deriving benefit from them, in a purely spiritual point of view; and, at the same time, to enable keepers, nurses, servants, &c., attached to the institution, to enjoy the same advantage.

2d. With a view to increase our moral means of cure, by the mental restraint, which the solemnities of divine worship are calculated to impose on persons susceptible of such impressions.

3d. Though last, not least, to give consolation to the relations and friends of the unfortunate inmates of your asylum, from the conviction, that in their affliction they will not be deprived of religion—that most enviable solace of all human misfortune; and by so doing, to raise the reputation of your establishment.

I also took occasion to observe, at the meeting alluded to, that many cases of insanity existed, which might be exasperated by religious ministrations; in consequence of which, you kindly determined, that the selection of patients to attend religious worship should be altogether under the control of your medical officers. This regulation is at once liberal and philosophical, and will tend to prevent the evil consequences which must have otherwise arisen, from the indiscriminate attendance of lunatics on divine service; but unless an exceedingly limited selection be made, there are still other essential precautions to be observed, in order to prevent the irreparable mischief which a fanatic might occasion, in a congregation composed of insane persons, educated in various creeds and forms of worship.

Dr. Burrows, in his well-known work, says, "Suppose a certain number of lunatics were selected, whose cure, it may be thought, religious instruction will facilitate—is it not clear that the spiritual admonitions which

may be adapted to one, may be a source of irritation to another?—for where men who are called sane, are so exceedingly tenacious about the mere forms and ceremonies of worship, and are thence impelled to acts little short of madness, how can we imagine that among a number, some insane, some weak of intellect, and some not confirmed yet in judgment, that offence should not be taken, if the doctrine or rites most consonant with each patient's notions be not preferred?"

Indeed, if we consider for a moment the deep interests inseparable from the exercise of religious sentiments, it will appear evident how much must depend on the judgment and discretion with which prayers are selected for a congregation professing such heterogeneous tenets and principles of religion. The important axiom in the treatment of insanity, "Not to entertain a lunatic on the subject of his delusion," should be strongly impressed on the minds of all persons, whether ecclesiastic or layman, employed in ministering to his spiritual or temporal comforts.

Dr. Comb, in his work on mental derangement, judiciously remarks—"The clergyman ought to be on his guard not to introduce depressing views, contested or abstract doctrinal points, which such an audience might easily misunderstand, and by ruminating on which, some of their worst symptoms might be exasperated."

The duties of a chaplain to an hospital, and those to be performed in an asylum, are very different; the inmates of the former enjoy the blessings of reason, which enable them to select their pastor, and indulge in their peculiar religious bias, while those of the latter do not possess the same advantages, although their religious prejudices may have been much increased by the circumstance of their intellect being weakened: hence the great necessity of exercising all possible discrimination in the choice of their spiritual adviser, who, while he cannot be endowed with too great a share of prudence, ought to be altogether devoid of ultra religious enthusiasm, which, however praiseworthy it may be, when sincere, in this case would be productive of incalculable evil.

The compilation or composition of a set of prayers, so formed as not to touch on doctrinal points, and at the same time to embrace the consolatory parts of christianity, so as to be applicable to such a "motley congregation," as Dr. Burrows designates it, would be a desideratum to all lunatic asylums, and would, in an eminent degree, tend to facilitate the attainment of your benevolent views, in wishing to extend the blessings of religion to that interesting class of our fellow creatures, the insane.

Having endeavoured to perform what I consider a duty, in submitting to you, previous to the approaching election of a chaplain to the Asylum, my humble opinions on the propriety of the appointment, as well as on the line of conduct which that officer ought to adopt towards persons whose mental faculties have been weakened by disease, I shall, in conclusion, take the liberty to give you a paragraph from the sixteenth Report of the Glasgow Lunatic Asylum, for the year 1830. I am induced to do so, as that establishment has acquired no small portion of its fame from having long enjoyed the assistance of religion; and as its officers, having had their attention particularly directed to its general effects, have been enabled to observe the highly injurious result of "overweening zeal" in matters of religion on intellectual sanity.

Although this paragraph does not bear directly on the subject of the present letter, I hope it may not be deemed uninteresting to you, as it regards society at large, and emanates from men of considerable experience in the causes and treatment of mental diseases.

"Another cause of lunacy, which, within the last year, appears to have been more actively in operation than formerly, and which has served to increase the number of our patients, is, the influence of erroneous impressions

of religion. Mental derangement never can be produced by just views of the essential truths of the gospel; but intense and long-protracted meditation on abstruse points of religious doctrine, or on prophetic mystery—remorse, in highly sensitive minds, on account of supposed unpardonable sins—and above all, innovation in established religious belief—have been fruitful causes of insanity. In a recent publication, an eminent physician, of great experience in the treatment of mental derangement, remarks:—'Were I to allege one cause, which I thought was operating, with more force than another, to increase the victims of insanity, I should pronounce that it was the overweening zeal with which it is attempted to impress on youth the subtle distinctions of theology, and an unrelenting devotion to a dubious doctrine. This practice is an alarming error—it is growing to an excess fatal to the preservation of intellectual sanity, and, in a manner, especially dangerous to the rising generation.' We would recommend to parents and guardians to use their best efforts against the influence of new and questionable religious doctrines. The mental distress, occasioned by the conflict between such doctrines and earlier religious impressions, ends often in confirmed maniacal melancholy; or, as there is a tendency to re-action in our moral as well as in our physical nature, we have seen a sudden transition from the deepest self-abasement to triumphant confidence, with belief in supernatural communications, miraculous gifts, and all the phantasies of an insane mind. Such madness is lamentable in itself, but in some instances doubly lamentable; when the patient awakes from his delusion, the religious opinions are then unsettled."

I have the honour to be,
My Lords and Gentlemen,
Your most obedient humble servant,

ANDREW BLAKE, M.D.
Phys. to the Nottingham Lunatic Asylum.
Parliament-street, Feb. 1833.

DEFENCE OF GENERAL PRACTITIONERS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—In the fifty-fifth number of your valuable periodical, is a letter, signed H. L. J., in which the statements are so false, that I feel it to be my duty to advert to them. I cannot, like your correspondent, subscribe myself a constant reader of your journal, nor can I boast of any of you having attended my near relatives, but I feel, notwithstanding, probably as much respect for you as the writer in question. He wishes to make your readers believe that "Chemists' apprentices are good *Greek* scholars; that during the first two or three years of their apprenticeships they do little more than give their constant attention, under the direction of their masters, to the preparation of pharmaceuticals, the inspection and preparing drugs and chemicals, the perusal of prescriptions, and works upon practical chemistry, reagents, &c. &c. and at the expiration of this period, most of them, if not all, enter first a wholesale house, then a retail one, to gain still more experience;" he goes on to state, "that the most respectable physicians and apothecaries have their supply of drugs and chemicals from retail druggists," and concludes his letter by asking, "how he can gain his bread if not by dispensing medicines?" His statements with regard to the learning, &c. acquired by his brethren, are so erroneous that it would be a loss of time to comment upon them. The observation respecting the supply of drugs to physicians and apothecaries may be correct, but does this, let me ask, qualify him for the treatment of disease? or even admitting all his assertions to be true, ought an individual, so educated, to be allowed to prescribe for any unfortunate being who may enter his shop? The mistakes committed by these prescribing

druggists are so numerous, that I am confident that many thousands of lives are yearly sacrificed. A case which I will relate occurred to me some time since, which made a deep impression, and I have no doubt but that the generality of your readers have met with many such. I was called to see a young man, who had effusion upon the brain, and died a short time afterwards; on making inquiries of his friends, I ascertained that for some days previous to his death he had been able to crawl to the shop of a chemist and druggist, who told him that he was only suffering from bile, and would do very well. I need not add, that this man, had he been properly treated in the first instance, would probably have been alive at the present time. I could fill your pages with innumerable instances of this kind, but the above will suffice. In reply to his question, I would advise him and all his brethren to confine themselves to the sale of drugs, tooth-brushes, and soap, and not to infringe on the rights of the general practitioner: should this system continue, it appears to me that general practitioners must resolve to obtain their drugs from wholesale houses, and not in any way patronize these individuals.

I must apologize for having trespassed so much on your valuable pages, and beg to subscribe myself,

Gentlemen, yours respectfully,

A GENERAL PRACTITIONER.

P. S. I had nearly overlooked his menacing postscript; and should he be able to prove (as he has threatened) that a general practitioner sells and even prepares patent medicines, it will probably be found that the person alluded to has been driven to this practice, in consequence of the encroachments of chemists and druggists.

March 1, 1833.

ABUSES IN THE MEDICAL SCHOOL AT ST. BARTHOLOMEW'S HOSPITAL.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—Knowing your impartiality and constant readiness on all occasions to promote the rights and legal interests of medical students, and to give publicity to the many abuses to which they are exposed, I deem it expedient on the present occasion to solicit of you the insertion of the following article in your truly excellent journal, which I hope might lead to its abolition.

It is at St. Bartholomew's Hospital that the dressers of the surgeons think proper to exert that unwarrantable influence over casual circumstances as shall prove beneficial to themselves alone, thus debarring the general students of the opportunity of participation.

The subject of post mortem examinations, to which I intend particularly to allude, has been for some time past, and is now, conducted in the most inefficient, unsatisfactory, and shameful manner. I would direct attention to the very inconvenient and excessively ill-adapted period at which these post mortem *examinations* very frequently occur; for though posted at a very eligible hour, it is unusual to find that hour adhered to, thereby giving rise to an interference with Mr. Stanley's anatomical lecture, which fact I impute to the unwarrantable influence exerted by the dressers, the veracity of which I am able to prove; and further, I would mention how very ill-suited is the building allotted for these examinations for the purpose which is assigned it: it was stated the governors were contemplating the erection of another, but I apprehend they will forget it, unless their memory be refreshed.

And last, though not least, I would urge the absolute necessity which exists for an able pathologist to superintend such examinations, and to explain aloud to the students present

the morbid specimen before him; it is usual now to see pupils gathered together in groups, collecting what scattered facts they can from one and another, thereby rendering the whole a scene of confusion, wholly devoid of system and design.

With every apology for such an intrusion on your pages,

I subscribe myself,

AMICUS JUSTITIÆ.

March 4th, 1833.

CONDITION OF COUNTRY GENERAL PRACTITIONERS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—During the period of my late pupilage at the Borough schools, oftentimes did I contemplate with pride and satisfaction, on the great advantages which must be conferred on me in country practice were I fortunate enough to pass my examinations at the Hall and College; thirteen hours daily of close application to study for eighteen months would, I anxiously expected, benefit me in after life, independent of high honors and great privileges, supposed to belong to diplomas of qualification.

Unfortunately, I valued these honors and privileges too highly; for in practice, paradoxical as it may appear, I have suffered from their possession. Money that would comfortably have supported me through life is in a great measure expended; and when I look around, my brother practitioners for the most part are young men, practising without licence, charging nothing for attendance, and almost nothing for medicine. Of their abilities, I say nothing; and in country practice it avails little: in cases of danger, they speedily call in a friend of theirs in the profession, who dexterously manages to take off the whole or part of the responsibility, and places it to his own account; frequently some distance from the scene of death.

I trust some alteration will soon take place in the existing medical law, even if it did not extend beyond the appointment of one or two commissioners to examine every one keeping an apothecary's shop, and practising medicine: and provided it could not be satisfactorily proved that the examined was legally qualified to practise, to report the same; and, if necessary, bring the case to trial: this plan, if adopted, would make the profession honorable, would rid it of hundreds of ignorant, audacious impostors, at present fattening on its scientific ruins.

I am, gentlemen,

Yours, respectfully,

A POOR COUNTRY PRACTITIONER.

LIGATURE OF ARTERIES.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—Mr. Cooper, in his valuable lecture, published in your Journal of the 2d of March, asks, "what practitioner, before the æra of Dr. Jones, had satisfactorily explained the principles by which the choice and application of ligatures, and, in fact, of every means for stopping hæmorrhage, ought to be determined?"

In answer to which, I reply, that Dr. Veitch, while one of the principal surgeons of Plymouth Hospital, had reduced these principles to practice, by demonstrating the form and arrangement of the ligatures in all wounds, and by the mode of dressing these, after operations; as it is the small ligatures, with their distribution so effectually diminishing irritation, that constitutes the essential improvement in surgical operations before the work of Dr. Jones was published, or his name known.

In truth, the practical essay of Dr. Veitch was one great means of establishing the doctrines of Dr. Jones, as it is well known, that his recommendations were not adopted at the Edinburgh Infirmary until the publication of the Essay of Dr. Veitch on the Ligature of Arteries.

Dr. Jones never tied an artery in the living human body, and consequently

could not have been the author of such practice in surgery.

I regret that Mr. Cooper, whom I believe to be a man of honour and a friend to truth, and consequently anxious to do justice, should have overlooked this fact, which is of so much importance in the history of surgery.

I have the honour to be,
Gentlemen,
Your obedient servant,
A FRIEND OF TRUTH,
and formerly an assistant to Dr. Veitch.

Hospital Report.

GUY'S HOSPITAL.

An Amputation.

JOHN BOWEN, æt. 18, an unhealthy, scrofulous-looking lad, came into the hospital under the care of Mr. B. Cooper, with a large swelling on the outer side of the left ancle, for which he can give little or no account; he ascribes it to working hard on board a ship. The ancle-joint becoming affected with ulceration of the cartilage, and his health beginning to suffer, Mr. Cooper determined on its removal.

Tuesday, February 26. The circular operation below the knee-joint was performed, and the vessels secured. The tibia was enlarged and softened, and gave one the idea of cartilage. The fibula was also softened, but not enlarged.

Mr. Callaway then removed a steatomatous tumour.

BOOKS.

The Principles and Illustrations of Morbid Anatomy, adapted to the Elements of Andral, and the Cyclopædia; being a complete Series of Coloured Lithographic Drawings, from Originals by the Author, with Descriptions and Summary Allusions to Cases, Symptoms, Treatment, &c., designed as an Appendix to Works on the Practice of Medicine, and to facilitate the Study of Morbid Anatomy in connexion with Symptoms. By J. HOPE, M.D., F.R.S., Physician to the Mary-le-bone Infirmary, &c. London: March 1st, 1833, royal 8vo., 4 spendidly coloured plates. Whittaker, Treacher, and Co.

A short Treatise on the Operation of Cupping. By MONSON HILLS, Cupper to Guy's Hospital. London, 1832. E. Cox.

An excellent guide for students.

Letters on Cholera Asphyxia, as it appeared in New York. By MARTYN PAINE, M.D. New York, 1832. Collins and Hanny.

Clinical Illustrations on the most important Diseases of Bengal, with the Result of an Inquiry into their Pathology and Treatment. By WILLIAM TWINING, M.R.C.S., &c., First Assistant-Surgeon to the General Hospital, Calcutta. Calcutta, 1832. 8vo. pp. 705. London: Parbury, Allen, and Co.

The author is very favourably known to the Profession by his useful labours. He evinces great judgment in the work before us. It will be a valuable manual to those intended for the India service.

The Mother's Nursery Guide, and Medical Instructor, for the Use of Parents and Nurses on the Rearing and Management of Children.

This is a foolish production, and can neither interest the general nor medical reader.

The Dublin Journal of Medical and Chemical Science, exhibiting a comprehensive View of the latest Discoveries in Medicine, Surgery, Chemistry, and the Collateral Sciences. No. VII. March.

The Dissector. By R. DEWEY FORSTER, Surgeon. Folio. Plates. London, 1833. Burgess and Hill.

The Demonstrator; being an Explanation of the Dissection of the Human Body. By R. DEWEY FORSTER, Surgeon. 8vo. pp. 50.

These works are calculated to facilitate the labours of anatomical students.

CORRESPONDENTS.

Mr. Dermott's pupils have entered into a subscription to present him with a piece of plate. We feel obliged to Mr. Lunn, the Secretary, for his communication, for which we regret we cannot find room, more especially as we already have inserted a letter and petition issuing from that school.

Damages and Costs against Dr. Ryan for defending the honour and dignity of the Medical Profession nearly £800.

Amount of Subscriptions already received in aid of Dr. Ryan . .	£215	1	0
An Enemy to Quackery . .	2	2	0
A Friend	1	0	0
— Esdaile, Esq. Sloane-street .	0	5	0
J. Mullins, Esq. King's-road, Chelsea	0	5	0
G. Rowe, Esq. Smith-street .	0	2	6
— Wilson, Esq. Fulham-road .	0	2	6

ALL Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 60. SATURDAY, MARCH 23, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXVIII., DELIVERED DEC. 6, 1832.

Gentlemen,—The disposition of all recently cut surfaces, and of all simple incised wounds, to unite by adhesion, without any suppuration, must have been known in the most remote ages; and, however unskilful the ancients were in their manner of treating wounds generally, they could hardly fail to be aware of this fact. Their writings, indeed, leave no doubt, that they were in possession of this information; for you may read in Celsus, that the Roman surgeons were acquainted with the art of curing certain deformities and mutilations on the principle of promoting a direct union between the opposite surfaces of a recent wound. Here I may refer to the harelip, which they knew how to cure by paring off the edges of the fissure, and bringing the fresh-cut surfaces together. Nor was it in this case alone that they manifested a knowledge of the fact to which I have alluded; but also in the treatment of those deformities which arose from deficiency of parts,—as where a portion of the nose, or the whole of it, was wanting: such deformities were diminished or cured by them, for which purpose they put in practice the very same principle. In these instances, it must have been manifest to them, how quickly union took place between the surfaces brought together and maintained in contact; yet they did not avail themselves of the knowledge of this very important fact, in the treatment of wounds in general. Nor did the principle receive any further elucidation till the time of Taliacotius, Professor of Anatomy and Surgery at Bologna, in the 16th century, who wrote a work, containing many valuable observations respecting the tendency of recently divided parts of the animal body to grow together. The object of his work, however, chiefly related to the cure of deformities on this principle, and especially to the formation of a new nose, by turning down a flap from the forehead, or some other part of the face; but, in delivering his sentiments and explaining his own practice in such cases, he brought forward arguments and facts, exhibiting in the clearest and most convincing manner, the disposition in the surfaces of all recent incised wounds to grow together, when brought into contact. As for the art of forming a new nose, you will not be surprised at the minute care with which it was studied in ancient times, when you remember what Taliacotius states, on the authority, I think, of Josephus, namely, that, in some countries, this feature in perfection was then deemed a surer emblem of every thing that was great and good in the human character, than any points now urged by the admirers of phrenology: hence, the highest offices in the state, and even the regal dignity, were sometimes conferred upon those who had the best formed and largest noses. Such noses were considered as evidence of intellectual power, and gained even more respect, than a well-formed cranium. Taliacotius, also, makes some interesting observations on the analogy between the re-union of divided parts in the living animal, and the process which takes place in the grafting of trees, referring to what Columella had said on the latter subject, who was an agriculturist in the reign of the emperor Claudius.

Gentlemen, when we have advanced further into these lectures, I shall have to call your attention to one method of amputating, in which a flap is formed to cover the end of the stump. The invention of flap amputations has been occasionally imputed to Verduin, a French surgeon; but Charles Lowdham, a practitioner at Plymouth, in the 17th century, has a prior claim to this merit; and his peculiar method of operating is described by his friend, James Yonge, in a curious work, entitled "*Currus Triumphalis ex Terebintho.*" This book is

interesting, not merely for the observations in it concerning amputations, but for the reflections contained in it relative to the cure of the stump by the adhesive inflammation, a plan which Lowdham actually practised. Hardly any further progress was made in the extension of this method of cure, to other cases, till nearly the time of Mr. John Hunter, when the valuable and original doctrines, promulgated by him, on the usefulness of the adhesive inflammation, communicated an impulse to this part of surgery, which no longer suffered the subject to be neglected. Here, also, I ought not to forget the merit of Alanson, whose treatise on amputation had vast influence in establishing the mode of treating wounds, with the view of healing them at once without suppuration. John Hunter repeated several experiments formerly made by Du Hamel, and undertook others devised by himself, all illustrating the tendency of recently divided parts of the animal body to grow together when kept in contact. Nay, they demonstrated, that, under some circumstances, parts completely detached from the body might again become adherent, and live and grow as well as if they had never been separated. In one of Mr. Hunter's experiments, he took the testicles of a cock and put them into the abdomen of a hen. After a certain time he killed the hen, and found that the testicles had acquired a complete vascular connexion with the parts amongst which they were placed. In another experiment, he transplanted teeth from the jaw of one individual to that of another, and found that they became firmly fixed there. One curious experiment was that which had been previously made by Du Hamel. The spur of a young cock was cut off and inserted in its comb, where it adhered and grew with perfect facility. The spur of one cock was also inserted in the comb of another, and there also it became attached, and grew very well; and not only did these spurs readily grow in the places specified, but they actually became larger, than they would have done in their natural situations.

Besides these experiments, cases are on record, proving that parts of the human body, that have even been completely detached, have been united to it again. Garengeot relates a case, in which a quarrel took place between two men, one of whom, in his anger, bit off the other's nose, which fell into the kennel. The nose having been picked up, washed, and replaced, actually became a permanent part on the man's face again. This case has sometimes been doubted; and Mr. John Bell, who is very witty on the subject, is quite sceptical about Garengeot's statement. After all, however, it might be true; for cases are related, and well authenticated ones, too, which are fully as marvellous. In support of what I have now remarked, let me refer you to a report of various facts relative to this question, drawn up by Dr. Balfour. The experiments and cases, which I have quoted, at all events, exemplify the strong propensity of two recently divided surfaces to unite again; but, when parts are completely separated from the body, as the nose was in the instance mentioned by Garengeot, of course, you will not often succeed in effecting a re-union. However, if there should happen to be a small slip of skin, only a few fibres of any texture, remaining undivided, this circumstance makes a great difference, one that is particularly favourable. You will find that Larrey, in his Mémoires de Chirurgie Militaire, adduces cases, in which the greater part of the face was detached by the stroke of a sabre, with the exception of a very trivial connexion, yet all these wounds healed well, and the parts readily united again, though their attachment, directly after the accident, had been most slender. The knowledge of these facts, gentlemen, ought to inspire you with a just confidence in the power of nature to unite wounded parts; and, at any rate, they prove that you should never be hasty in cutting away parts, for, though they may retain only a small apparently insignificant connexion with the rest of the body, they may frequently be preserved and united to it. If a part, thus nearly separated, be not much injured or bruised, it will generally admit of re-union.

Now, gentlemen, in endeavouring to bring about union by the first intention, two indications present themselves, which you should bear in mind. The first is *to bring the sides of the wound evenly together, and to* KEEP THEM SO. The second is *to take means to prevent the inflammation from rising to that degree, which would prevent* THE DIRECT UNION OF THE PARTS FROM TAKING PLACE. The first indication, namely, that of bringing the divided surfaces into contact, and maintaining them in that position, is accomplished by the following means: first by *position;* you place the part, or limb, in such a position, as will lessen its tension as much as possible, and especially in such a position as will relax the muscles situated near the wound, or implicated in it. When these are relaxed, you can more easily bring the sides of the wound together, which will then be less disposed to recede from each other again. Secondly, for the purpose of fulfilling the first indication, you may employ a *bandage,* the application of which is generally preceded by the use of adhesive plaster, and other dressings. One kind of bandage is called, from its use in certain wounds, the *uniting one,* but it is not much employed at the present day; indeed, I don't think it has ever fallen to my lot to see it applied to a wound, but you will hear of its occasional application to longitudinal wounds, both of the trunk and the extremities. You apply it in the following manner:—you take a double-headed roller, and, supposing there were a wound of this description along the front of the thigh, you place the centre of the bandage on the back of the limb, and bringing the two heads to the front, you draw the parts to-

gether; you then make a slit in one portion of the bandage, and push the head of the other half of the roller through it. Holding one head of the bandage in each hand, you now draw the sides of the cut completely together, and pass the bandage round the limb again. As soon as you have brought the two heads to the front of the thigh again, you make another slit, and pass one head through it, in the same manner as before, and you proceed thus with the bandage as far up or down the part as may be necessary. This bandage is not at present in much favour with practical surgeons; in fact, several objections may be made to it: the first is, that it cannot lie smoothly over the line of the wound, where it is thrown into irregular folds, which may even render the cicatrix uneven. Another objection is the difficulty of taking off the bandage, which cannot be accomplished without serious disturbance of the wounded part, and hence you are compelled to cut it off. For such reasons, it has been almost superseded by the *many-tailed*, or *eighteen-tailed bandage*, as it is sometimes called, which is made by first taking a longitudinal piece of common roller, and sewing on it as many transverse pieces of the same roller, as the extent of the wound may require; you put the bandage under the part, and then lay down the transverse pieces, one after another, with the greatest regularity and smoothness, so as to cover the wound, and bring its sides together. Sometimes, the transverse pieces are not sewed, and then you can withdraw any of them, which are soiled with the discharge, and replace them with clean ones, without any disturbance of the part. For this purpose, you attach a fresh slip of bandage to one end of the piece you are about to remove, and then, as you draw away the latter, the former takes its place. The many-tailed bandage is of extensive use in surgery: I shall have an opportunity of showing it to you, when we come to the subject of fractures. For slight wounds, and others in particular situations, a common roller answers very well, but the many-tailed bandage has advantages over it, because it enables you to apply pressure in the best direction, and it admits of being undone and taken off, without lifting the part up, or at all disturbing it. Surgeons apply it chiefly to the limbs, but it may be put on the trunk, for the cure of the wound of the Cæsarean operation, and other extensive penetrating wounds of the abdomen. Let me now caution you not to apply any bandage too tightly to a wound in the first instance; for, if you were to do so, the degree of constriction, afterwards produced, by the swelling of the part, would be likely to cause gangrene. *Adhesive plaster* is more invariably employed as a means of promoting union by the first intention, than any other plan, though frequently in conjunction with position and a bandage. No doubt, you are familiarly acquainted with the manner of applying it in slips, varying in breadth from one quarter of an inch to two inches, according to the size of the wound for which they are required. The principle to be attended to in their application, is only to put on as many slips as are absolutely necessary to bring the sides of the wound properly together, and you leave a small interspace between every two slips of plaster. You need not cover the whole of the wound, for if you were to do so, and any matter were to form, it would be confined, and have the pernicious effect of separating the sides of the wound, and preventing adhesion; but if you leave outlets for the discharge between the slips of plaster, the risk of this mischief will be lessened. But, gentlemen, there is another reason why you should not cover the whole of the wound, namely, when you have been obliged to tie any arteries, it is necessary to bring the ends of the ligatures out of the wound, and to arrange them in such a way, that they may come out at the nearest point of the line of union. If you can place them in a depending situation, without their having to pass through a great extent of the wound, you may adopt this method; for then whatever matter is formed around them will come away freely. It is always a wise maxim to leave as little extraneous matter in the wound as possible, and it is this consideration, which leads us generally to arrange the ligatures in such a manner, that they will hang out of the wound at that point of the line of union, which is nearest to the tied vessels. Another means for keeping the sides of a wound in contact are *sutures*; they are not at present so commonly used as they were half a century ago. It is now known, that, if you can keep the sides of a wound together without sutures, you should dispense with them, as a source of unnecessary irritation. At the points where they are applied, they unavoidably cause suppuration, and where the patient is predisposed to erysipelas, they frequently excite it. The *interrupted*, the *quilled*, and the *twisted sutures*, are those which are usually described.

The first, or the *interrupted suture*, is very simple; it is made with a curved needle, armed with a ligature, which should commonly be rather wider than that used for the tying of arteries, for if it be very slender, it will cut its way out prematurely. This ligature is introduced from a quarter of an inch to the eighth of an inch from the edge of the wound, and carried about a quarter of an inch below the level of the skin. On one side, it is introduced from without inwards, and on the other side, from within outwards. Then the parts are drawn together, and the two ends of the ligature tied together in a bow. However, there is no great objection to tying them in a knot; for when the suture has performed its office, you may easily cut the ligature, and withdraw it. As for the *quilled suture*, it is hardly ever used by modern surgeons; but you will often read of it in books; I must therefore describe it to you. You begin in the same way as with the interrupted

suture, you introduce two or three ligatures in this manner (the professor showed the method), and then apply a piece of quill, or bougie, along one edge of the wound. The ligatures, which are double ones, are then tied over the quill, or bougie, and afterwards drawn towards the other side of the wound, where they are tied over another piece of quill, or bougie. I am not aware of this particular kind of suture having any real advantage over the common interrupted suture; but, fifty or sixty years ago, surgeons were very partial to it, and it was thought to have more effect in bringing the deeper parts of the wound together. The *twisted suture* will be shown to you when I come to the operation for the cure of harelip; it is chiefly used where the wounded parts are much exposed to motion, or where the wound extends into some cavity; hence it is applicable to wounds of the lips and face, and to other cases, where it is an object to secure the apposition of the parts at all events for a certain number of hours, in order that they may unite, though liable to disturbance by the action of muscles, or function of the part. You pass a small silver pin, with a steel point, through the lips of the wound, and then a ligature round it, in the form of a figure of 8; the sides of the wound are thus brought evenly into contact, and there is one especial advantage possessed by this kind of suture, namely, that it is impossible for the parts to be separated for some time, though so circumstanced, perhaps, as to be continually exposed to more or less motion.

Gentlemen, I may next remark, that surgeons of the present day do not consider it advantageous to cover wounds with a great mass of dressings, as was the custom twenty or thirty years ago. At that period, practitioners put over the adhesive plasters, first a heap of lint, then plasters again, covered with a thick pledget, an extraordinary mass of tow, a bandage, frequently of flannel, and, to crown the whole, a woollen cap for stumps. But the practice is now quite changed; wounds are now dressed as lightly as possible; you first apply only just as much sticking-plaster, as is necessary to hold the sides of the wound together, leaving an interspace between every two strips for other parts: you put over the plaster a little lint, or a light pledget, supported by a bandage of not too thick and heavy a description. When a great quantity of dressings is put on, the effect must be disadvantageous; the temperature of the part will be kept too high; and the occurrence of inflammation or erysipelas promoted. The lighter the dressings are, the better; and whatever pressure may be necessary can be made with the bandage. Sticking-plaster, and sutures act principally on the superficial parts of the wound; but the bandage will act on the deep as well as the superficial parts.

With regard to the second indication in endeavouring to procure union by the first intention, namely, that of *keeping down the inflammation*, it can only be accomplished by antiphlogistic treatment, low diet, the avoidance of stimuli, attention to quietude of the part, &c. Sometimes the patient will complain of pain, uneasiness, heat, and throbbing in the wound after it has been dressed; you should then consider whether the bandage may not be too tight; for, this is not an unfrequent cause of the inconveniences alluded to. When this is the case, you should immediately loosen it, or remove it altogether; under such circumstances, you will often relieve the patient very much by the application of cold water to the dressings, so as to keep up a continual evaporation from the part; you may apply either cold spring water or the liquor plumbi acetatis dilutus. When you wet the dressings in this manner, you should be sure that the roller, if left on, is slack; for wetting it will make it shrink and increase its tightness; and, in this manner, the parts might suffer such constriction as to be in danger of mortifying. When I was on the continent, during the war, I think that many cases of mortification from tight bandages came under my observation. Ever since this period, my aversion to them has been increased.

Now, gentlemen, I will mention a few rules which you will find it useful to remember in dressing wounds.

1. If, on removing the first dressings, you find that the wound is every where united, except in the situation of the sutures, you should withdraw them, because they create irritation, and can be of no further use: indeed, I am of opinion, that the sutures ought generally to be removed at the first change of dressings, whether the parts are united or not; for if the sutures do not answer in three or four days, they will never answer at all. I may therefore lay it down as a common rule, always to remove the sutures when you take off the first dressings.

2. Next, when you are dressing wounds, I recommend you always to proceed in the gentlest manner possible, and never to probe them out of mere curiosity. If you had reason to suspect some extraneous substance to be lodged in the wound, this would be a good reason for the practice; but, you should never introduce a probe, unless you have a rational object in view.

3. Then, gentlemen, another rule is, always to have the new dressings ready before you take off the old ones; you must also be careful to have sponges and warm water at hand; for the wound should not remain uncovered any longer than can be avoided.

4. You should also consider in what position the patient will be best able to bear the fatigue of having his wounds dressed; for sometimes the patient becomes completely exhausted by being compelled to continue in one posture while a large wound is being dressed; and if he were to alter his position in the midst of the business, there might be inconvenience.

Hence, place him at first in the most favourable position.

5. When you are removing the strips of sticking-plaster, always wet them with warm water, so that they may come off easily; by this means, you will prevent much irritation and severe pain. It is necessary to wet not only the adhesive plaster, but also the lint, which often sticks, and is very hard; but, on being moistened with a little warm water, it is softened, and may then be readily taken off without pain.

6. When arteries have been tied, you must be careful that the ligatures are not entangled with the dressings, and pulled carelessly away with them. You might thus bring on secondary hæmorrhage.

7. With regard to the mode of taking off the sticking-plasters, I may remark, that you should not draw the whole of a strip off in one direction, for this plan would pull the edges of the wound asunder. The rule is, gently to separate one end, until you come near the wound, and then to take off the other end in the same manner; the plaster may thus be removed without mischief.

8. The next maxim is, when you are dressing a large wound, never to leave the whole of it uncovered and unsupported at the same time: thus, when you are dressing the stump of a thigh, you take off at first two or three strips of plaster, and let the discharge come away, or tenderly wash it away: you then replace the plasters first taken off, and, for greater security, you direct an assistant to support the stump with his hands, in order to keep the parts from becoming retracted and separated; for their mere weight may break the adhesions, which in the first instance are but slight. You afterwards remove another portion of the plaster, and so on, always taking care, that the whole wound may not be uncovered and unsupported.

9. Gentlemen, when there is much discharge, I would advise you not to press the wound much to get it out; for that would cause great pain: it is better to wash it gently away. In a few instances, a degree of pressure may be necessary, but it ought to be avoided as much as possible.

10. When several wounds in the same person require to be dressed, I need scarcely remind you, that it is best to finish one, before you remove the dressings from another.

11. Another maxim, to which it is very necessary to attend, is always to enforce cleanliness, with the utmost strictness, and more especially when the wound is extensive. You should protect the bedding by placing oilskin under the limb or part: this will prevent the sheets and blankets from being saturated with the discharge and becoming offensive. In all the military hospitals, which I have attended, large pieces of oilskin were in constant use for this purpose, and I can speak of their usefulness from experience. When the discharge is copious, and the weather warm, you may bathe the parts, and sprinkle the bedding and floor with the solution of the chloruret of sodium, in order to prevent the unpleasant effluvia.

Lastly, gentlemen, with respect to the frequency of dressing, I may observe, that this will depend on the quantity of the discharge, and the temperature of the atmosphere: in hot weather, it is necessary to remove the dressings more frequently, than when the season is cold, on account of the discharge becoming sooner offensive. You should also consult the ease of the patient. At the present day, surgeons do not change the dressings quite so frequently as was formerly done. Mr. Liston, of Edinburgh, has a particular method of treating incised wounds, for, sometimes he never changes the dressings at all. He closes the wound with slips of ribbon, glazed with a solution of isinglass in brandy. This plaster is as adherent as the common sticking-plaster, and less irritating. He uses no sutures, and merely brings the parts together by applying the strips of his plaster. Interspaces are left between them, and all that is further done is to apply linen wet with cold water. If these dressings are productive of no uneasiness to the patient, he lets them remain till the cure is completed. I believe, that the application of cold water is more serviceable to wounds, than covering them with a mass of lint and pledgets.

Gentlemen, I have next to offer some remarks on the nature of the process called *union by the first intention*. You are already aware of the doctrine to which I incline, that it is better not to be in too great haste to close the wound; and that a short delay, in order to let the oozing of blood cease, is advantageous, because, at any rate, blood is a less certain medium of union than coagulating lymph, and more likely to accumulate, and separate the two sides of the wound, than promote their union: but this rule applies only to wounds of a certain size; for superficial wounds have no cavity, in which the blood can accumulate to any hurtful extent. The case is different after amputation of the thigh: here there is a deep cavity, and if the oozing of blood go on in it, the quantity collected may be sufficient to interfere very much with the surgeon's aim to accomplish union by the first intention. Here a bandage may be of important use; for, by its action on the deeper parts of the wound, it will prevent a hollow from being formed, and thus hinder the possibility of an accumulation. Now, suppose the wound to be dressed on the principles I have recommended, and no more blood to be escaping from the vessels, what follows? The arteries may be impervious to blood, but they are not so to the coagulating lymph, which now constitutes the first bond of union between the surfaces of the wound. This lymph is the earliest medium of their agglutination, and may be said to have the same useful effect on the internal deeper parts of the wound, that the sticking-plasters have on the outer part of it—namely, it glues them togeher. The coagulating lymph afterwards

becomes vascular, and other changes follow, which will be explained in the next lecture.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE XV.

Pathology of Phthisis—Formation of Tubercles.

Gentlemen,—Phthisis is a disease of the highest importance, and calculated to excite a very deep interest, whether we view it in relation to the insidious nature of its origin and progress, the selection of its victims, or the number and frequency of its attacks. From calculations founded on the tables of mortality and other data, it has been computed that sixty thousand persons die annually of consumption in Great Britain; but as this computation has not been made with reference to the great increase of population within the last few years, it is probable that the average amount of deaths from tubercular phthisis may, without exaggeration, be eighty or ninety thousand in the year. Phthisis is a disease which, more than any other, demands the sympathy and excites the commiseration of the friends and acquaintances of the sufferers. Some diseases are borne in silence and concealment, because their phenomena are calculated to excite disgust; to others, the result of vicious courses, the stigma of disgrace is attached; unsightly ravages of the human frame, or the wreck of the mental faculties, inspire us with horror rather than with sympathy; but consumption, neither effacing the lines of personal beauty, nor damaging the intellectual functions, tends to exalt the moral habits, and develop the amiable qualities of the patient, and, from its melancholy character, gives to our feelings of commiseration a more than ordinary intensity. Most persons die of consumption in the bloom of youth, at a period when hopes are brightest, and the capacities for enjoying life are in full vigour and maturity; most of its victims are remarkable for the early unfolding and brilliancy of their mental accomplishments; and many a family has to regret, that, by tubercular phthisis, some of the fairest and best of its members have been hurried to an early grave.

I am not, gentlemen, going to treat of the subject of consumption in detail; I do not intend to enter into a description of its symptoms from their origin to their termination, to exhibit its various phases, or to enumerate the stethoscopic phenomena observed during its progress. To do this would require a very long time, and many lectures; my purpose is merely to give a general *coup-d'œil* of its pathology and treatment. The occurrence and development of tubercles in phthisis, constituting the most remarkable phenomena of the disease, have engrossed, almost exclusively, the attention of medical men, and consequently they have attached an undue degree of importance to them as the cause of phthisis. Here I beg leave to state, that I do not intend to enter into a description of the different forms of tubercle, whether they occur as separate and distinct productions, or in the shape of tubercular infiltration; this has been treated at large by Laennec, Andral, and various other writers; but will only remark, that, with regard to tubercles, I am inclined to limit their influence in producing consumption. I grant that tubercles, in either state, occurring in very great numbers, or very rapidly developed, will occasion very serious inconvenience and danger by diminishing the power and extent of the respiratory apparatus. If, instead of a pervious lung, you have one-half of this organ obstructed in its function by tubercles, the injurious effect on respiration is evident. Cases of this kind are of no uncommon occurrence; I have seen tubercles, to an extraordinary extent, make their appearance in the lung in the space of two or three weeks, and have known persons to die of the suffocation caused by this rapid development without the usual symptoms of phthisis. We had, some time ago, an instance of this, in a young woman, in Sir P. Dun's Hospital, who died, in fact, of what may be termed tubercular asphyxia, arising from the rapid and general formation of those morbid productions. She had scarcely any of the common symptoms by which consumption is characterised; her death was the result not of the suppuration which attends phthisis, but of the suffocation which arose from imperfect respiration; and this is a distinction which I wish to draw strongly and broadly. It is, I believe, a generally received opinion, that tubercles, by producing inflammation and suppuration, are the cause of phthisis. This I doubt, or even deny. I look on tubercular development and consumption as the consequences of that particular state of constitution, which occasions what is falsely termed tubercular inflammation, a state of constitution in which we have three distinct processes, attended by corresponding morbid changes, each different in itself, but depending on one common cause. Every form of consumption, which has hitherto come under our notice, is referable to one common origin, and this is that debilitated state of constitution which has been termed the scrofulous habit. One of the first tendencies of this habit is to the formation of tissues of an inferior degree of animalization, among which I class tubercles, whether occurring in the lungs, brain, or liver, whether they exist in a minute and granular form, or in large, soft, and yellow masses, or in the state of tubercular infiltration. I look on them

as one of the first of those morbid changes depending on a peculiar constitution of body, and most commonly found to accompany it. The weaker the constitution is, the greater tendency is there to generate tissues of a lower degree of vitality, and, on this principle, I think we can explain the occurrence of entozoa and hydatids. There are some cases in which you will never be able to prevent the generation of intestinal worms, until you direct your attention to the source of the evil, which lies in the weakness of the constitution, for, in such a state of the system, all animals are liable to the formation of parasitic productions and tissues imperfectly animalized. I look on tubercles in this light, and not as the consequence of inflammation, nor do I consider that it has been proved, that tubercular development is the cause of phthisis. Many cases come under our observation, in which most of the symptoms of phthisis, and its attendant hectic, are manifest and striking, and, when the injury done to the lung is very great, still no tubercles can be detected. That the mere presence of tubercular matter does not occasion inflammation of any kind, may be inferred not only from the lungs, in which this fact is of every-day occurrence, and a matter of every-day observation, but also from finding them frequently in the spleen, liver, kidney, and muscles, where they must have existed for some time, and yet we cannot perceive any inflammation of the surrounding tissues. On the other hand, as we may have tubercles without any phthisical pneumonia or suppuration of the lung, so we may have also the latter without the former. Thus, in a man of middle age, who died lately in this hospital, the lungs were extensively solidified, black, and ulcerated, containing several sinuous cavities, filled with pus of a scrofulous character, but not a single distinct tubercle. There was not the slightest vestige of the chief kind of tubercle—the yellow one, nor could we find any of the small miliary transparent kind; the whole mass was solid, except where it was suppurating, evidently the result of phthisical pneumonia of a chronic nature. Occurrences such as this have been frequently observed (and particularly in the phthisis of persons advanced in life) by Professor Alison and others; but the preconceived opinion, that the solidification of the lung was the consequence of tubercular disposition, made them overlook its real nature. The most important thing for the student to impress on his mind, with regard to all cases of phthisis, is, that the pectoral symptoms, of whatsoever nature they may be, are caused by scrofulous inflammation. If you trace the phenomena of external scrofulous abscesses, you will be struck with the close analogy they bear in their manner of appearance, their progress, and terminations, to the ulcerations of the lungs in phthisis. The same slowness, the same insidious latency, the same gradual solidification and gradual softening, the similarity of the puriform fluid secreted in each, the analogous occurrence of burrowing ulcers and fistulous openings, the close approximation in the form of their parietes, and the difficulty in healing remarked in both, make the resemblance between them extremely striking. Compare scrofulous inflammation of the hip or knee-joint with phthisical suppuration of the lungs:—have we not the same kind of hectic fever, the same flushings and sweats, the same state of urine, the same diarrhœa, the same state of appetite, and the same emaciation?

I mentioned before, that one of the first morbid changes we generally see arising from the scrofulous habit is the formation of tubercular matter. I have also alluded to another of those morbid changes, namely, the production of scrofulous pneumonia, in which we cannot detect the existence of a single tubercle. There is another process in which the scrofulous inflammation is seated in the bronchial mucous membrane. This latter form of phthisis is sometimes associated with phthisical pneumonia: but it often exists without it. Although, in this disease, the inflammation is seated in the bronchial mucous membrane, it differs very much from common bronchitis: its symptoms are different; it does not run the same course; and it is unlike common bronchitis in its mode of termination and cure. It presents all the material phenomena of phthisis—the same fever and emaciation,—frequently the same incurability; the same means tend to its aggravation or benefit, and the same scrofulous pus is secreted. It has been urged, in opposition to the last analogy, that the matter expectorated is not the same, because it is not found mixed with broken tubercles, as in cases of true phthisis; but this is an accidental and not a real difference, and does not disprove their identity. We have instances of this species of inflammation affecting other mucous tissues; as, for instance, the scrofulous inflammations of the eyelids and conjunctiva, which we see sometimes going on for months, or even years, secreting a scrofulous pus, and requiring constitutional as well as local remedies for its cure.

In like manner, we have frequent occasion to observe scrofulous sore throat, and scrofulous inflammation of the mucous membrane of the bowels. The latter is very common in children, and manifests its tendency to hectic in what is termed the remittent fever of children. Its true scrofulous nature has been scarcely perceived by practitioners; and yet its treatment and cure contain manifest proofs of its origin, independently of the subsequent disease of the mesenteric glands, observed in all fatal cases, and by all acknowledged to be scrofulous. It is scrofulous inflammation of the mucous membrane of the bowels which causes tabes mesenterica, which occasions the swelling and puriform contents of the mesenteric glands, in such cases. The disease of the glands has been falsely regarded as the cause of the chief symptoms: where it occurs,

it aggravates and adds to them; but it is itself occasioned by irritation of the lymphatics distributed to the surface of the diseased bowel, on the same principle that a bubo, or a chain of diseased glands in the groin, may be occasioned by inflammation on the surface of the penis or lower extremities; in the axilla, by sores on the hand, arm, or chest; and in the neck, by cutaneous eruptions on the face or scalp, or by inflammation of the mucous membrane of the throat. In all such cases, if the original source of irritation at the extremities of the lymphatics leading to the gland be scrofulous, these glands will undergo precisely the same changes which we observe in the mesenteric glands in tabes mesenterica.

These analogies being considered, you will, gentlemen, be more disposed to agree with me, in thinking that many of those cases of chronic bronchitis which induce a fatal hectic fever, and are accompanied by a copious purulent expectoration, are truly of a scrofulous nature, and consequently not so distinct from tubercular phthisis as is generally believed. This view of the subject leads to most important practical results; for the practitioner who is aware of the true scrofulous nature of the pneumonia which occurs in phthisis, whether with or without tubercles, and who does not regard either the inflammation of the lung, or of the bronchial tubes which accompany tubercles, as genuine simple inflammations caused by the presence and irritation of tubercles, acting as foreign bodies, such a practitioner, I say, aware of the scrofulous nature of these affections, will pursue a line of practice very different from that too generally adopted, on the supposition that they are true inflammatory affections.

You will remember, then, that we have three distinct forms of disease in the lungs, all arising from scrofula, namely, scrofulous pneumonia, scrofulous bronchitis, and tubercular development. We may, therefore, have tubercles without either the pneumonia or the bronchitis; and we may have scrofulous pneumonia often ending in slow burrowing suppuration, and proving fatal without any tubercles being formed. In like manner, a person may die of scrofulous bronchitis without the occurrence of either tubercles or pneumonia. Of these three effects of scrofula it may be remarked, that, owing to their cause and origin being the same, they are most frequently found in combination. The same diathesis which produces one may give rise to the others; hence the frequency of their association; hence it is that they generally occur together.

I have stated, that I doubted, or even denied, that tubercles were the cause of suppuration in the lung;—you will ask me for proofs. In the first place, how many lungs will you find, on dissection, filled with tubercles, and yet there is no inflammation? Out of one hundred cases of tuberculated lung, dissected by Laennec, you will remark that nearly eighty were found to be in the latent stage, and yet there was no vestige of inflammation. Now, how could this happen if tubercles acted like foreign bodies, as they are considered to do by many writers? If a grain of sand happens to get into the eye, it will excite inflammation. If tubercles were capable of producing inflammation, we should discover some traces of it in every lung where they are found to exist, and yet you will meet many cases in which you cannot detect the slightest trace of it down to the very edge of the tubercular mass. I instanced before the occurrence of tubercles in the liver, spleen, kidney, and muscles, without any accompanying or surrounding inflammation. Indeed, I am adverse to allow that any animal product gives rise to inflammation. I do not speak here of unorganized calculi. I do not include those animal productions which are transferred to a part different from that in which they originated, as the matter of an hepatic abscess into the cavity of the peritoneum; these are occurrences for which nature is not prepared. But no animal matter produces inflammation of the part in which it is deposited; nor can I call to mind a single instance of such an effect. Extravasation of blood in the brain or lungs, or into the cellular tissue, does not give rise to inflammation, neither does effusion of lymph into serous cavities. I look on tubercles in the same point of view, and consider them as productions incapable of developing the phenomena of inflammation. The inflammation and suppuration of the lung, to which the name of phthisis is applied, is dependent on a scrofulous habit, and this leads us to inquire what is it that gives rise to the scrofulous diathesis. In many cases it is hereditary; persons may be born with it; and tubercles are frequently detected in the lungs of the fœtus. We may therefore say, that under some circumstances it is an hereditary disease. But it is not merely hereditary and existing in the fœtus in utero, but may be developed at any period of life. It is of great use to study and investigate the causes which produce this disease in the lungs of persons who have lived for years without any manifestation of tubercles, as it furnishes us with a key to understand why persons who have not originally either tubercles or scrofulous bronchitis may sometimes die of phthisis. It is too much the fashion to say that phthisis is an hereditary disease, and it is often useless and erroneous to lay too much stress on this opinion and on the result of an inquiry into the habits of the parents and relations of a patient who is supposed to labour under consumption. That the predisposition may be generated in utero, I grant, is often the case, and, cæteris paribus, a person with such a predisposition is much worse off; but I believe that it often happens that a man will get consumption from confiding too much in the purity of his blood, and I have known some cases of neglected cough terminate in debility

and consumption, because the patient was not apprehensive of any danger, from the circumstance that none of his ancestors ever had the slightest taint of phthisis. There are several facts in proof of this. If a tiger from the wilds of Africa, who can boast of a line of ancestors as free from phthisis as any of us, be brought into this country, and debilitated by confinement, impure air, and a climate to which he is unaccustomed, you will frequently find that he will die phthisical. Negroes, none of whose progenitors laboured under any form of phthisis, will get consumption in Great Britain. The same occurrence takes place with respect to monkeys and other animals, who are naturally inhabitants of a climate having a striking difference in temperature from that into which they are imported. You recollect the dromedary carried about for exhibition, which died in this city, and was dissected at the College of Surgeons; this animal died of consumption. The white bear of the north of Europe, and the Esquimaux dogs, brought into this country, die of liver disease, though, I dare say, there is no instance of hepatitis among those who dwell in their native wilds. Here we have instances of disease not at all hereditary, acquired from the action of the same cause that favoured its development when hereditary, and tending to justify the opinion that phthisis may, under certain circumstances, occur in a habit in which the slightest predisposition to this disease does not exist.

You will expect me, perhaps, to enter into a disquisition on the origin of tubercles; this, for obvious reasons, I must refuse. Much labour has, I think, been fruitlessly expended in attempting to systematize this subject. The consideration of tubercles has been lately treated, with his usual ability, by my excellent friend, Dr. Rogers, in the Edinburgh Medical and Surgical Jounal, and from his paper you will derive a great deal of useful information. I am persuaded that there is much of error and misconception in the manner in which many persons consider the nature of tubercular formation. I am convinced that many of the propositions laid down as tenable and well-grounded may be subjected to revision, or even doubted and denied. It is supposed, for instance, that the yellow solid tubercle, one of the best defined of those which are found in the lung, commences in one form and terminates in another; that in the beginning it is small, solid, and transparent; that as it grows larger it becomes more and more opaque, and afterwards, under the inflammatory process, becomes softened in the centre and suppurates, the suppuration extending towards the circumference. This I am inclined to doubt. When you find, on dissecting a scrofulous lung, tubercles with fluid matter in their centres, I can scarcely think you are authorized in saying they have been at any period of their existence completely solid. Twelve years ago, while perusing Laennec's descriptions of tubercular formation, I wrote on the margin of the copy I was reading, "Might not tubercles have been originally fluid, and might not the change they undergo be from a soft into a consolidated mass?" I have seen this passage of fluid scrofulous pus into solid tubercular matter beautifully exemplified in a case of psoas abscess; the neighbouring lymphatics were loaded with this pus; in the lymphatic glands to which it was next carried it was much thicker; in those at a greater distance it was of the consistence of curd, and when its fluid particles had been still more completely absorbed in more distant glands, it was found to be as solid as any yellow tubercle. May it not happen, that many of those yellow tubercles (and this is the opinion of Cruveilhier, and others who have written on this subject since Laennec) at their commencement consist wholly of depositions of scrofulous pus in the tissue of the lungs. One of the supposed tendencies of the scrofulous diathesis is to modify nutrition in such a manner that, instead of the ordinary depositions, a secretion of scrofulous pus takes place in circumscribed spots. It has been universally acknowledged, that we may have depôts of pus without inflammation. Now, if those depôts be excessively numerous and very minute, and if they continue for any length of time, they will be exposed to the action of the surrounding absorbents; and as absorption will go on with greater activity at the circumference than at the centre, it is obvious that the solidification of the circumferential parts will precede that of the central, and they will present the appearance of tubercles softened in the centre. These facts I bring forward, not for the purpose of laying down any fixed theory concerning the growth and origin of tubercles; not for the purpose of asserting that the generally received opinion is wrong; but to show you that it has been too hastily adopted, to the exclusion of other explanations drawn from causes probably not less operative in giving rise to these morbid productions. With regard to the more minute forms of tubercular matter, as the granular and transparent tubercle, and the tubercular infiltration: these I look upon as the effects of vitiated nutrition, a species of parasitic growths of a lower degree of organization, having their origin in an hereditary tendency, or in a debilitated state of constitution. These may, and frequently do occur along with the yellow purulent tubercles, and they may have purulent points deposited in their centres, or at the circumference; but it may be doubted whether there is a true conversion or growth of one into the other, or, speaking more precisely, whether grayness, transparency, and minuteness of size in tubercles, necessarily precede opacity, yellowness, and considerable bulk. The nearest resemblance which exists between the two kinds is in the case of tubercular infiltration, the gray species being imitated in its mode of diffusion by the purulent infiltration of the yellow kind.

The next subject for consideration is the examination of those causes which, acting on the constitution generally, or, locally on the lung, give rise to the development of tubercles, scrofulous pneumonia, or scrofulous inflammation of the mucous membrane of the bronchial tubes. A great deal has been said concerning the badness of our climate, but it is necessary to know the comparative frequency of consumption in Great Britain in order to ascertain the influence its climate may exercise in producing this disease as compared with that of other climates. If you examine the records of the German, French, Italian, and other continental hospitals, you will find that the occurrence of phthisical cases is not less frequent in those institutions than in the infirmaries of Great Britain. I do not mean to say that in those countries so many persons die in proportion to the extent of the country as in Great Britain, or that so much of the population, taking town and country into consideration, are cut off by phthisis as in Great Britain; but of the town population, where the numbers are equal in both, I believe the proportion of victims is nearly the same. The prevalence of phthisis is found statistically to depend on confinement, poverty, and vice; and as these are most abundant in the condensed population of towns, we can perceive why consumption is so frequent in this kingdom. In consequence of the great manufacturing prosperity of England, no nation in Europe possesses so many considerable towns in proportion to its entire population or extent. Now, when we compare the frequency of consumption in persons residing in large towns, and in those who live in the country, the difference is very great indeed. This is not strange, nor unaccountable. Compare the peasants of any, even those shires which are believed to have the worst climates, in England, or even Scotland, and you will be at once struck with the contrast between them and the sallow artizans of large towns, who are crowded together in manufactories where ventilation is imperfect; where they are obliged to work in confined postures for many hours together, and the time devoted to amusement and healthful exercise is scanty and insufficient. It is scarcely credible, the length of time even very young persons are made to work. From investigations made by a parliamentary committee during the last year, it appears that in some towns of England and Scotland every principle of humanity has been violated. Children of six years of age have been crowded together in hundreds, in badly ventilated apartments, and obliged to work for seventeen hours in the day; and when these ill-fed and sickly creatures dropped asleep over their work, as they frequently did, from fatigue, exhaustion, and the curtailment of their natural rest, they were kept awake by strapping them with a leather thong over the back. And can we be surprised that this should make them, as they are, spiritless, and pale, and emaciated; and that they should sink rapidly into that state which tends to scrofulous development? Is it wonderful that in such creatures evey disease of debility should manifest itself in tenfold vigour; that we should have phthisis in the lungs, and tabes mesenterica in the abdomen, and chronic hydrocephalus in the brain? What applies to those of tender age is applicable also to the adult: the same mode of life is equally destructive to both; nay, it even fixes its stamp on the race, and you can recognize at once the pale unhealthy hue, and the stunted growth, of those whose progenitors have been manufacturers and artizans for generations. If the population of these countries lived in one great London, or one great Manchester, deprived of the benefit of pure air and wholesome exercise, I verily believe that they would all become scrofulous—that nine-tenths of them would get phthisis, and that scrofula, in its various shapes, would sweep them off in the course of a few centuries. Cholera or plague would be preferable to this. But no manufacturing town supplies exclusively its own population; it generally draws from the country to support the losses it sustains by the natural decay and exclusive mortality of its members. It is the habits and circumstances of those persons who live in towns that produce the frequency of phthisis in Great Britain, for its climate is not more unhealthy than others. I mention this particularly, because a very prejudicial preventive method has been founded on the supposed inflammatory origin of phthisis. Confinement, heat regulated by the thermometer, flannel, low diet, and venesection, have been recommended as the best mode of managing phthisis. Now, if we complete the above catalogue by the liability to cold which it brings on, the mental anxiety, and other circumstances, we have what in due time would make many persons phthisical. It is of great importance to know how to make a man phthisical, as, by pursuing an opposite line of conduct, we will be able to prevent it.

Gentlemen, I shall resume this subject on Saturday next.

LECTURE

ON THE USE OF IODINE IN THE CURE OF DISEASES.

DELIVERED BY DR. RYAN,

BEFORE THE MEDICO-BOTANICAL SOCIETY OF LONDON.

(Concluded from page 208.*)*

M. Lugol observed, that a slight increase of the quantity of iodine frequently caused intense excitement when applied externally; and this result led him to be most careful in its internal exhibition. It convinced him of the impropriety of administering the tincture or syrup of iodine in an aqueous vehicle, as the whole of the iodine was precipitated in a solid state, in which form, judging from external effects, it would produce intense excitement of the stomach. "It is, I feel con-

vinced," he says, "in consequence of such modes of dispensing it, that accidents have ever occurred, or prejudices arisen against the remedy." He prescribed pure iodine at first, to test its antiscrofulous virtues, but it caused pain in the stomach in several women; and this was removed by the exhibition of two or three ounces of kina (quinine) wine, as first advised by Coindet. In order to prevent the corrosive action of iodine upon the stomach, he deemed it advisable to administer the remedy dissolved in distilled water. It was soon, however, discovered, that the aqueous solution was liable to objections, first, on account of the small quantity of iodine and the large quantity of water necessary to be employed; and, secondly, that in a few days the fluid, when exposed to light, lost its colour, while the greater part of the iodine was converted into hydriodic acid, and the therapeutic effect was much impaired. After various experiments, it was found, that the least objectionable mode of prescribing iodine was by dissolving it in a solution of potass.

As the work of M. Lugol is not in general circulation, I beg leave to enumerate his various preparations, with a condensed account of the author's comments. The following are the solutions now used by our gallic contemporary:—

Ioduretted mineral waters.

	No. 1.	No. 2.	No. 3.
Iodine,	gr. $\frac{3}{4}$,	gr. i,	gr. i$\frac{1}{4}$;
Hydriodate of potass,	gr. i$\frac{1}{2}$,	gr. ij,	gr. ijss;
Distilled water,	℥viij,	℥viij,	℥viij.

These solutions are transparent, of an orange colour, and keep for a considerable time. A small quantity of sugar may be added at the moment of exhibiting any of them, but not before, as in the course of a few hours decomposition readily takes place. These formulæ are given in hospital practice; the dose of No. 1 is two-thirds, containing half a grain of iodine daily, and after a fortnight, the whole of No. 1 is ordered. During the fourth or fifth week, No. 2, containing one grain of the medicine, is prescribed daily, and continued in general to the end of the treatment. It is seldom necessary to order No. 3; and M. Lugol has never exceeded a grain and a half of iodine daily. This is the general dose prescribed by the profession, with the exception of Dr. Elliotson, who has urged hydriodate of potass to the amount of a drachm three times a-day. When I observed this dose published in one of the medical periodicals, I offered some comments upon it, and said that the reporter must have made a mistake. This drew forth a caustic reply from that person, which contained the astounding assertion, that Dr. Elliotson had given it in still larger doses. I denied that the medicine used was genuine; because the quantity exhibited daily was equal to 135 grains of iodine, which would prove fatal to life had the medicine been pure. The validity of this opinion could not be questioned, and it was deemed necessary by the managers of the institution in which it was used, to procure the medicine elsewhere; and since that determination, I have reason to know that the ordinary doses of iodine and hydriodate of potass are seldom exceeded, as will appear by the statement of Dr. Roots, which will be given hereafter. I commented on the excessive doses of the remedy, as the editor of a medical journal, because, coming from such a high authority, it was calculated to influence many practitioners, and in my opinion, grounded on the numerous authorities already cited this evening, calculated to do extensive and irreparable mischief. No blame was to be attached to the learned professor who employed it, because, I believe, he had commenced with ordinary doses, and gradually increased them without effect. But as repeated observation had convinced me of the power of iodine and hydriodate of potass in ordinary doses, I was led to the conclusion, that the report was incorrect, or if true, that the medicine was adulterated. It is a lamentable fact, that on a late occasion specimens of hydriodate of potass were procured from the largest druggists and chemists in London, and that in two instances only was the medicine genuine. The purest specimens were obtained at Allen's, Plough-court, Lombard-street, and at Garden's of Oxford-street. Two-thirds of the article were a foreign inert substance, which decomposed and rendered useless the remaining third of the medicine. I have ascertained this fact from two of the most scientific analytical chemists in this metropolis, neither of whom is concerned in the sale of medicines. But to revert to M. Lugol's formulæ, I have to inform the society that in private practice, he uses the following mixture:—

Concentrated solution of iodine.

Iodine ℈j;
Hydriodate of potass ℈ij;
Distilled water ℥vij.

The dose is six drops in the morning before breakfast, and in the afternoon, an hour before dinner, in half a glass of water sweetened with sugar. Every week, the dose should be increased two drops, and continued until it amounts to thirty-six drops a day. The dose for children under seven years of age, is two drops twice daily, gradually increased to five drops, and from the age of seven to fourteen years, between five and sixteen drops daily.

This solution, though more convenient, is not so precise as the first, which is decidedly preferable, on account of its exactitude and greater safety. In my own private practice, I order the eight ounce solution of M. Lugol to be divided into four draughts, one to be taken three times a day, and when about to be used advise a small quantity of sugar to be added. If iodine be given in a full dose, it rapidly passes through the stomach, acts as a powerful diuretic, sometimes causes salivation, especially in males, and in some persons colic. When

constipation succeeds, the exhibition of mild cathartics is necessary. M. Lugol is convinced of its tonic power, which he repeatedly remarked in his hospital: the appetite became so much increased, that the quantity of food allowed by the institution was scarcely, and often by no means sufficient. It is a powerful diuretic, and was often detected in the urine almost immediately after the dose was taken.

It acted as a purgative on one-third of the patients; and when there were frequent alvine dejections, there was often colic accompanying them. I can bear ample testimony as to its power as an emmenagogue.

M. Lugol denies, in the strongest terms, that iodine produces emaciation; but, on the contrary, avers, that it encourages the growth and increase of size. He states, 1st, that thin females have acquired a state of *embonpoint;* 2d, that corpulent women have not become emaciated; 3d, that those, not belonging to either of the preceding classes, have not diminished, but have acquired an increase of strength and improved health. He declares, that it does not excite pulmonary tubercles, hæmoptysis, or the other accidents apprehended by some practitioners.

The external effects of iodine are intense local action, often a prolonged sensation of prickling and smarting, sometimes itching, and sometimes inflammation of the skin. When the skin is rubbed with the medicine, it becomes of a reddish yellow colour, from the absorption of the remedy and the injection of the capillaries. The cuticle desquamates in patches, so that the ointment comes in actual contact with the true skin.

We are informed, that iodine changes the aspect of scrofulous ulcers as rapidly as mercury modifies that of syphilitic sores. It often produces its action on tumours without destroying the cuticle. The formulæ for external use are as follow:—

Ioduretted ointment.

Iodine gr. xij;
Hydriodate of potass ℈iv;
Lard ʒij.

This is used in scrofulous ophthalmia, ulcers, fistulæ, tubercles, &c.;—the most formidable examples of which are minutely detailed in Lugol's work, and in the translation of it by Dr. O'Shaughnessy, which deserves a place in every medical library in the kingdom.

Ointment of proto-ioduret of mercury.

Proto-ioduret of mercury ℈ij—℈iij.—℈iv;
Lard ʒij—ʒij—ʒij.

These ointments, when properly prepared, are of a canary colour, sometimes green when the protoxide of the metal is formed, and finally of an orange colour, when the combination of the deuto-ioduret takes place. In the last case, the ointment is as escharotic as the deutochloruret of mercury, or corrosive sublimate, and must be avoided. The syphilitic aspect of esthiomenic or corroding scrofula led our author to employ this ointment; and the good effects it produced suggested to him the propriety of applying it in all cases of external scrofula. Strumous sores often imitate syphilitic ulcers, and persons tainted with the latter disease frequently engender scrofulous children. These ointments cause little pain in general.

Solutions of iodine for external use.

Iodine gr. ij—iij—iv;
Hydriodate of potass gr. iv—vi—viii;
Distilled water Oj—Oj—Oj.

These solutions are injected into the lachrymal passages, between the eyelids, into fistulæ, in coryza, and ozena; care being taken in the last diseases not to direct too much of the solution towards the fauces. An ivory syringe should be preferred to metallic ones, as these are acted on by iodine.

Rubefacient solution of iodine.

Iodine ʒiv;
Hydriodate of potass ʒj;
Distilled water ʒvj.

This solution is applied, by means of lint, to surfaces which require strong excitement, chronic ophthalmia, coryza, and ozena: it is added to baths and poultices.

Ioduretted baths.

The last solution is added to warm water, the quantity being determined by the sensations of the patient. The bath should be prepared in a *wooden* box, or otherwise the medicine will be decomposed; and it may be applied to the hands, chin, feet, &c.

Ioduretted cataplasms

Are prepared from ordinary materials, together with the rubefacient solution, and are applied to hard tubercular tumours and cold abscesses, which have resisted other modes of treatment.

Caustic Iodine.

Iodine ʒj;
Hydriodate of potass ʒj;
Distilled water ʒij.

This formula is useful when the solution and ointment have failed. It is applied twice a week to the eyelids, nasal fossæ, to repress excessive granulations. It improves the appearance of soft and fungous tissues with a celerity that surpasses imagination.

Eye-lotion of iodine.

Tincture of iodine ♏ xxx;
——— of opium ♏ xxvj;
Distilled water ʒiv.

This lotion is used in obstinate scrofulous ophthalmia.

Plaster of iodine.

Lytharge plaster ℈ij;
Iodine in powder ʒss;
Hydriod. of potass ℈ij;
Extract of opium ʒss.

This is applied to the parotid and other glands when enlarged.

Ointment of iodine and opium.

Iodine gr. xv;
Hydriodate of potass ℥j;
Tincture of opium ℥ij;
Lard ℥ij.

This ointment is applied to painful scrofulous ulcers.

Such are the preparations of iodine, recommended by M. Lugol and the Academy of Sciences in Paris, and now generally employed by the profession in this country. They were repeatedly tried in every form of scrofula, however extensive and formidable, with the happiest results. The author has narrated a vast number of cases, for which I must refer to his work, or the valuable translation, already recommended; and some of these were under treatment for several weeks, others for twelve months. The cures are astonishing, and highly gratifying to the profession. Convinced of the efficacy of iodine, I have tried it in a great many cases myself. With your permission, I shall briefly refer to a few, which were observed by gentlemen who have done me the honour of attending here this evening.

I was requested to visit a lady, by my friend Mr. Matthews, of Hunter-street, Brunswick-square, who laboured under scirrhus uteri. There were several everted scirrhosities about the os uteri, which were highly painful on pressure. There was a sanguineo-purulent discharge, extremely fœtid; the countenance was of a leaden hue. The patient was between thirty-five and forty, and had children. The prognosis was of course unfavourable. I advised iodine internally, and locally by injection, three times a-day, by means of a bladder and pipe, for a metallic syringe or Indian rubber bottle is objectionable. The amendment was astonishing; the disease was removed in four months, pregnancy occurred, and the patient is now a nurse.

I have attended a similar case during the last year with Mr. Austin, of Red Lion street, Clerkenwell. The lady was confined to bed for several weeks, and her life despaired of by her friends. The same treatment restored her to her family.

In two cases of supposed cancer of the breast, for which I was consulted, I advised the operation to be deferred until after the trial of iodine, and had the gratification to observe that the disease was removed. In both there was lancinating pain and stony hardness; but I am aware that these are not now considered certain signs of carcinoma.

In three cases of well-marked disease of the ovary, relief and restoration to health was effected by iodine. In a case of dropsy of the ovary, which caused such distention of the abdomen, as in the last month of utero-gestation, the internal and external use of iodine effected a cure. I published this case in the Medical and Surgical Journal, No. 48.

The iodurettted ointment was effectual in removing disease in the left lobe of the liver, in the case of a lady who was attended by Mr. Walker, of Charlotte-street, Bloomsbury, and myself. I have tried iodurettted mineral water in numerous instances of enlargement of the mesenteric glands, and the iodurettted ointment externally with astonishing success, and also in several cases of rickets. A nutritious diet was ordered in both diseases. In a case of chronic thickening of the integuments of the wrist, consequent to dislocation, it effected a cure. Mr. Appleton, of Holborn, attended this case also. Chronic thickening, and induration of the back of the hand and instep, in a scrofulous subject tainted with syphilis, was rapidly removed by the use of the iodurettted ointment with morphia. The pain was so great as to prevent sleep for several nights, and, on this account, four grains of the latter were added to an ounce of the former.

Cases of ovarian disease, which I attended with Mr. Hughes, of Holborn, and Mr. Kenny, of the Strand, the most decided improvement, perhaps I might say, a cure, was effected, as neither patient has complained of the symptoms for some months. Several cases of glandular enlargement in the neck, axillæ, and groins, were speedily removed by this remedy. Ten cases of bronchocele yielded to it in a few weeks.

Strumous ophthalmia of the eyelids was completely removed by it.

Scrofulous ulcers in the neck and groins were rapidly improved by it in several cases.

I have tried the remedy in stricture of the urethra without effect; but this, I believe, arose from the decomposition of the ointment when smeared on an elastic or metallic bougie. I have no doubt of its efficacy if it could be properly employed. Stricture of the rectum was decidedly improved by it; but here it was easily applied.

Enlargement of the testis, after chronic inflammation, was soon removed by this remedy.

White swelling of the knee-joint was greatly diminished by the iodurettted ointment with morphia. There is a gentleman present who has seen the best results from iodine in chronic hydrocephalus, in a case which lately fell under my care; and it is worthy of recollection, that Dr. Elliotson has recently applied it in epilepsy. This gentleman, and Dr. Graves, of Dublin, have removed several cases of enlargement of the liver with the hydriodate of potass. Dr. Montgomery employed it successfully in disorganizations of the uterus and ovaries (Dublin Medical Transactions, 1830). Dr. M'Dowel, of Dublin, in enlargement of the spleen (Lond. Med. and Surg. Journal, monthly series, vol. vi. 1831); Dr. A. T. Thomson employed it in scirrhus testis and ovarian disease with success; Dr. Thetford, of Dublin, in enlargement of the uterus (Dub. Med. Trans., 1829); and M. Ricard in hydrocele.

Such is a small part of the evidence in favour of iodine and its preparations, not only in the cure of scrofula, but in a variety of other morbid growths, which, previous to its discovery, were mostly incurable, unless by painful operations. It is, in my opinion, unquestionably one of the most powerful remedies ever discovered; and the opposition to its employment by the few, who have had the least experience of its value, cannot prevail, for a moment, against the mass of evidence I have adduced. Those who recommend it are well aware of its failure in some cases, but they are convinced of its value and safety, when genuine and judiciously administered. But, as iodine has sometimes caused considerable irritation, inflammation, and suppuration, it was considered a great desideratum to combine it in such a manner as to obviate these effects. This was most fortunately achieved by two Parisian physicians, MM. Cottereau and Verdet de Lisle, who, having accidentally prescribed a soap, containing the ioduret of lead, for the removal of a tumour, were astonished at the rapidity of the cure. They commenced the most extensive investigation of the therapeutic properties of this new compound, and concluded, "We have ascertained, in an incontrovertible manner, that of all the preparations of iodine, this is the most efficacious, and promises the most prompt and constant action. It is, moreover, free from the inconvenience of exciting cutaneous inflammation, which the simple iodine and hydriodates occasion. The proofs of this we shall afford by publishing the cases we have collected as well in Paris as in the departments—cases, the majority of which had previously been ineffectually submitted to the action of iodine in other forms." Gazette des Hôpitaux, Juin 30, 1831. This remedy was subsequently tried on a large scale at the Hôpital des Enfans, by M. Guersent, and at La Pitié, by M. Velpeau. It has been lately tried with success in this metropolis by Dr. Roots, as appears by his clinical lectures in the Medical and Surgical Journal. The dose of the ioduret of lead is from a quarter of a grain to ten grains daily; and the ointment is composed of one drachm to an ounce of lard. This medicine is prepared by adding a solution of 100 parts of the hydriodate of potass to a solution of 75 parts of acetate of lead: 100 parts of this compound consists of 54.9 of iodine, and 45.1 of lead. (M. Henry, fils, Journ. de Pharmacie, Mai, 1831.) It was discovered by M. Polydore Boullay, in 1827; and brought under the notice of the profession in Paris by M. Caventon. Dr. Roots has employed the solution of hydriodate of potass (composed of 56 grains of hydriodate, equal to 42 of iodine, to ℥i. of water) in mesenteric disease, and enlargement of the cervical glands, and the ointment of the ioduret of lead, with the happiest effects. (London Med. and Surg. Journal, No. 57, March 2, 1833, v. iii. The last preparation of iodine to be noticed is the proto-ioduret of mercury.

M. Lugol exhibits the proto-ioduret of mercury in syphilitic ulcers in scrofulous subjects. The dose is two grains daily; the ointment has been already described. This medicine is prepared as follows, according to Dr. O'Shaughnessy:—

"Dissolve, without applying heat, a sufficient quantity of pure mercury in one part of nitric acid diluted with three parts of distilled water, and add mercury until no more be dissolved. A proto-nitrate of mercury is thus formed, which frequently shoots into a mass of white crystals. Any excess of metallic mercury is to be separated by inclining the vessel and allowing it to run off, the solution containing the crystals is then to be diluted with distilled water until they are perfectly dissolved; a pure proto-nitrate of mercury is thus obtained, the formation of the per-nitrate being only occasioned by the application of heat and the use of too concentrated nitric acid.

"Hydriodate of potass is to be added to this solution as long as any precipitate occurs. Filtration is then to be performed, the matter remaining on the filter to be well washed with distilled water, and dried in a water bath. As thus prepared, the proto-ioduret of mercury is a fine yellow powder, quite insoluble in water at any temperature."

A new compound of iodine has been recently discovered by Mr. Kane, professor of chemistry at the Apothecaries' Hall, Dublin. This is the combination of the iodides with oxide of antimony and platinum.—Dublin Journal of Medical and Chemical Science, January, 1833. The first of these preparations will most probably be used hereafter in the practice of medicine *.

Permit me to observe in conclusion, that in the preceding observations I have attempted to give an epitome of the medicinal history of iodine, and collected facts from a variety of sources. I have given faithful analyses of the best essays and works on the subject; and am inclined to hope the evidence adduced in favour of this remedy is sufficient to convince every candid practitioner of its great value and importance as a safe therapeutic agent. I by no means wish you to suppose that I have cited all writers on the subject; but, though my account is imperfect, I believe it will be found the most extensive as yet offered to the profession in this country. It is, I trust, in accordance with the Baconian philosophy; but you are the best judges of this point. I deemed it my duty to enumerate facts, and to leave you to form your own inductions. This plan was necessary, as one or two eminent members of our profession seem even yet extremely sceptical as to the value of this remedy. An immense majority of the faculty, however, in all countries, are convinced of its efficacy; and I leave the members of this society to form their own conclusions.

* There are as many as thirty formulæ of iodine in the Pharmacopœia Universalis of Jourdan, which is now translated by Professor Rennie, of King's College.

HISTORY AND OBJECTS OF MEDICAL REFORM.

ARTICLE III.

In prosecuting our inquiries upon this interesting topic, we have arrived at the second query, which our readers will find to have been thus propounded—Has *medical reform* been attempted? in what way? and with what success? To this we give a threefold preliminary answer:—it has been attempted—in a variety of ways—and with considerable success,—enough, at all events, to encourage reformers to persevere.

But we must take into consideration, that medical reform has been dealt with in two distinct ways; or rather that it has been divided into two distinct *objects* (according to one of the terms which stand at the head of this article). Some of its advocates have looked to the improvement of the *science*, and, as connected therewith, to the best mode of physicking, or otherwise professionally treating, the public. Others, again, have looked to the rights and privileges, the duties and obligations, of professional men; and (as a branch intimately connected with this) to the welfare of society dependent upon the conduct of their medical advisers. We, for our own part, prefer to take the latter course—at least for the present.

From a *comparatively* early period there has been—to use a vulgar expression—*bad blood* in the profession. For this there never was any real occasion, or merely artificial and misapplied causes. I call upon every man who may have had a medical education to say, whether he ever received from a teacher, of any description, even so little as a hint to fall out with his professional brethren. I am far from wishing to be invidious or censorious—but, *truth is truth.* Look at the profession of the law in all its branches; the adopted business of its members, however honourable or respectable, is contention and opposition. We, on the other hand, are carefully instructed to *co-operate* one with another; and, when not in defiance of moral obligations to society, to screen faults which may not be flagrant.

Nearly the whole of this is chargeable to the interested motives of corporate bodies. The *auri sacra fames* is to blame for the whole. Would to heaven there were no such article in the world as money! For my own part, I possess amazingly little of it; but, as I have gone through a most extensive range of practice without receiving fees, I wish the profession could, by some ingenious device, contrive to make a similar escape. However, as the world is now, ever hath been, and, doubtless, ever shall be, money we must have; but let us get it *honestly*, and not how we can, notwithstanding the sage advice of the old woman to her son.

With reference to what has been said concerning *buffy blood* among us, we desire to add, that litigations are no rarities in the page of medical history. Unfortunate that it should be so!

"'Tis true, 'tis pity; and pity 'tis, 'tis true;"

but there is no getting over *facts*, whatever may be the case as to *theories*. Look at the career of the College of Physicians, almost from the time of King Charles the Second, who was perfectly disposed (in the exuberance of his constitutional good nature) to let the quarrelsome doctors have their own way, provided they gave him no trouble, and physicked the ladies of the court smoothly and quietly*. No doubt he was finely earwigged by some court physician, who tackled majesty at a dreadful advantage whenever the royal stomach happened to be out of order.

If we have not forgotten the *historical* part of this undertaking, it was about the time of the *black-muzzled monarch* that the College of Physicians began to show their *lions*, although their *claws* were not protruded until a later period.

* Aliter tutò citò ac jucundè.

Since then there has been a protracted conflict between the graduates of Oxford and Cambridge, and those of all other universities, about *rank and privileges*, instead of union and fellow-feeling among men of liberal education, wherever received. The notorious by-law, which shuts out foreigners (the *alieni homines*) from the enjoyment of college privileges, has been several times attacked in courts of law by licentiates, but, in every instance, without success. Legal authority having decided in favour of the college, we cannot think of offering any opinion upon the subject. There is, however, a point of easy adjustment in the matter of *medical reform*, which has been already discussed to some purpose*—viz. the refusal of the doctors of Scottish and other universities to apply for a licence to practise upon the humiliating condition of being *re-examined*, with the risk of rejection†, by men not half so able as themselves. No qualified person would object to produce his credentials for the satisfaction of the collegiate authorities, any more than a traveller would, in a foreign country, refuse to exhibit his passport; but this, with the payment of a reasonable, and not an *extortionate* fee, ought to be all that is required. No one wants to destroy or interfere with the dignity and privileges of the College; but we should be glad to see them less greedy, less conceited, and able to grant something in return for money paid them, rather *more* substantial than the pleasure of their acquaintance, and occasional invitations to tea-parties, and Sir Henry's exhibitions of mock-oratory. Fine fun, indeed, it would have been for CICERO to have attended a college lecture. We once saw a gentleman there, of as high renown as *Ap-Shenkin* himself, in the presence of a numerous assembly of the most celebrated *Scavans*, break down (scarlet gown and all) in *a very simple* experiment. His punishment was severe enough, for all who had been admitted to the *shilling gallery* laughed out-right at him.

* Our readers may have it in their power, perhaps, to refer to the numbers of the London Medical Repository, for August, September, and October, 1827, which contain a series of papers, entitled "The State of the Case," &c.

† It cannot be too frequently cast in the teeth of the learned *Fellows*, that they rejected JOHN MASON GOOD and JOHN ARMSTRONG, both now (unhappily for us who remain) gone where their learning, integrity, and industry for the good of their fellow men, will meet with a long, a lasting—even an *ever*lasting—reward. In the opinion of the writer of these articles, letters should be despatched throughout the civilized world, setting forth the simple fact that two or three unlicked cubs from Oxford and Cambridge were insane enough to sit in judgment, and pronounce the severest sentence in their power, upon the first scholar, and the first physician, of the age.

Hospital Report.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

Report for the half year ending January 10, 1833, as just published.

THE number admitted during the last half year amounts to 1021, making a total for the year 1832 of 1705, and from the parishes mentioned at the end of this report. No in-patients were admitted in the months of July, August, and September, whilst the hospital was painting. During October, November, and December, the greatest number of in-patients at one time have been 16, the lowest 5; and few were admitted except for operations, owing to the limited means of the charity. Of these, 31 have been performed for cataract, and all successful in restoring good and useful sight.

Of the 31:—

15 were performed by extraction,
1 by depression,
15 by breaking up.

The most remarkable have been done on Anne Trehorne, Case No. 6, a paralytic woman, aged 82. Frederic Herbert, (Case No. 22,) who was born blind, and remained so until he was 13 years of age; and Cases No. 18 to 21, a family of four children, all born blind or nearly so, and re-

stored to sight by operation—the eldest being nine years of age, the youngest five months.

Cases of Cataract cured by operation.

1. Mary Davies, aged 60, residing at 20, Wardour-street, Soho, admitted with hard lenticular cataract of left eye. The operation for extraction was performed in the usual manner. Discharged cured, restored to sight.

2. Eleanor Watts, aged 55, residing at 8, Robert-street; hard lenticular cataract of left eye, of eighteen months' duration. The operation for extraction was performed on the 3d, and on the 20th October she was discharged restored to sight.

3. Caroline Turner, aged 55, residing at 3, Howton-street; hard lenticular cataract of left eye, of fifteen months' duration. The operation for extraction was performed on the 3d October, and on the 20th was discharged restored to sight.

4. Jane Bates, aged 72, residing at St. John's Workhouse, Westminster, admitted on the 13th October, 1832, with hard lenticular cataracts of both eyes—that in the left of two years' and that in the right of six months' duration. The operation for extraction was performed in both eyes. Her vision is now completely restored

5. William Philpot, aged 68, residing at Chelsea Workhouse, 9th October, 1832; hard lenticular cataracts of both eyes, of four years' duration, was operated on for extraction in both eyes. His vision is restored and very good.

6. Ann Trehorne, aged 82, residing at St. Giles' Workhouse, 21st October, 1832; hard lenticular cataracts of both eyes, of five years' duration. She has lost all her teeth, and her hands and head shake with palsy. Oct. 24th, the operation for extraction was performed on both eyes. Dec. 25th, vision restored in both. She has been kept in the hospital for the last month to get strong and fit for her situation in the workhouse.

7. Ann Pepperall, aged 62, residing at 6, George-street, Westminster, 21st November, 1832; hard lenticular cataract of both eyes; both cataracts were extracted. Discharged. The operation has perfectly succeeded—her sight is quite restored.

8. Martha Wheatley, aged 65, residing at 16, Queen-street, Brompton, 5th December, 1832; hard lenticular cataracts of both eyes; both cataracts were extracted. She went on favourably, and was discharged with vision quite restored.

9. William Harrison, aged 60, residing at 37, Prospect-place, Lambeth, 7th January, 1833; hard lenticular cataracts of both eyes, of two years' duration. The operation for extraction was performed on both eyes, and he is now restored to sight, but is not discharged from the hospital.

10. Mary Parry, aged 20, residing at 39, Pimlico-square, Kensington, 19th December, 1832. Dry, hard, parchment-like cataract. She was operated upon by breaking up the cataract, and restored to sight. Discharged. The pupil is perfectly black; the opacity is removed, although the capsule is occasionally perceptible.

11. Charles Stubbs, aged 23, residing at Mr. Pitts, Brass-founder, French-street, Southampton, 3d October, 1832. Soft lenticular cataract of the left eye, which he was desirous of having removed, on account of his personal appearance. The operation was begun by puncture on the 13th October, and completed by breaking up on the 12th December. He has returned to Southampton restored to sight, and much improved, he thinks, in appearance. The following letter was addressed by him to the surgeon, expressive of his gratitude:—

"*Sunday, 6th January,* 1833.

"Sir,—I think it no more than my duty to write to you, to let you know that the sight of my left eye does not affect my right eye, and is in excellent condition. The eye which you operated upon twice, in that good

and beautiful hospital, Chandos-street, is free from inflammation. Sir, I return you thanks for your goodness and kindness to me while under your care, and likewise all the gentlemen and attendants of that noble hospital, for I was attended to just the same as if I was a gentleman. And I hope, with the blessing of God, that the gentlemen, who are the supporters of that beautiful hospital, will never let it give way for want of support. Excuse me, Sir, if I have done wrong in writing any part of my letter.

"Sir, I remain

"Your most obedient humble servant,

"CHARLES STUBBS,

Brass-founder, Southampton."

12. Mr. D., a gentleman, in straitened circumstances, was admitted 8th October, 1832, with capsular cataract of the right eye. He had been operated upon on the 2d March for capsulo lenticular cataract of this eye. Now the lens is absorbed from the former operation, and the capsule remaining and obstructing vision; it was removed, and he was restored to a fair degree of sight.

13. Henry Barwell, aged 17, residing at Burton-crescent, 24th October, 1832. Capsulo lenticular cataract of the left eye. The operation was commenced by puncturing, and completed on the 28th November by breaking up. He is now quite well, having vision restored, and his personal appearance greatly improved.

14. Ann Greaves, aged 30, residing at Stafford-row, Pimlico, admitted 29th October, 1832, with capsulo lenticular cataract of left eye. The cataract was broken up, and she was finally restored to sight by the removal of a portion of capsule.

15. William Hoole, aged 67, residing at Sheffield, admitted 5th November, 1832.

This case had been operated on last Spring for capsulo lenticular cataract, but a repetition of the operation was now necessary, to cause the removal of a small portion of the capsule which obstructed vision, and he was operated upon accordingly with success.

16. John Williams, aged 47, residing at 2, Tooting-court, Crawford-street, 21st Nov. 1832. Hard lenticular cataract of the right eye, of four years' duration. As he laboured under ectropium, and the lids were not sound, the operation of depression was selected. He remained in the hospital until the 26th, when he was discharged cured.

Remarkable Cases of Hereditary Cataract.

17. John and Mary Griffiths were sent to the Hospital by Lady Frances Wedderburne, with four blind children, Ebenezer, 9 years old; David, 6 years; Jane, 4 years; and Mary, of 5 months. The father had capsular cataract, and is blind from a defect of the nerve of vision, and incurable.

18. Ebenezer Griffiths, has capsular cataract in both eyes, and has only had partial vision from birth; can distinguish bright colours, and avoid objects, but not any thing more.

19. David Griffiths, has capsular cataract, from birth, of the right eye, but not so much affected as Ebenezer. In the left eye there is seen a small piece of hardened capsule, but it does not interfere with vision.

20. Jane Griffiths has capsular cataract of the left eye, which partially obstructs the pupillary aperture.

21. Mary Griffiths—capsulo lenticular cataract of both eyes. Her vision is almost gone in the left, and quite so in the right eye.

Ebenezer Griffiths was operated upon in the right eye on the 7th January, upon which occasion he struggled so violently, that the surgeon considered it more prudent to defer the operation upon the left to some future opportunity. Not having had any bad symptoms, he was, in the course of two or three days, allowed to leave off his bandages. He expressed himself in the most lively terms of joy at any new objects he beheld, and appeared quite bewildered

when he saw what was passing in the street.

A few days afterwards he was operated upon in the left eye: before commencing, Mr. Guthrie asked him if he intended to behave as riotously as upon the previous occasion, to which he answered, "Oh no, sir, I will lie perfectly quiet, for I now know the value of sight too well to behave so badly again;" he kept his promise, and is now rewarded by having excellent vision.

Mary Griffiths was likewise operated upon on the 7th January. When the bandages were removed, in a few days afterwards, she looked in her mother's face, and, smiling, patted it; and, although unable to express herself in words, her infantile gestures fully demonstrated the delight she experienced from the blessing bestowed upon her.

Her eyes differed from those of her brothers and sister, in having a lens in each, whilst, in theirs, the lens had been absorbed, leaving only the capsules.

David and Jane had each one eye operated upon by breaking up the capsule, and they are now all restored to sight.

22. Frederick Herbert, aged 13 (has a brother blind in one eye, from cataract, and another having defective vision), residing at Uxbridge, was sent to the hospital by Mrs. Hodgson, lady of the Dean of Carlisle, on the 1st October, 1832, with congenital cataract of both eyes. He can just distinguish light from darkness. The operation for breaking up the cataract was performed in both eyes. Absorption went on well, a certain degree of sight being recovered, till the 3d November, when the operation for breaking up the portions which remained took place. This last operation completed the object in view, and on the 12th of December his eyes were perfectly clear. Having been born blind, it may be interesting to know how he learnt to see. After the operation he first distinguished the different colours on the counterpane of his bed. He could not judge at all of distances, and did not know the shape of any body without feeling it. Now, Dec 30th, if an object is placed at a short distance from him, and he is told to take it up, he does so readily: but if placed immediately below him, he grasps at it before his hand is within reach of it. On showing him different colours, he is some little time before he names them; those he mistakes are very dark colours for black, and blue for green, and the reverse; but it is seldom that he makes even these mistakes. On being asked why he hesitates in naming a colour when he sees it, he answers that he immediately distinguishes the difference of one from another, but has to think of the proper name for it. He distinguishes the outlines of objects readily, and knows the different persons he has seen about the hospital. On being shown a portrait of Baron Chassé (the first print he had ever seen), he exclaimed, "There is a man's head, and something hanging on the top of his coat," pointing to the epaulettes. He is daily improving, and associating his previous knowledge of objects with the impressions derived from them by his newly acquired sense.

THE

London Medical & Surgical Journal.

Saturday, March 23, 1833.

PROSPECTS OF THE LONDON UNIVERSITY.

We have had great pleasure in perusing the Annual Report of the Council of the London University, as it clearly shows the rapid progress and prosperity of that noble Institution. Notwithstanding the sneers and doubts of some of our contemporaries, the medical school of the University is the largest in the metropolis. It ap-

pears that the number of students in this department is 283, in despite of all the opposition and advantages of the great hospital schools; and there is not the smallest doubt, when the University hospital is erected and in full play, but the number of students will be doubled. This fact is well known to the opponents to the University, and impels them to circulate a report, that the Institution is in debt; that it cannot build a hospital; that it is a complete failure. This is very natural on the part of hospital monopolists, some of whom, in one Institution, extract from the pockets of students the immense sum of £9000 annually for the privilege of seeing the sick, and not of receiving instruction. The new hospital would extinguish this system of extortion; and hence those concerned will decry it in every possible manner.

But we are happy to assure our readers, on authority upon which we can place the fullest confidence, that the University will have a hospital, and that the building will be commenced immediately. The fees paid by pupils will be on the lowest scale, and will be appropriated to the support of the sick. The advantages conferred on students by this plan are too obvious to require elucidation. The exorbitant fee of twenty-five guineas as a surgeon's pupil, and of fifty as a dresser, must be abolished, and *hinc illæ lachrymæ.*

We have repeatedly contended in this journal, that the medical school of the University would not be perfect or efficient until the establishment of a hospital, and we have been gratified to observe the same declaration made by Professor Elliotson, in his introductory address at the commencement of the present session, in October last. There are now sufficient funds in hand to commence the building, and we are certain that when once begun the public will speedily subscribe to it. At present there is a doubt on the subject, in consequence of the false rumours circulated by the hospital monopolists; but their falsehoods will vanish as soon as the foundation of the hospital is laid.

We can also assure our readers that the University will receive a charter, at no distant period; but circumstances are such at present as to prevent its being granted.

It has been vauntingly urged that the Lord Chancellor has deserted the University, because he has not attended the council during the last year; but any reasonable man must admit, that the immense pressure of legal and political duties on that illustrious individual, are a sufficient excuse for his absence. The political career of Lord Brougham has ever evinced his firmness of purpose; and if we take the evidence of the past for the future, we cannot entertain a doubt that he will ever desert an Institution to which he gave birth. We confidently state that he is as friendly as ever to the University; and that circumstances, which he cannot control as yet, prevent him from making the establishment what it ought to be, and what in a very short time it will be.

ST. JOHN'S HOSPITAL, ST. JOHN'S GATE, ST. JOHN'S SQUARE, CLERKENWELL.

SINCE the re-opening of this institution, the number of patients relieved by the revived order of the Knights of Jerusalem, is about 3,500, and without the aid of contributions from the public. No appeal is made, but donations are thankfully received. We notice this institution with the hope that some of our readers may promote its interests.

I.—The Hospital of St. John, which (after a period of nearly 300 years) was revived on the 24th June, 1831, affords advice and medicines, *gratis*, and without letters of recommendation, to all sick poor, either British or foreign, presenting themselves; and such as are unable personally to attend, by obtaining a letter from a patron, donor, or subscriber, will be visited at their own habitations, if the distance does not exceed three miles from the Hospital.

II.—The days of attendance are Mondays and Thursdays in every week, from 11 to 2 o'clock, when medical gentlemen of known experience, and acquainted with foreign languages, are at the Hospital to see the Patients.

III.—This charity is under the direction of the Brother-Hospitallers of St. John of Jerusalem, at whose expense it has been established, and who personally assist the patients in attendance.

IV.—Those Brothers, who compose the Board of Governors, have the management of the affairs of the charity, and render the accounts of the money received from the subscriptions and donations at a general meeting of the patrons, donors, and subscribers, held every year, in the month of June, giving notice of the day a fortnight previously.

V.—Persons subscribing one guinea annually, or making a donation of five guineas at one payment, are entitled to have a patient constantly on the books to be visited and furnished with medicines at his own habitation.

VI.—Those subscribing three guineas per annum, or making a donation of ten guineas at one payment, are entitled to have two patients constantly on the books to be visited, &c. as above.

VII.—Those subscribing five guineas or more annually, or making a donation of twenty guineas at one payment, may have three patients constantly on the books, to be visited, &c. as above, and will also have the title of PATRONS of the Institution.

VIII.—Every Patron, Donor, or Subscriber, will have a receipt from the Treasurer of the sum they have paid, and will be furnished with proper forms of application for the patients to be visited at their own habitations, which they must sign, to prevent improper advantages being taken of the Charity.

IX.—Any Patron, Donor, or Subscriber, on leaving town, may appoint another person to sign his letters of application, upon giving notice thereof in writing, addressed to the Hospitaller of St. John's Hospital, St. John's Gate, Clerkenwell.

Subscriptions and Donations will be thankfully received by the Treasurer, W. B. Angell, Esq. at the Hospital, and the following Bankers:

Messrs. Coutts and Co. 59, Strand; Drummond, 49, Charing Cross; Hammersley's and Co. 69, Pall Mall; Ransom and Co. 1, Pall Mall, East; Sir Claude Scott and Co. 1, Cavendish-square; Willis, Percival, and Co. 76, Lombard-street.

Reports of Societies.

MEDICO-BOTANICAL SOCIETY.

Tuesday, March 12th.

Earl Stanhope, President, in the Chair.—Dr. Cadet was balloted for, and admitted a Fellow of the Society. There were many foreigners present, amongst whom was a gentleman, a distinguished pupil and disciple of Dr. Hahnemann, the founder of the Homoiopathic sect. He entered into conversation on this new system of physic with several medical men who were present, and explained his opinions with great affability and kindness.

Mr. Everitt, the Professor of Chemistry, delivered a very good lecture on the mode of obtaining oxalic acid from the vegetable kingdom, and illustrated his observations by numerous well performed experiments. He pointed out the means of rendering oxalic acid inert upon the stomach, by uniting it with such of the earths as form an insoluble salt, more particularly its combinations with lime and with magnesia. Few individuals have a happier mode of giving clear views of the subjects they discuss than Mr. Everitt, to whom the noble president offered, in the name of the society, its thanks, for his useful lecture.

Dr. Clendinning will, at the next meeting, give a lecture upon oxalic acid, in connexion with those important phenomena which fall under the notice of the toxicologist.

ROYAL INSTITUTION.

Friday, March 15.

Mr. Donaldson, the architect, gave a topographical account of the sewers of London, from the great channels, which "pour their rich tide along," down to the tributary streams, which "keep the noiseless tenor of their way." He expatiated on their utility, their importance, and the results to the health and comfort of the metropolis. He threw out sundry aspersions upon "Father Thames," which he considered little else than a cloaca maxima, receiving on its fond bosom all that was foul and nauseous in this modern Babylon, but showed how much it might be ameliorated, if a plan suggested by Martin could be carried into effect; but from what we heard on this occasion, we fear the project is too magnificent and too expensive to be carried into effect. It however is not unworthy the genius of the great artist, whose painting, Belshazzar's feast, is a monument of the master mind of the suggester.

Whilst writing on this subject, we think it right to direct the attention of our readers to a paper which appeared in the last number of the Repertory of Arts; how it found its way into a journal not at all devoted to any subject connected with medicine we cannot guess. It is a report upon the diseases to which men employed as nightmen and cleansers of the public sewers are liable, from the principal managers of these matters.

WESTMINSTER MEDICAL SOCIETY.

Saturday, March 16.

Mr. Pettigrew in the Chair.—The minutes of the preceding evening having been read by the Secretary, Dr. Gregory rose to make some observations on them, as far as regarded the promise made by Dr. Granville, that he would attend on the present evening to point out parallel passages in the respective works of Dr. Robert Lee and of Professor Lauth on the uterus. He was proceeding with some remarks upon the parallel passages, that had been quoted by the Editor of the Quarterly Review, when, noticing the Catechism of Health, written by Dr. Granville, the President, however, interfered, and observed that, in the absence of both the gentlemen, to whom reference had been made, it would be very improper to proceed in the strain adopted by Dr. Gregory, besides which, he had fully under-

stood, and he believed he would be borne out in that opinion by the president of the former evening, that the subject had been brought to a conclusion on that occasion; Dr. Granville having withdrawn his charge against Dr. Lee of having borrowed his opinions either from himself or from Professor Lauth, and he thought it would be infinitely better, for the preservation of the harmony of the society, that the subject should be dropped.

Dr. Copland stated, that he had, as the chairman on the last Saturday, supposed that all parties had been amply satisfied, and that the discussion of the subject had been terminated.

Dr. Gregory, however, persisted in moving a resolution, that, in the opinion of the society, Dr. Granville had failed to prove his assertion; and, in this, he was supported by Dr. Somerville, who threw considerable blame upon the president of the evening, who had allowed Dr. Granville to proceed in any observations, which might affect the reputation of a scientific man.

Mr. North, Mr. Chinnock, and Dr. Gilchrist, were anxious that the subject should be set at rest, and were satisfied that Dr. Granville had withdrawn his first opinions.

Dr. Sigmond moved a resolution, which was seconded by Dr. James Johnson, that the consideration of Dr. Gregory's proposal be adjourned *sine die*, observing, that the friends of Dr. Robert Lee must be fully satisfied with the explanations that had been offered; upon which, Dr. Gregory observed, that he had not pressed this subject, as a friend of Dr. Lee, but with a view to rescue the character of a man of science from unmerited reproach. Dr. Sigmond replied, that he had not the honour of knowing Dr. Lee, but he ranked himself amongst his friends, as he was of every man of talent and reputation; and that he would not in any way have interfered, but that he felt that Dr. Lee had received ample amends, and that every one who had interested himself on the subject must feel that that gentleman had received not the slightest tarnish on his reputation, but that he had come out of his trial with the most honourable and gratifying proofs of the high opinion in which he was held by every member of the profession, to whom he was either privately or publicly known.

Dr. Copland then commenced some observations, which he had promised to give to the Society, on delirium tremens. He stated the leading features of the disease, pointed out the causes, and briefly alluded to some of the methods employed in the cure. No new facts were brought forward; and most of the opinions that were brought before the Society have been heard there before, the subject having been on more than one occasion discussed; the only feature that was interesting was a remark from Dr. James Johnson, upon the exciting causes; for he stated that he did not think the disease was solely produced by intemperance and the inordinate employment of stimuli, for he had known it to occur in three cases, in young girls, from moral causes, from great mental excitement; in one case in particular, well marked symptoms were produced in a young lady at a boarding school, who had passed her holidays at school, and had undergone a course of study with a view to render her superior to her school-fellows, and from over study this disease was produced.

Dr. Anthony Todd Thompson made some very valuable remarks upon the proper definition of causes; thinking that Dr. Copland did not draw a proper distinction between predisposing and exciting causes; he having called the use of alcohol a predisposing cause, when it should always be fully understood that a predisposing cause could only be strictly applied to a peculiar state of body which might be supposed to exist at the earliest period of life, and which would not be developed unless some exciting cause brought it into action.

PROCEEDINGS OF THE HUNTERIAN SOCIETY OF LONDON DURING THE YEAR 1832.

We have much pleasure in submitting to our readers the following account of various diseases, as discussed at the Hunterian Society, in which will be found a vast deal of curious and instructive information. We give our pages on this occasion for many reasons; 1st, to induce other societies to follow the laudable example set them by a young institution; 2d, to give our country friends a notion of the value of metropolitan observations; and 3d, to place on record the important results of experienced practitioners. We believe the report is drawn up by Mr. Cooke, the learned translator of Morgagni's work on the cause and nature of diseases, and the original and experienced author of the work on the Diseases of the Digestive Organs. We have not the pleasure of his acquaintance, but we shall speak of him in the terms of praise, which are due to a scholar, an experienced surgeon, and an honourable and respected member of our profession.

The following sketch embraces the principal subjects that have come under discussion within the year: of which full details are preserved in the minutes.

I. *Affections of the Brain and Nervous System.* — *Epilepsy:*— Dr. Sharkie's method of treatment, said to consist of an infusion of digitalis in beer, three ounces and a half of the recent leaves, or a drachm and half of the dried, infused for eight hours, and taken for a dose. In most cases, a single dose was reported successful. The trials in England not so successful as had been reported of those in the sister kingdom. Other remedies mentioned as having been successful for a time.

Dr. Parry, it was stated, had reduced the animal powers as low as possible in this disease. He bled and prescribed abstinence to an extreme degree, and by this means kept off the paroxysms; but so much injury was done to the general health that he abandoned the practice.

The efficacy of *nitrate of silver* was considered. In some cases it suspended the paroxysms, but produced blueness, and the paroxysms returned on its discontinuance. It was stated, that blueness had sometimes come on, in this disease, when the nitrate had not been used. In one instance, given to the extent of eight or ten grains per diem, a cure was effected.

When the disease occurs from disturbance in the uterine functions, it ceases on the removal of the cause.

Tetanus:—considered as affording an example of disease commencing in the sentient extremity of a nerve. On the other hand, the sentient extremity, often the seat of pain, when the disease exists at the opposite extremity.

Paralysis: — from application of cold as it occurs in men who work in docks, cellars, &c., as excisemen and wine-porters — creeping up the limbs.

A singular case was related of its occurring in the face, from the stroke of a hot globule of iron from a smith's shop, striking with great force on the portio dura of the seventh pair. The person was stunned, and lost the power of moving the eye, eyelids, and side of the face; but sensation remained perfect. Suppuration took place, and the globule came out of the ear.

Cephalalgia:—agonizing pain suffered by a woman, which, during five years, resisted every plan of treatment. Recently a piece of wire presented in the palate, and when removed, was found to be a stylet, which had been used for fistula lachrymalis fifteen years before, but which had been lost sight of about the time when the severe pain of the head commenced. The pain was chiefly felt at the back of the head. She is now getting better.

Mind:—an instance of the loss of reason from the sudden removal of ascites by constitutional treatment.

Another instance, in which the power of mind in suspending organic disease, was exemplified. A young

woman, being consumptive, became maniacal. During the existence of mania the pulmonary affection did not progress, but, on recovering reason, phthisis advanced, and she died within a few weeks.

Brain :—odour of spirit in :—two cases related. The subject of one of these cases died under intoxication. The other was an instance of delirium tremens. Uric acid was detected in the brain in one case of ischuria renalis.

Spina bifida :—a case in which the caudal nerves were spread over the lining membrane, so as to make puncture dangerous.

Intervertebral ligament ruptured: —a vacuity was felt between the second and third lumbar vertebræ.

Spinal disease preceded by acute rheumatism: — the patient spoke of himself as cut in half. There was loss of power without loss of sensation. The disease ended fatally, and it was found seated in the spinal arachnoides.

Sentient extremities of nerves— acted on by belladonna, as evinced in the iris—both eyes sometimes affected by an application to one eye-brow.

Supposed spinal disease :—loss of motion without loss of sensation often arising from head affection. If the paralysis be in the lower limbs, M. Fovielle refers the disease to the thalami ; if in the upper, to the corpora striata. But if the lesion be at the anterior part of these bodies, the extremities may be affected simultaneously, owing to the contiguity of those portions of the brain.

Cases were related in proof that tumours may exist in the thalami without these effects being induced.

II. *Affections of the Chest.—Malformation of the heart* :—case in which the right auricle and ventricle were enlarged. The pulmonary artery was not above one sixth its usual size, but the branch of the artery proceeding to the right lung was very large, which was imputed to the ductus arteriosus remaining open. There was an opening in the septum ventriculorum, and the aorta may be said to have arisen from both ventricles. The left ventricle was small, and the parietes were thin. The symptoms had been small pulse, tumultuous action of the heart, face becoming purple on exertion, and hæmoptysis. An interesting discussion arose on the question of hæmoptysis with diminished size of the pulmonary artery. Three cases in which it occurred were related.

In an instance of obliterated pulmonary artery, notwithstanding open ductus arteriosus, the infant lived only three days, and dyspnœa was urgent.

Cases of opening in the septum were related, in which there had been no sign of admixture of blood, owing, as was supposed, to the direction of the muscular fibres of the septum.

Periodicity of affection of the heart: —an instance of this kind was related.

Lungs :—a case in which the veins of the parenchyma were extremely dilated, owing to a tubercular state of the left auricle of the heart.

III. *Affections of the Abdominal Viscera.—Stomach of the horse*:— large quantities of sulphate of copper received into, without the least trace in the blood or excretions. The difficulties attendant on such investigations exemplified by reference to those which long attended the detection of iron in blood.

Liver:—a remarkable instance of enlargement of. On the left side it extended as high as the second rib, displacing the heart, and on the right side as high as the third rib, descending to the eleventh rib.

Intestines:—hæmorrhage from, in an infant only a few days old. It terminated fatally, and the source of the bleeding could not be ascertained.

In another case of hæmorrhage from the intestines of a child five years of age, a small excrescence was found among the coagula. The separation of this had given occasion to the hæmorrhage.

Hernia :—cases related to show the mischief that sometimes results from returning the protruded bowel after a blow. Inflammation and mortification may ensue, and peritonitis be

induced by effusion of the contents of the canal.

Umbilicus:—case in which pressure on this part produced syncope. The patient, a child about five years of age, complained of a little pain, and it was on repeatedly examining the abdomen, by slight pressure, that this effect was discovered.

Constipation:—a very remarkable case of, detailed in a letter from Mr. Staniland to the president. The patient was a woman, ætat. 73. At twenty-four she began to require purgative medicine. The tendency gradually increased, till five years ago she had an evacuation once in two months, and the interval progressively lengthened. Some months before death she resorted to means to relieve constipation of four months' duration. They succeeded, and from her own account she parted with a bushel-full, but she declared she would rather die than undergo the like again. Seven months had elapsed, when she struck the right side, about the head of the colon. Inflammation came on, and ended in gangrene about the size of a crown. Fæces had escaped into the abdominal cavity, and occasioned death. The abdomen was like a half-hogshead, and as hard as a drum. The skin was tense and polished, and the muscles were absorbed. The skin and peritoneum were transparent, and as thin as a wafer. The colon was of extraordinary dimensions. The caput coli was about nine inches in diameter, and was crammed with fæces. In the rectum the fæces were as hard as wood. Her appetite had been good, and she did not refrain from her usual food of fat pork and vegetables.

IV. *Affections of the Urinary and Genital Organs.— Bladder:*— some cases of inflammation and ulceration in which pariera brava had given relief, were detailed. In one of the cases the bladder was found wholly deprived of mucous membrane, and the kidney was diseased. In another case there was a deposition in the kidney resembling putty. The difficulty of distinguishing, in these cases, whether disease began in the kidney or bladder pointed out. Sickness, a striking feature in renal disease, existed in one of the cases. In one case the kidney was filled with chalky matter.

Female urethra:—cases related in which surgery had triumphed in relieving the sad effects of loss of substance. The silk ligature was employed

Pregnancy:—paralysis of the lower limbs—tumour on the gum—impaired power of lower limbs from constipation—spontaneous salivation—reported as effects of this state in different women.

Monstrosities:—case in which the deformity was the result of deficiency of liquor amnii; the fœtus was closely folded up, so that the limbs lay almost concealed in the cellular substance of the body, and the bones were flattened.

Allusion to a discovery of Sir A. Cooper's, of a vein passing from one placenta to the other in a case of twins, one being a monster, and without heat, the absence of heart being supplied by this communication.

V. *Miscellaneous Subjects.—Cholera*:—numerous meetings were held when this disease prevailed, to obtain information respecting its nature and treatment.

Soft palate:—congenital division of—a case in which an operation was successfully performed. The only peculiarity in the operation was the employment of metallic ligatures. In such cases, when the parts cannot be brought together, it was advised that an incision be made in the soft palate on each side of the cleft, so as to relax the parts. These fill up by granulations. The intonation of voice improving in this case, though in most the nasal twang remains. Some unsuccessful cases were mentioned. In all kinds of defect, whether natural or morbid, the metallic ligatures considered the best, as shown by Professor Dieffenbach.

Harelip:—in remedying this form of defect, common lace pins reported

as preferable to those with moveable points; the points to be cut off.

Perineum:—ununited laceration of —a case in which the edges were paired off—and incision was made on each side to relax—and a common silk ligature employed with success.

Hydatids: instance in which numerous minute oval bodies were distributed among the fibres of the voluntary muscles, in a person who died of cancer penis.

Vaccine and variolous diseases coexistent:—a case in which both went through their regular progress at the same time, each maintaining its peculiar character. From another case of the same kind the two diseases were separately induced by inoculation with matter taken from the same person at the same time.

Nitrate of silver:—often useful in erysipelas, but not invariably so. Case of its application to a healing ulcer being followed by inflammation of the veins, and absorbents, and abscess in the axilla.

Iodine:—in a discussion on the virtues of this highly extolled and important agent, numerous cases of its utility were related. In strumous tumours—epilepsy—strumous ophthalmy—scirrhus uteri—bronchocele—passive hæmoptysis—lupus—ulcer of the pharanx considered carcinomatous—and enlargement of liver, it had been found beneficial. On the other hand, instances of disappointment were detailed.

Morphia:—was also the subject of several communications. The muriate and acetate had been found useful; but cases were related in which, even in small doses, they had induced an alarming degree of giddiness and prostration.

Tobacco infusion:—some instances of death or of danger, from its being employed as an external application in porrigo.

Ptyalism spontaneous:—several instances related. A man spat two quarts a day, and during its continuance he was well, but when it ceased he was maniacal. A young woman spat an enormous quantity. There was neither soreness of the gums, nor mercurial odour. The remedy most successful was sulphate of zinc. Said to arise sometimes from vegetable narcotics, especially henbane.

Perspiration, profuse:—considered analogous to the preceding. So extreme in a case related, that a vessel was placed under the bed to catch the fluid. It lasted some months, and terminated in death. The cause was unknown. The doctrine of vicarious and sympathetic irritation not duly pursued.

Hydrophobia:—case in a child æt 5. The animal was not rabid, but was excited by copulation. The utility of keeping bites open, as well as excising, urged.

Simulated diseases:—suppression of urine, secretly voided and drank.—Another case in which the patient, a young lady, rubbed her person with whiting, and brought 14lbs. of the substance from the country to town, for the purpose of maintaining the deception.

Bone:—a valuable paper by Dr. Hodgkin brought under the consideration of the Society numerous points connected with the formation and pathology of bone. It embraced the inorganic concretions called petrefactions, as in the coats of vessels, and some extraordinary examples were adduced. One specimen showed the aorta nearly obliterated. It described the formation of bone on the attached surfaces of the serous membranes, and a heart was exhibited with a bony ring of considerable breadth surrounding it. Excess of bone it ascribed to hyperæmia. A remarkable disposition in bone to fracture is referred, as a cause, to a rheumatic diathesis. Inflammation is described as taking place in the periosteum, and medullary membrane—and also in the bone itself; sometimes obliterating the vessels, as in the horn of the stag, and in the fang of a tooth, and causing the nourished part to perish. Under Ne-

crosis, it reported a case of reproduction of the clavicle, and described the agency of the periosteum in the process. It also delineated the process of nature in uniting fracture—thickening of the periosteum—inflammation of the soft parts—and deposition of new bone. The excessive deposition of callus, it stated, may be checked by those means which counteract high action.

Hip-disease:—case in which the head of the bone had been destroyed, and bony union to the ilium had taken place.

Joints:—some cases of curious and fatal affections of, after parturition. The serous membranes were the parts which generally suffered in addition to the joints, near which, in some instances, matter formed.

Some cases of affection of the joints from uterine irritation were related.

Amputation through abscess:—originating, not in constitutional, but in local causes—in which adhesion took place, as in ordinary cases. A reference was made to fistulous surfaces where they take on the character of mucous membrane. A bougie smeared with ointment, rolled in precipitate, and passed into the sinuses, had been found an effectual method of exciting new action.

Cutaneous absorption:—an interesting discussion took place on this subject. Circumstances were mentioned which favoured the idea of abrasion, and those which warrant the opinion, that the skin can absorb without abrasion. In some parts, as the axilla, perineum, &c. the cuticular was considered analogous to the mucous membranes. Mercury placed in the axillæ, becomes introduced into the constitution. Case of salivation from a mercurial plaster.

It was stated that mercury could not be detected in the blood, or secretions, by the most delicate tests—in disproof of the opinion that silver in the pocket becomes tarnished by the escape of mercury through the skin. Prussiate of potash introduced by rowel in the thigh of an ass, was detected in the blood.—Castor oil inunctions reported to have a cathartic effect.

Malacca:—an interesting communication from Captain Nixon, on the insalubrity of this island, was read. It described the disastrous effects that result on the first landing of troops—in the production of sores and gangrene of limb, and imputed them to want of nutritive animal food—bad water—and the depressing passions.

Reviews.

The Dublin Journal of Medical and Chemical Science, exhibiting a Comparative View of the latest Discoveries in Medicine, Surgery, Chemistry, and the Collateral Sciences. No. VII. Vol. III. March. Dublin: Hodges and Smith.

The present number of our respected contemporary maintains the high reputation it has already so justly obtained; and contains nine original communications. These are as follow:

1st, On Malignant Cholera, by S. M'Coy, Esq.; 2d, Observations on the Motions and Sounds of the Heart, by David C. Nagle, M.D.; 3d, Contributions to the History of the Chlorine Salts of Barium, by John Alldridge, Esq.; 4th, On Gangrene succeeding Cholera, by William Davis, Esq.; 5th, Cases of Fractures of the Long Bones in Children, by John George Dalton, Esq.; 6th, On the Pathology of Dislocation of the Shoulder Joint, by Philip Crampton, M.D., F.R.S., Surgeon-General; 7th, Contributions to Thoracic Pathology, by William Stokes, M.D.; 8th, Observations on Mediate Auscultation as a Guide in Difficult Labours, by Wm. O'Brien Adams, M.D.; and 9th, On the Contagion of Cholera, by William Harty, M.D.

We regret that want of time prevents us from analysing these essays at present, but we shall do so in our next. The productions of the Drs. Crampton, Stokes, and Harty, deserve especial notice, as these gentlemen

are well known to the profession by their former contributions to science.

New Views of the Process of Defecation and their Application to the Pathology and Treatment of the Diseases of the Stomach, Bowels, and other Organs; together with an Analytical Correction of Sir C. Bell's Views respecting the Nerves of the Face. By JAMES O'BEIRNE. M.D., Surgeon Extraordinary to the King, one of the Surgeons of the Richmond Surgical Hospital, Dublin, &c. &c. 8vo. pp. 286. Dublin, 1833. Hodges and Smith.

ALTHOUGH many works have been published on diseases of the abdominal viscera by the most eminent physicians of modern times, yet a vast deal of obscurity envelopes the subject; and we therefore took up this work before us with the hope of receiving information on points hitherto doubtful. We are highly gratified that our expectation is realized, and that our desire is accomplished; for we find a complete elucidation of numerous difficulties which heretofore were insurmountable. The author has not only overturned the physiology and pathology of the large intestines maintained by all his predecessors, but also their practice, and has substituted modes of treatment for many diseases deemed incurable by former writers, whose value are appreciable by ocular demonstration. He has added largely to practical medicine, and has given views entirely new on the treatment of diseases of the digestive system. Dr. O'Beirne has gained himself a reputation which must continue while medicine is cultivated. His opinions will save many a human being yet unborn, for the efficacy of his practice is unquestionable.

We shall endeavour to condense our author's views and arguments, because it is impossible to give extracts from books of any length in a weekly journal.

Dr. O'Beirne denies the general opinion of physiologists, that the use of the rectum is to contain fæcal matter, to allow its accumulation, and to act as an antagonist to the sphincter ani muscles.

He maintains the contrary, and states, that the healthy rectum is never a receptacle for feces, and that it acts in unison with the sphincters in keeping its cavity closed until the desire of evacuating overcomes both. He observes, "all that part of the rectum above its pouch is at all times, with the single exception of a few minutes previous to the evacuation of the bowels, firmly contracted and perfectly empty; at the same time, that the pouch itself, and also the sigmoid flexure of the colon, are always more or less open and pervious."

He argues, that if the rectum was a receptacle for feces, the accumulation of these would excite irritation in the bladder, and also in the sphincter ani muscles, thereby depriving the individual of the power of retaining his feces. It is likewise urged, that it is often difficult to pass an enema, and that the surgeon on passing his finger into the rectum scarcely ever finds feces there. It is also known that the pipe of an enema apparatus, on being withdrawn, is scarcely ever soiled with excrementitious matter. As a further proof of the point at issue, it is urged that the proximity of the sides of the rectum admits of the formation of membranous bands, and that in cases in which the sphincters are destroyed by cancer or syphilis, the power of retaining the alvine contents continues, which could not happen if the passage into the rectum was free, or if the power of retaining the feces, or regulating their discharge, depended solely on the sphincter muscles.

The following experiments confirm the preceding views, and deserve the serious attention of all engaged in the practice of medicine.

"I have been led to examine the rectum of a number of healthy persons, healthy at least as far as the bowels were concerned, at different times in the same day, in order to

ascertain its actual state, and as nearly as possible the time and manner in which it is filled. I proceeded in the following manner, and almost invariably obtained the following results. On passing a stomach tube to the height of half an inch up the rectum, neither flatus nor feces escaped through it; passing it up about an inch and a half higher, it was still found that nothing escaped, but that it could be moved about freely in a space which, on introducing the finger, was ascertained to be what anatomists call the pouch of the rectum, in a perfectly open and empty state. From the highest part of the pouch to the upper extremity of the bowel, generally a distance of from six or seven to eight inches, it was found that the tube could not be passed upwards without meeting with considerable resistance, and using a degree of force sufficient to mechanically dilate the intestine, which was plainly felt to be contracted so as to leave no cavity for this extent. When the instrument reached, in this way, the uppermost point of the rectum, the resistance to its passage upwards was felt to be sensibly increased, until at length, by using a proportionate degree of pressure, it passed forward rapidly, and as if through a ring, more or less tight, into a space in which its extremity could be moved with great freedom; and as instantly a rush of flatus, of fluid feces, or of both, took place through the tube. In some instances, indeed, it happened that neither gaseous nor liquid matter escaped at this moment, but, in all these, the distinct feel of the extremity of the tube having entered a solid mass in the flexure, was communicated to the hand; the instrument, on being withdrawn, exhibited a few inches of its upper extremity covered, and its eyes plugged up, with solid excrement; the person generally went to stool soon after, and passed a large quantity of solid feces. In every instance where the tube presented the least appearance of feces after being removed, this appearance was confined to that portion of its upper extremity which had entered the sigmoid flexure.

"In this way, I have also examined the rectum of healthy persons in a few minutes after they had passed a stool, and of others at the moment when they felt a moderate inclination to go to stool, and have ascertained that the rectum is in a perfectly empty and contracted state at both of these periods.

"The results of these examinations establish the correctness of the inferences drawn from a number of facts, but in a much more positive and precise manner; for they distinctly prove, first, that in the healthy and natural state, all that part of the rectum above its pouch, is at all times, with the single exception of a few minutes previous to evacuation of the bowels, firmly contracted and perfectly empty, at the same time that the pouch itself and also the sigmoid flexure of the colon, are always more or less open and pervious; lastly, that the sphincter ani muscles are merely subsidiary agents in retaining the feces."

Our author next proceeds to describe the anatomy of the intestines, and maintains two positions:—1st, that the rectum exceeds all other parts of the intestinal canal in its muscular coats and power; and, 2dly, that it is the only part of the digestive tube which receives nerves directly from the motific and sensific columns of the spinal marrow, and consequently that a much higher order of irritability and sensibility is bestowed upon it than upon any other portion of intestines. All the rectum above the pouch acts similarly to the œsophagus during deglutition, but this is prevented inferiorly by the insertion of the middle and posterior portions of the levator ani muscles, which act as antagonists, and keep the pouch open. This fact explains a point of practice hitherto inexplicable, and that is, our inability to inject more than two ounces of fluid in cases of irritation or spasm of the rectum, urethra, or urinary bladder; because the only part of the intestine not con-

tracted is the pouch, which does not contain a greater quantity than that already mentioned. At the evacuation of the rectum, the greater portion of the sigmoid flexure falls into the pelvis, hanging doubled over, and rather to the left of the rectum, remaining in this situation until it is again distended, when it is raised into the left iliac fossa, and the former position effectually prevents the descent of fluid or solid feces or even of gas (flatus), and thus secures the quiescent state of the rectum. This position is generally, if not invariably, observed in the dead body.

Lastly, as the rectum is firmly contracted and closed, and as the ileo-cœcal valve is open but does not admit a retrograde motion, it is evident that the cœcum, colon, and sigmoid flexure, must always be in a more or less full and open state.

Our author describes the natural passage of the contents of the stomach through the bowels, and contends that it is very much facilitated by the precedence of gas dilating the intestinal tube, thus obliterating the angles formed by the convolutions of the small intestines. Dr. O'Beirne denies that in either health or disease, the excrementitious matter or gas can return through the ileo-cœcal valve into the ilium. He quotes Caspar Bauhinus, and Portal on this point, employs much ingenious argument, and to us conclusive, that the action of the ileo-cœcal valve is never reversed nor in disease. When the fecal matter has descended into the rectum, it presses the prostate gland against the pubis, and hence the urine is not evacuated until after the rectum. It appears by numerous experiments, that an elastic tube passed into the flexure allowed the escape of gas, was withdrawn unsoiled, and on being reintroduced in four or five minutes, fluid feces passed through it, and its upper extremity was coated with solid feces. It therefore appears, that the cœcum must be filled before it is unloaded, and that there is one mass of fecal matter in the cœcum and another in the sigmoid flexure, and two distinct efforts are required before a healthy person finds his bowels sufficiently freed.

Our author next applies his views to the causes of diseases, and here he is entitled to great praise for elucidating many intricate and hitherto inexplicable pathological questions. He shows how morbid irritation will act on the most muscular and excitable portion of the bowels, and cause diarrhœa, or, if too violent, induce spasm, contraction, or constipation. When the constipation is obstinate, the patient often feels little inconvenience: he takes the ordinary quantity of food until the cœcum and colon become so distended that they can no longer admit the contents of the ilium, and then pain about the navel or colic is produced. The accumulation of feces and gas proceeds; irritation is excited; there is no passage outwards, the abdominal muscles are roused into action, and the contents of the bowels are got rid of by the mouth, the direction in which they can pass with least resistance, and ilius or the iliac passion is induced. Finally, unless the sufferer is relieved from this condition, he must either die, exhausted by excessive pain and debility, or the distention of the intestines goes on until the laminæ of the mesentery are separated, the serous membrane is stretched or torn, and ilius is changed into peritonitis or enteritis.

When we consider the frequent accumulations in the flexure, from the common and pernicious habit of disobeying the natural calls to stool, how often improper aliments, drastic medicines are employed, and the hepatic and intestinal secretions are vitiated, it is scarcely possible not to admit but that this part of the intestine is in a very constant state of excitement and spasm. Hence it is, that spasmodic stricture is of such frequent occurrence in this particular situation, and that constipation is so general a feature of disease. Here our author most ably controverts the denial of Professors

Colles and Cooper, of Mr. White of Bath, of Messrs. Salmon and Calvert of London.

Upon this dispute, among so many Arcadians, all able to defend themselves, we shall not venture an opinion, though we entertain one, but say with the illustrious poet, from whom we borrow our allegory:

"Non nostrum inter vos tantas componere lites."

We may observe, however, that the three gentlemen, named last, consider the narrow neck, or contraction of the flexure, as the result of congenital malformation, while our author ascribes it to spasmodic stricture. As there are so many against him, we feel ourselves bound in justice to insert his defence, which appears perfectly satisfactory.

"Previous to the formation of spasmodic stricture in this situation and in this way, that particular part of the mucous membrane, which lines the stricture, is far more exposed than any other to the irritation arising from the weight, impulse, and perhaps acrimonious nature of the contents of the flexure; but it becomes still more and more exposed after the formation of the stricture, until at length it is excited to a mild kind of inflammatory action, which soon extends to the corresponding portion of the muscular coat, but is prevented from extending further by the effusion of coagulable lymph, and the formation of adhesions between the two coats; thickening and, of course, coarctation of the parietes of this part of the canal follow, and thus spasmodic is converted into organic stricture. If this kind of stricture be of long standing, and if it should happen to occur in a person, in whom age and natural predisposition concur in giving such a tendency, it will ultimately degenerate into and become of a scirrhous and malignant nature."

Our author also denies the accuracy of the conclusions of White, Copland, Sir C. Bell, Salmon, Calvert, and many others, as to the stricture in the lower part of the rectum; and he states, that he examined all the specimens in the museums of the Colleges of Physicians, Surgeons, and in three private schools in Dublin, and never saw a single example; for in all cases the disease was at the termination of the flexure, or at a short distance above or below it. He offers the following explanation of the misconception of these gentlemen. He says, that in examining the healthy rectum, the finger will pass up two inches, and may be freely moved about in the pouch, but if passed higher, it will encounter a firm ring, which might be easily mistaken for a septum or stricture, but which is perfectly natural; when the finger is passed still higher, it will encounter little resistance, but wherever it stops, there the feel of obstruction will be perceived, and thus a deceptive sensation of a succession of strictures may be produced. If this be true of the healthy rectum, we can readily apply it to the diseased. This important information is deeply instructive to those who may be called on to pass bougies, as they are enabled to comprehend the repeated difficulties which occur in the use of those instruments.

Here we must pause for the present; but we are satisfied we have given our readers ample proof of the immense value of Dr. O'Beirne's work. For ourselves, we are completely convinced, that it will lead to the greatest improvements in the practice of medicine. We congratulate the author on the originality of his views and their importance to science and humanity.

Notices to Correspondents in our next.

Amount of Subscriptions already received in aid of Dr. Ryan . . £218 18 0

Errata.—P. 217, col. 2, line 13 from bottom, *for* giving, *read* gaining; and p. 218, col. 1, line 18 from top, *after* fees, *insert* as well as those large premiums for.

In the report of the proceedings of the Medical Society of London, in our last, *for* Dr. Hendy, *read* Dr. Hendley.

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 61. SATURDAY, MARCH 30, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXIX., DELIVERED DEC. 10, 1832.

Gentlemen,—On Thursday evening, I considered, amongst other subjects, the best means of promoting the cure of wounds by *adhesion*, or, as it is called, by *the first intention*. I will now call your attention to the principal features of this process, or rather to the steps, which nature takes in bringing it about. The effusion of coagulating lymph, which constitutes the earliest and most simple connexion between the surfaces of the wound, after they have been put in apposition, is not a simple mechanical process, but the result of what John Hunter would have called an action of the minute capillary vessels,—perhaps, an *increased* action of them; yet, only increased in a very moderate degree, without the production of much pain, heat, throbbing, or other effects of common inflammation. Now, although Mr. Hunter considered union by the first intention, as an example of adhesive inflammation, and, as accompanied by an increased action of the vessels of the part, a doubt is sometimes entertained whether the process should be regarded as an inflammatory one at all. As far as I can judge, however, Mr. Hunter's views have the greatest probability, the effusion of coagulating lymph itself being, according to my conception, a proof of increased action. At the same time, so slightly is the action of the vessels increased—so little is it above the natural standard—that if the inflammation rise beyond a very moderate degree, there will not be union by the first intention, but suppuration. At all events, I may say, that the best prospect of union by the first intention occurs when the inflammation in question is exceedingly slight. Another fact tends to prove that the process is attended with increased action: surgeons sometimes amputate the limbs of very aged persons, of individuals eighty or ninety years of age, or of persons in a most debilitated state; they bring the sides of the wound together, and dress the stump according to the most approved principles; but when they remove the dressings at the end of a few days, they occasionally find, that no more union has taken place in the part, than if it had been the stump of a dead body. There may have been a total want of power to produce the requisite action in the parts. It seems, therefore, as if an increased action of the capillary vessels, and some degree of inflammation, were essentially necessary for the accomplishment of the process under consideration.

Gentlemen, after the effusion of coagulating lymph, the next thing is the extension of new, or, as they might be called, young minute vessels into it; and this is quickly followed by an intercourse between the vessels of the opposite sides of the wound. With respect to the manner in which these new vessels are produced, two doctrines have been maintained; in one, they are viewed as the production of the coagulating lymph itself, in which they are supposed to be generated by some inexplicable operation of nature; in the other, they are regarded as prolongations from the neighbouring original vessels, as shoots from the vessels on the surfaces of the wound, and as growing, as the roots of a plant into the soil, into the coagulating lymph. John Hunter, in the early part of his life, adopted the first of these doctrines, namely, that the vessels are generated in the coagulating lymph itself; but this hypothesis is now generally rejected, and the best pathologists of the present day refer the production of the new vessels to a process, in which they grow from vessels already existing in the neighbouring surfaces. Probably the new vessels are also continued from the smallest ones in the surrounding parts, because, we know, that the larger ramifications are obliterated by the coagulating lymph itself.

In confirmation of the truth of this theory, I may state, that John Hunter, in the latter part of his life, renounced the view which he had adopted in his younger days, chiefly in consequence of certain facts observed in the growth of the young chick; and he came to the conclusion, that the vessels, which pervade the coagulating lymph, and, at length, open a permanent and regular communication between the vessels of the opposite sides of the wound, are only extensions, or shoots, from the old ones. As for the process, by which the vessels of one side of the wound establish inosculations with those of the opposite side, this is a secret, into which the prying search of the microscopical philosopher has not yet penetrated; he has been totally unable to discover how this change, which is one of the next steps in the process of union by the first intention, is brought about. We know, however, that the fact takes place, and that it is principally effected in the new capillary vessels, though after a communication has been opened, the small inosculating arteries may acquire a greater diameter, and admit of being filled with red blood, and anatomical injection.

Gentlemen, if I were called upon to fix upon any one circumstance which has had more influence than any other in improving the state of surgery, I should certainly assign this importance to our right comprehension of the principles of union by the first intention, and to our neglecting no proper opportunity of putting this advantageous method of cure in practice. I may ask, what was one of the causes of the ill success which formerly attended the operation for aneurism? Certainly it was because the surgeon omitted to close the wound: this was the case with the first operation for aneurism performed by Mr. Hunter himself; he omitted to bring the sides of the wound together, and this circumstance, together with that of his leaving a quantity of extraneous matter in the wound, was no doubt the cause of the ulceration of the artery. Then, I may inquire, what caused secondary hæmorrhage, the formation of enormous abscesses, and the retraction of the muscles, which was so frequently observed after amputation of the thigh in former days? It was because surgical practitioners did not then understand the advantages of the process of union by the first intention,—because, in fact, they neglected taking steps for promoting this method of cure, which would have prevented the occurrence of those evils to which I have just alluded. What was the ordinary cause of the greater fatality of all wounds, whether from accidents or operations, but the neglect of union by the first intention, joined with an insufficient knowledge of the best principles to be observed in the treatment of wounded arteries?

When union by the first intention takes place, it is generally accomplished in three or four days; and when a wound is made with a clean sharp instrument, is not very extensive, and situated in a vascular part, it may be cured by this process in even a shorter time. Sometimes a wound is only partially united, and at certain points, especially where ligatures are situated, suppuration takes place; but, when such is the result, the practice has not failed, but been productive of good to the extent of the adhesion; while no harm has been done, since the rest of the wound is quite in as favourable a state for healing, as it would have been if any other treatment had been pursued.

The observations which I have hitherto delivered on the cure of wounds, relate chiefly to the means of stopping hæmorrhage, and the methods of promoting *union by the first intention:* with regard to *union by the second intention,* or that mode of cure comprehending *suppuration, granulation,* and *cicatrization,* it will more conveniently come under consideration, when I have got through the description of *contused* and *lacerated wounds,* which will claim our attention, as soon as the subject of *punctured wounds,* the very next for notice, has been concluded. The reason why I propose to describe the process of *union by the second intention,* after lacerated and contused wounds have been treated of, is, because they usually heal by this process, and do not admit of a more expeditious mode of cure.

Punctured Wounds are such as are produced with sharp pointed instruments; their orifices are of course narrow, and the depth of the injury frequently very great, so that important organs may be involved in it. Punctured wounds are liable, however, to considerable diversity, as you may conceive, when you remember, that they comprise every gradation between the prick of a needle or pin, or the puncture of a thorn, and the stab of a sword, a bayonet, or a lance. Hence their degree of severity must be remarkably different in different instances, according to the nature of the parts wounded, and the depth of the wound itself. Some punctured wounds simply penetrate the integuments and common textures; while others extend to a surprising depth, sparing neither the large blood-vessels, the trunks of nerves, nor any important viscus, which may be in the way of the instrument or weapon. Hence many of them prove immediately and unavoidably fatal from internal hæmorrhage, the patient dies at once from the quantity of blood suddenly abstracted from the system, while others are exceedingly dangerous, in consequence of having pierced organs like the bladder, stomach, intestines, liver, &c. Stabs of the thorax frequently kill at once, in consequence of profuse internal hæmorrhage from some of the greatest blood-vessels in the body, or even from the heart itself. Sometimes the patient falls a victim to the effusion of blood in the bronchia; in fact, he is suffocated. Then, gentlemen, wounds of the chest may bring on one danger-

ous effect, not noticed in any common wounds, viz. *emphysema*, the air escaping out of a wound in the lungs into the cavity of the pleura, and thence through the opening in the pleura costalis into the cellular membrane. How this happens, will be more conveniently explained when I come to the subject of emphysema; you will then find, that by the alternate dilatation and contraction of the parietes of the chest in respiration, air is drawn out of the lungs into the cavity of the pleura, and forced into the cellular texture, in which it spreads in an extraordinary and sometimes fatal degree over the whole body.

Deep punctured wounds, and especially those which are inflicted with considerable violence, like those caused by a bayonet, lance, or sword, are often followed by severe inflammation and its common effects, swelling, heat, pain, redness, and fever; but this is not all, for such inflammation frequently proceeds to suppuration, and large accumulations of matter are liable to take place, especially when the weapon has penetrated parts, over which a dense fascia, or aponeurosis is extended. In such cases, it seems, as if the constriction of the parts, their confinement by the tendinous expansion, rendered the inflammation more severe; but, whether this be the fact or not, the interposition of a thick fascia between the matter and the surface must give a disposition to the abscess to extend itself. The symptoms do not arise exactly from the puncture of the fascia or aponeurosis, but from the injury to the parts underneath it, and the effects of such fascia or aponeurosis, in constricting the inflamed parts, and retarding the progress of abscesses to the skin. The old surgeons used to ascribe the ill consequences to the wound of the fascia itself; but this idea, I believe, is renounced; no surgeons, at the present day, have any apprehension of this kind, they know very well, that the severe symptoms, often following punctured wounds, arise from injury of more important textures than a fascia: what ought to satisfy us, that the mere prick of the fascia is not in itself a serious or dangerous circumstance, is the fact, that one of the principal means of relief actually consists in dividing the tendinous expansion, in wounding it again, so as to form an outlet for the matter confined under it.

A few years ago, it was the established practice to enlarge the orifice of every deep punctured wound—the knife was immediately employed for this purpose; and the practice was adopted on the principle of diminishing the constriction and tension of the parts, and affording ready escape for the matter when formed. Even at the present day, this method is sometimes pursued, but the most judicious surgeons act with less precipitation, and defer the dilatation of the wound, at all events, till suppuration has taken place; and, if no abscess form whatsoever, then they entirely dispense with the knife. The abscesses, which give the surgeon the greatest trouble in these cases, because no outlet for matter is required, take place under fasciæ; and it is manifest, that whether you dilate the orifice or not, before matter is really formed, it will have little or no effect on textures situated more deeply than the fascia itself, and which have suffered injury.

After having attended to hæmorrhage, and the removal of foreign bodies (for sometimes even in punctured wounds, foreign bodies are to be found, as when the point of the instrument breaks and lodges in the wound), and, after having reduced protruded viscera, if there be such a complication, of which I saw many examples during the last war, the next indication is to endeavour to prevent inflammation, or to hinder it from rising to that height which would be productive of suppuration. With this view, instead of introducing tents, as was done sixty or seventy years ago, we apply only simple superficial unirritating dressings, and cover them with linen wetted in a cold evaporating lotion. When much swelling and inflammation follow, leeches must be freely used, and venesection practised as copiously and as often as circumstances may demand. Indeed, venesection will generally be proper, unless contra-indicated by the patient having already lost a considerable quantity of blood from the wound itself, and been exceedingly reduced by this or other causes. The treatment, therefore, consists of light superficial dressings and antiphlogistic measures, joined with low diet, and quietness of the part. I put little faith myself in the usefulness of tight bandages to punctured wounds, because we know, that a great degree of swelling is apt to follow such injuries, and pressure would then be more likely to do harm than good; if a bandage be used at all, be careful not to apply it too tightly, for, if you were to neglect this precaution, and the part were to become affected with swelling, the constriction might occasion pain, and even gangrenous mischief. A bandage, if used at first, should be merely put on for the purpose of retaining the dressings. After a day or two, if the parts become hot, swelled, tense, and painful, you should discontinue the cold applications, and have recourse to warm emollient ones, such as linseed meal poultices, and fomentations with flannels, wrung out of a decoction of poppy-heads, or camomile flowers.

Gentlemen, when the matter has formed, you must then make an early, a depending, and a free opening, and maintain it till all risk of another accumulation of matter has passed away. When the probability of such an occurrence no longer prevails, you should leave off the poultices, and apply common dressings and a bandage. According to the principles, which I have laid down for the treatment of punctured wounds, it appears, that the making of an incision in the early stage of these cases, is only advantageous and necessary, when made for the removal of extraneous bodies, the tying of an artery, or facilitating the re-

duction of a protruded bowel: under these circumstances, of course, the sooner you dilate the orifice of the wound the better; but, in the state of things most usually observed, the established maxim is, not to enlarge the orifice of the wound until suppuration has taken place, and matter is confined; you may then either take this step, or make a free and depending opening, and maintain it till all risk of a further accumulation of pus is over. At first, apply light superficial unirritating dressings, and cold evaporating lotions, which are to be exchanged for emollient applications, as soon as a considerable degree of swelling and tension have come on, and a disposition to suppuration is evinced; venesection, leeches, and other antiphlogistic means must, of course, not be omitted.

Gentlemen, the next description of wounds, to which I request your attention, comprises the *contused*, which are produced by the collision of a part of the body against some obtuse or blunt surface, or weapon, by which the skin and other textures are not only broken, or divided, but more or less bruised: to the solution of continuity, as it is termed, there is added then other mischief. When external violence is applied, in the way to which I have alluded, the part of the surface of the body, against which it is directed, may be simply bruised, without any breach in the skin being produced at all: in this circumstance, the injury is a *contusion*, a species of injury which will be considered in a future lecture.

When a contused wound happens in a situation, where the surface of a bone is only covered with integuments, in addition to the periosteum, it is manifest, that the skin must suffer considerably, because, at the time of the accident, it is pinched and violently pressed, as it were, between two hard substances, namely, the weapon, or body, by which, or against which it has been struck, and the unyielding surface of the subjacent bone. It is for this very reason, joined with the circumstance of the injury being situated in the lower extremities, and those perhaps of an intemperate subject, that contused wounds of the shin are so troublesome to cure; for, in fact, the portion of integuments, which has been exposed to the violence, is so hurt, that it can rarely be prevented from sloughing, and an ill-conditioned ulcer, attended with loss of substance, is the consequence.

What is a gun-shot wound, gentlemen, but a severely contused wound, generally extending to a great depth, through many textures and organs, frequently, indeed, completely through the body, the ball entering at one side, and making its exit at the other, after having spared neither bone, blood-vessel, nerve, bowel, nor any other important organ, which happened to be in its way? A gun-shot wound is, in every sense of the expression, a violently contused wound, attended with the foregoing peculiarities, and some others, to which I shall soon have to request your particular attention.

In books and lectures on surgery, it is true, we do not treat of gun-shot wounds together with ordinary contused wounds, but allot a separate consideration to them; and, as far as I can judge, the method is a good one, because the latter cases are undoubtedly characterized by several peculiarities, which do not appertain to the former, and they embrace a variety of difficult and momentous questions, which demand the most deliberate and undivided attention. As an additional reason for taking up the subject of gun-shot wounds separately, I might urge its vast importance, in illustrating many of the common principles of surgery.

Gentlemen, if John Hunter, in the capacity of an army surgeon, could deduce, from the observation of such injuries, the greater part of those valuable, and, I may say, immortal doctrines, which are contained in his Treatise on the Blood, Inflammation, and Gun-shot Wounds, I am certain, that some of you, when it comes to your turn to have the same opportunities which he had of studying gun-shot wounds, will derive from them a rich store of information, such as will tend to the improvement of surgery, and the benefit of mankind.

The generality of wounds, I may say, are attended with some degree of contusion—that is to say, the fibres of the injured part are partly bruised as well as divided. It is only wounds which are made with the sharpest instruments that can be strictly regarded as simple cuts. The stab of a lance, or bayonet, is not merely a punctured wound: it is always complicated with contusion, not merely on account of the violence with which it is inflicted, but on account of the suddenly increasing thickness of the weapon, which, after the point has entered the flesh, must force a way for its thicker part, on the principle of a wedge.

Gentlemen, I will now mention to you a few of the peculiarities of contused wounds.

1st. The first is their general indisposition to heal by the first intention.

2d. Their tendency to be followed by more or less sloughing.

3d. Their having little propensity to bleed much, even though vessels of considerable size may be involved in the injury. Sometimes, however, on the loosening of the sloughs, profuse hæmorrhage will take place; but this only happens when the slough does not extend through the parts all round the vessel, but only to such as are on one side of it; for, when the first of these circumstances occurs, a clot of blood is always formed in the vessel as high as the first great collateral branch, and hæmorrhage is effectually prevented, as I related to you in the account of mortification.

All the above-mentioned peculiarities are also convincingly exemplified in gun-shot wounds; a fact proving the statement which I have made, that they partake, in every sense of the expression, of the nature and character of contused wounds.

The slight hæmorrhage, usually following

a contused wound, might lead you to suppose this to be a circumstance in which they were less dangerous than incised wounds: and such is the case; but then, it is more than counterbalanced by the reflection, that the very fact of there being little hæmorrhage, though great vessels are concerned, furnishes a proof of the degree of violence which the parts have sustained, in addition to their mere division. Bleeding vessels we can command and tie; but textures, which are disorganized by external violence beyond a certain degree, we cannot rectify or save—they are out of the power of surgery.

Whatever attempts we may make to bring about the re-union of the sides of a contused wound by the adhesive process, without suppuration—however skilfully they may be conducted—success rarely or never attends them. A good deal of the surface of such a wound must unavoidably slough; and the remainder suppurate. Perhaps the part which has the best chance of escaping these consequences is that which lies furthest from the surface, where a partial cure by adhesion will sometimes happen.

It is a question of some importance, whether, under all the circumstances, we should ever try to heal contused wounds by the first intention. My own experience would lead me to answer this question in the negative; first, because it hardly ever succeeds; and secondly, because the pressure necessary to afford the chance of it is one of the most pernicious plans which can possibly be applied to wounds of this description. In my employment formerly, as an army surgeon, I am sure that I saw many contused wounds followed by mortification of limbs, entirely in consequence of the pressure of tight bandages. As far as I can judge from experience, then, contused wounds will not bear pressure; and it is our duty to leave them as free from constriction as possible. All tight bandages, all dragging of the parts together with sutures, all irritation and constriction of them with numerous strips of adhesive plaster, are to be reprobated.

According to my views, you cannot proceed safely with such means: you must leave the parts at liberty, and have recourse to light unirritating dressings, over which you may apply a cold evaporating lotion, or a poultice. If considerable inflammation and swelling should follow, you are to have recourse to venesection, leeches, and fomentations, with all the means usually comprised under the term *antiphlogistic treatment*.

I believe that, generally speaking, cold applications answer best for the first two or three days, after which warm emollient poultices and fomentations are preferable.

Now, although I have advised you to avoid making pressure on contused wounds, or drawing their sides tightly together with sticking plaster, or sutures, it is not meant that you should not bring detached flaps and angles of the skin into their proper position at once; but this is to be done gently, without any forcible dragging, or compression of the parts. With the due observance of this principle, there could be no objection to the light application of one or two narrow strips of adhesive plaster; but I much doubt the utility or prudence of ever using sutures for the purpose.

If we were not to replace loose separated flaps of integuments, and take means for keeping them gently in their right position, we should often leave extensive portions of bone exposed, the consequence of which would frequently be large and tedious exfoliation.

Thus, in contused wounds of the scalp, extensive portions of the cranium are often denuded, &c. The front surface of the tibia is frequently exposed in the same way.

Contused wounds do not admit of union by the first intention; or, if any part of them heal in this prompt way, it is only that which has suffered the least violence, and is generally the most remote from the surface. The process by which they are cured, after the detachment of sloughs, is the same as what brings about the cure of ulcers in general. I will describe it, after noticing the next species of wounds, namely those which are *lacerated*, and which heal in a similar manner.

Lacerated wounds, as the expression informs us sufficiently well, are those in which the injured parts are not cut, but torn; and, like what happens in contused wounds, they suffer considerable violence, in addition to the solution of continuity in them: hence, the inflammation which follows generally rises above that degree which is compatible with union by the first intention; suppuration ensues, and frequently sloughing, so that the only mode of cure which can take place, is that in which the processes of suppuration, granulation, and cicatrization are concerned. Lacerated wounds are very analogous to contused ones in another respect; sometimes they do not bleed in an alarming degree, even when arteries of important size are involved in the injury: they bleed, however, more frequently and copiously than contused wounds. After the battle of Waterloo, many soldiers were brought into the hospital to which I was attached, whose limbs had been so shattered and torn by cannon-balls and grape-shot, that the lower part of the leg sometimes retained connexion with the rest of the body merely by a piece of the integuments; yet scarcely any bleeding occurred, though all the principal arteries of the limb were torn through. These wounds were, however, contused as well as lacerated.

Some of the most extraordinary wounds ever received, come under the denomination of lacerated wounds. I allude to cases in which whole limbs are sometimes torn off by their getting accidentally entangled in machinery. Now, in such examples, the bleeding is sometimes inconsiderable, and, if other parts of the body are not injured, the patient often recovers.

The facts recorded in proof of these state-

ments, by Cheselden, Lamotte, Professor Gibson, and others, are particularly interesting;—they are such as would not have been anticipated by any reasoning founded only upon theory, unconnected with the lessons of experience. In the case of the miller, related by Cheselden in the Philosophical Transactions, the arm was torn off at the shoulder-joint; yet, the man was not lost by hæmorrhage, though no surgeon was on the spot at the time of the accident; and in a few weeks the case terminated in a complete cicatrization of all the lacerated parts. The axillary artery required no ligature. The fact, which has been mentioned, of the indisposition of lacerated wounds to heal without suppuration, must convince us of the inutility of bringing their edges together with great accuracy. The pressure necessary for this purpose would have an injurious effect, and this without any chance of accomplishing union by the first intention. Injuries of this description are often followed by a great degree of inflammation and swelling, on which the constriction of tight bandage would have the worst consequences. It is, therefore, best to leave the parts in a free and unconfined state; by which advice, gentlemen, I do not wish you to understand that you may not replace flaps of the skin, which may have been raised and removed from the subjacent parts, or that you ought not to apply here and there a strip of plaster, or even a suture for retaining them in their natural position. What I wish to impress upon your mind is, the disadvantage of employing much pressure to bring the edges of a lacerated wound together, or of dragging them together forcibly with sutures or strips of adhesive plaster.

At first you may have recourse to simple light dressings, covered with a cold evaporating lotion. If the injury be severe, bleeding is indicated, and even a repetition of it, with aperient medicines, low diet, &c. After a day or two, when the inflammation and swelling have begun, use leeches and emollient poultices and fomentations.

In three or four days, the surface of the wound will have suppurated; and if any part of it is to slough, how far this mischief is likely to happen will now be seen: the poultices are to be continued until the wound has become clean and free from sloughs, and the swelling has subsided. We may then discontinue them, and have recourse to common dressings. At this period the approximation of the opposite sides of the wound, and the diminution of its cavity with strips of adhesive plaster, and a bandage, may be safely and advantageously employed.

The most common examples of lacerated wounds are injuries in which the soft parts are torn with nails or spikes; wounds inflicted by machinery; the bites of horses, dogs, and other animals. Lacerated wounds sometimes cause mortification. I remember a case in which a drayman's leg, as he was sitting on his dray, was so lacerated by a piece of iron projecting from a cart or waggon that passed him, that the skin over the tibia was torn open from the knee to the ankle. Mortification rapidly ensued, and the man died in less than forty-eight hours. You know that men of this employment are bad subjects for accidents or disease; and possibly, if the injury had taken place in a more favourable constitution, the result might have been different. It was an instance, in which, I think, amputation should have been performed early.

The observations on the uselessness of much pressure, or of closing a lacerated wound very nicely, are general ones, liable of course to exceptions. An interesting account of a remarkable lacerated wound is given by Dr. Kennedy: the injury arose from a bite of a shark, in India. The abdominal muscles were divided and reflected; the colon and other intestines completely denuded; the three lower ribs were exposed; the gluteal muscles torn; the tendons about the trochanter major severed; and a large portion of the vastus externus and rectus femoris bitten through to the bone. Yet, notwithstanding all this mischief, the patient recovered. The parts were brought together with strips of adhesive plaster, which were applied round the body, and made to cross over the edges of the wound: these were covered with light dressings, and the many-tailed bandage.

This enormous wound, laying open the cavity of the abdomen, and implicating so many important parts, was cured by these means, and common antiphlogistic treatment, without the aid of any suture.

Had it not been for the resistance of the trochanter major to the shark's teeth, the whole portion of the body below the grasp of the animal's jaw would have been bitten completely off. In this case the bleeding was considerable, and was probably one of the chief means of saving life, by keeping down the inflammation. The patient was a native of India: whether one of Europe's sons would have been able to bear so much, is a question which I cannot answer.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE XVI.

Pathology of Phthisis concluded.

When we last met, I spoke of the different forms of phthisis, and made some remarks on tubercles; let me revert for a moment to this subject. I have stated, that I considered tubercles not as the cause of phthisis, but as the result of a certain diathesis, to which the name of scrofulous habit had been given; I

should, however, be conveying an erroneous idea of the peculiarities of the disease, if I were to omit mentioning that whatever produces a tendency to the lungs gives rise to phthisical development. You will find in the works of Laennec, that he states that bronchitis never hastens the development of tubercles. I must, in the most positive manner, deny the truth of this statement. It is a very dangerous thing for a person of a scrofulous habit to get an attack of cold, producing catarrh, or inflammation of the lungs, as it has a direct tendency to bring on tubercular development and suppuration. If persons be weakly, unhealthy, and of a scrofulous constitution, and get cold and inflammation of the lungs, they are more liable to have consumptive suppuration of the congested than of any other portion of the lung; for the same reason that a simple injury, producing inflammation of the hip or knee joint in a scrofulous habit, may degenerate into true scrofulous ulceration of these parts. Hence common bronchitis in a scrofulous habit may become true scrofulous bronchitis, and common pneumonia may end in the scrofulous consolidation and burrowing ulceration of the lung peculiar to phthisis.

I am afraid, gentlemen, that you will think me tedious and guilty of repetition on this subject; but its importance is paramount, and I wish to impress on you that every form of phthisis is connected with scrofulous inflammation of the lung. Compare scrofulous and long-continued inflammation of the knee or hip joint and their attending symptoms with the symptoms of phthisis. Have we not the same fever, the same sweats, the same diarrhœa, the same emaciation, the same state of urine and pulse? Are not all the symptoms which attend these diseases, I mean the general and constitutional symptoms, identical? Let me observe that there is not one of those cases in which you will not be able to trace the existence of scrofula, and I trust that you will assent to this proposition, that the inflammation of the lungs in phthisis is scrofulous. You may be inclined to doubt that there is such a thing as scrofulous bronchitis, but let me remind you, that there are cases of persons in the decline of life who have long-continued cough, purulent expectoration, emaciation, sweats, hectic fever, and diarrhœa; and when you dissect one of those persons, you find the mucous membrane of the bronchial tubes red and hypertrophied, and a great quantity of purulent fluid in the lungs, but not the slightest trace of tubercle. You may say, I have made here a good diagnosis, this person has died of chronic catarrh; but this is improper; many of those cases are scrofulous inflammation of the bronchial mucous membrane. You will generally observe, that those cases are much more difficult of cure than mere bronchitis; that the same treatment, the same regimen, the same attention to change of air, and tonic and strengthening diet, will not do. No one dies from an attack of common bronchitis except the very aged, or persons in whom it is very general and very acute; and here its rapid termination sufficiently distinguishes it from the form I have described; but we have repeated instances of bronchitis lasting for months without destroying the patient, and capable of being removed by the ordinary means, except when it occurs in a scrofulous diathesis. It is obvious that phthisis may prove fatal by the rapid and extensive development of tubercles without any of the peculiar phenomena of pneumonia or bronchitis; yet it most commonly happens that owing to their being produced by the same cause, we have the three different forms of scrofulous inflammation in the same phthisical patient, although it is by no means rare to meet with them in a separate and distinct state.

I have mentioned on a former occasion that I did not consider inflammation as the cause of tubercular development; nevertheless, I must not omit stating, that it greatly increases the tendency to them by bringing more (generally unhealthy) blood to the lung, and thus encouraging the formation of morbid deposits; and this leads us to the consideration of another question, why are tubercles so common and so copious in the lung more than in any other tissue? I believe there has not been as yet any satisfactory solution of this phenomenon; but it may tend to throw some light on this obscure subject, if we call to mind one of the most striking peculiarities of the lung, namely, that it is the only organ through which the entire mass of the blood circulates. Through other organs, a portion only of the blood is transmitted; but the whole current of the circulation passes through the lungs. It is in the lungs also that the change which the blood undergoes takes place exclusively, and its particles experience that mutation which renders them subservient to the purposes of life. Whatever has been added or subtracted from the blood by the processes of sanguification or secretion is corrected by the operation which it undergoes in the lungs, and hence they stand in relation to the blood differently from other parts. They receive, transmit, and produce changes in the blood differing from those it experiences in any other organ, and this may perhaps account in some way for the frequency of tubercles in the lungs. Tubercles are a disease of nutrition, a process which depends intimately on the blood; and it may not seem strange that they should be most frequent and numerous in an organ which has a more intimate connexion with the sanguineous circulation than any other. I have stated that in persons of scrofulous habit, whatever produces congestion in the lung is liable to bring on phthisis, and hence it is that tubercles are found to succeed the different forms of chest disease in which congestion of lung is a general feature. It is not that more blood passes through the

uninflamed portion, or that it receives more than the sound part. On the contrary, perhaps one hundred times as much blood is transmitted through the healthy part, but the mode in which it passes is very different. It passes rapidly and freely through the uninflamed portion of the lung, and is aerated on its passage; but in the inflamed part the blood is retarded in its progress, and, comparatively speaking, stagnates: it is, as it were, out of the general current of the circulation, *hors de la route;* it becomes diminished, both in its velocity and quantity, because the unsound and disorganized portion of the lung is unable to effect those vital changes which depend on the perfect state of its functions. Hence, you perceive, that whatever increases the stagnation of blood or the engorgement of the lung brings on a state of that fluid in which there is both detention and imperfect aeration, circumstances which are apt to produce, not the nutrition of the organ in which they occur, but the formation of morbid depositions, and this appears to be the reason why inflammation and engorgement occasion tubercular development.

With regard to the time of life, at which phthisis is found to occur most frequently, Lombard, Alison, and Andral have corrected some important errors in the opinions previously existing on this subject. From their investigations, it appears, that, from one to two years of age, tubercular consumption is very rare, that its frequency increases from four to five, that it then remains nearly stationary until puberty, when the tendency to tubercular development is suddenly revived. As old age comes on, this tendency diminishes, and tubercular consumption is of comparatively rare occurrence, but scrofulous inflammation of the lungs is then also not unfrequently noticed. In the consumption of young persons we most commonly meet with tubercles on examination after death, but in old people tubercles are seldom found, and in dissections of those who die of phthisis at an advanced age, we generally observe ulceration, abscesses, fistulous communications, and consolidation of various parts, with quantities of scrofulous pus. Such was the case of the man who died here some time since, in whom the ravages committed by scrofulous ulceration were very extensive, but there was not a vestige of tubercle. This form of phthisis is also frequently noticed in persons of middle age, who have lived intemperately and weakened the system by dissolute courses.

I wish to make some additional observations now on the phthisical habit, and the circumstances which increase the liability to consumption. There are many circumstances which tend to the development of phthisis through the medium of their influence on the constitution. In the first place, persons who have had debilitating and protracted fevers, particularly if there be any affection of the lungs, are very apt to fall into what has been termed galloping consumption, after the subsidence of the fever. In the next place, you will often find symptoms of phthisis coming on in females of a weakly habit when they attempt to nurse. In many females, of delicate constitution, you are aware that the progress of consumption is checked by utero-gestation; as soon as the female becomes pregnant, the phthisical symptoms disappear; but when she begins to nurse, they return again in an aggravated form. When such persons begin to nurse, you should watch the effect of this new drain on the constitution; you should observe whether their strength diminishes; and if you find them becoming pale, thin, and emaciated, you should make them give up nursing, particularly if there be any thing phthisical in their habits. Among the male sex, nothing more frequently produces phthisis than syphilis and the abuse of mercury. There is no receipt more infallible than this for producing consumption. Take a young man, even with an excellent constitution, who is labouring under syphilis, shut him up in a close room, dose him with mercury, put him on low diet, and prevent him from the enjoyment of fresh air, wholesome exercise, and enlivening conversation, and you will certainly make him phthisical, if this process be often repeated. Other diseases, such as diabetes, cancer, diarrhœa, insanity, hypochondriasis, and hysteria, have also a tendency to bring on consumption. If you consult Laennec, you will find, enumerated among its causes, mental anxiety, depression of spirits, and such diseases will frequently lay the foundation for phthisis. In speaking of some of the religious orders in France, particularly those to which females are attached, he says, that it is to be lamented, that they were so unreasonable in their mode of life; for the confinement, want of recreation and exercise, which attended their mode of living, concurring with their rigid abstinence, produced consumption in a few years. You should bear those circumstances in mind, and remember that there are various causes which tend to the development of phthisis, among which you are not to forget those which operate on the system through the medium of the mind. Analogous to this is that ill-judged pursuit of knowledge, which we have often, with regret, observed to cut short the earthly career of the industrious medical student. No matter how vigorous a young gentleman may be, he will make himself consumptive in two or three years if he chooses. Let him remain constantly in the dissecting room, or in attendance on lectures, keep his mind intently and anxiously engaged, let him snatch a hurried meal, for which he has no appetite, take no exercise, and abridge his natural portion of sleep, he will quickly bring on that state of constitution, in which the consumptive tendency so commonly appears. By pursuing this course of life, many young men fall victims to phthisis at an early age, and give melancholy proofs of the power of a combination of mental and physical causes in producing this disease.

You will ask me what is to be done, in order to avert this phthisical tendency? It was formerly thought, that consumption arose from inflammation of the lung, and, on this erroneous reasoning, was founded its preventive treatment; the patient was confined to his room, and kept in an equable temperature, wrapped up in flannel. I well remember this mode. If a family lost one of its members by consumption, these were the means employed to avert its occurrence in those who remained. This absurd mode was followed with rigorous exactness, and the constitutions of the survivors were so debilitated thereby, that they became similarly affected, and in time the whole were swept away. All these precautionary measures generally tend to the same purpose, to make the constitution delicate, and consequently more liable to the inroads of phthisis. A rational physician will endeavour to prevent its occurrence, not by confining his patient and wrapping him in flannel, but by hardening him against cold. Any one, who wraps himself up and confines himself within doors, takes cold in ten-fold proportion to the person who dispenses with superfluous covering, washes his chest with cold water, and rises early in the morning. Habits such as these, with a good, nutritious, but not stimulating diet, and exercise, are the best preventives of phthisis. Make your patient lay aside slops and tea; let him take wholesome fresh meat, bread, and good beer; let him rise early and breakfast early, let him dine also early; when the weather permits, make him be in the open air for four or five hours, taking exercise on a jaunting car, or on the top of a coach. The good diet will invigorate the system, and, so far from producing inflammation, will do exactly the contrary. No superfluous muffling should be used, nor would I recommend young gentlemen, who wish to avoid cold, to come to hospital in the morning with a boa round their necks. Exercise should also be taken on an open vehicle, close carriages avoided, and the patient should commence cautiously the plan recommended by Dr. Stewart of Glasgow, of washing the chest with vinegar and water, beginning with it warm, and reducing the temperature gradually until it can be used completely cold. You will have great success in preventing phthisis by following this plan. In all cases, also, where phthisis is hereditary, I would strongly recommend the insertion of issues or setons in the chest, before or after puberty, and I am of opinion, that if you happen to have an application made to you for advice, before the disease commences, you will certainly avert its occurrence by this practice. You should, however, employ this mode of treatment with due consideration; issues and setons are very unpleasant things, and you should not make your mode of prevention more powerful than necessary. The only cases in which you are authorized to have recourse to them, *as preventives*, are those in which there is a family predisposition to phthisis. I look on issues and setons as one of the most important means in the prevention, if not in the treatment, of phthisis. Their utility in diseases of the hip-joint and spine has been long acknowledged. It is the knowledge of this fact which induces me to recommend them in phthisical cases; I consider their value very great; and when I employ them, I generally recommend a nutritious diet, which is of advantage where there is an outlet for matter from the system. I never treat a case of decidedly incipient phthisis without inserting, at least, two setons under the collar-bones. The following observation, made by an intelligent medical friend, is deserving of attention. "I had inserted a seton over the left mamma, where bronchial rales, diminished respiration, and commencing crepitus, indicated advancing tubercular inflammation. These stethoscopic phenomena were much increased every time he caught cold in his chest, and he felt sensibly, by the wheezing and uneasiness in that part of his chest, that whenever he caught cold, the lung there was most engaged. The effects of the setons were such, that, in the course of three months, having contracted a severe cold, that part of the lung was comparatively free from the bronchitis." For the accuracy of this fact I can vouch.

Concerning the climate to which we may find it necessary to recommend a patient to remove, either for the prevention or alleviation of phthisis, I shall now offer a few remarks. When you enjoin a change of climate, and make persons leave the country in which they have lived from infancy, you should not send them to the same, or nearly the same, climate; the change should be to a completely opposite one. Italy, the south of France, or Madeira, are not sufficiently different. It is absurd, in my mind, to send a patient from the British islands to any part of the continent of Europe. Towns on the sea-coast of any part of it will not do; I would prefer the East or West Indies, South Carolina, or Florida, the northern states of South America, or Egypt. Many improvements in the social condition of the last named country tend to render it a desirable place of residence; and if the present enlightened pacha continue to promote the advantages which it has gained within the last few years, it will become as agreeable a place of residence as any person can desire. Moreover, Clot Bey has confirmed the statement of Savary, that in Egypt pulmonary diseases are almost entirely unknown.

I come now to speak of the treatment of phthisis itself, and shall make but very few observations on this subject, for you will find the history of its general symptoms, stethoscopic phenomena, and method of treatment, amply detailed in books. With regard to the cough, I may remark, that in the first stages of this disease it presents great varieties, being generally, in the commencement, baffling, and consequently scarcely noticed either by the patient or his friends. In some it precedes

in others it follows, a notable degree of emaciation and debility; and it is worthy of notice, that it is not unusual for the patient to complain of increased perspiration at night, long before the pulse is at all accelerated, long before the symptoms of hectic fever have commenced. These night-sweats are, at this period of the disease, the result of that debility, to whose presence the subsequent development of phthisis itself is mainly owing. At a subsequent period, the sweats are increased by the hectic fever, whose paroxysms end in cutaneous perspiration. Still, however, the original debility yet aids in their production, a fact which, in the treatment of this disease, should be borne in mind, for it may be considered as always proper to check this tendency to perspiration in phthisis, particularly in its commencement, for it uselessly debilitates the patient, and renders him much more liable to cold. Hence, when a patient applies to me, complaining of some debility, and a slight degree of emaciation, and fading of healthy appearance; if he has had a slight, but by no means troublesome, cough for several weeks—a cough, indeed, which he scarcely observes himself, but which excites the fear of some anxious friend; if, in addition to this, he sweats rather more than usual at night, then, although his pulse be quite tranquil, although there exists no trace of hectic fever, yet I immediately direct my treatment with a view of checking this tendency to night perspiration, as well as the other more prominent symptoms. To such persons I generally recommend some such draught as the following, to be taken three times a-day:

℞. Infusi cascarillæ, ℥vij;
Sulphatis quininæ, gr. ss.;
Acid sulphurici dilut. gt. xv.;
Tincturæ hyosciami, ℥ss.

These draughts, together with constant gestation in the open air for an hour and a half at a time, and several times a-day, with nutritious diet—meat, bread, and beer, for breakfast, meat for luncheon, and a dinner, with one or two glasses of wine, and no tea in the evening, will soon check the perspirations, diminish the cough, and rapidly recall the patient's strength and vigour. Many German physicians have an aphorism, that sulphuric acid tends to increase pectoral affections. So it occasionally does; but given, combined with hyosciamus, as above recommended, its beneficial action, in giving strength and tone to the constitution, soon enables the patient to shake off the cough.

In the month of January last, I recommended this prescription and general treatment to the eldest son of a gentleman of rank. His state was exactly what I have above described, and several of his mother's family had died of consumption. In a few days, his mother-in-law called at my house, and, in the course of our conversation, it became clear that she entertained very strong prejudices against the treatment I had recommended. Such persons, gentlemen, are all well acquainted with sulphate of quinine; ladies of fashion use it constantly to wind themselves up, when reduced to a little below par, by dissipation and late hours. What use could sulphate of quinine be to a cough? Might he not catch fresh cold from driving out at this season? Would not the meat diet tend to increase the pectoral affection? Luckily for me, this lady lived at the time in a country house, the nearest place to which had, many years ago, been the residence of one of our richest merchants, a gentleman with a very numerous family, eleven of whom have since died of consumption. My answer to the lady, therefore, was obvious. I replied, to prevent consumption, or remove its first stages in that family, the most eminent physicians recommended a certain regimen and mode of treatment. They were anxiously confined within doors during winter, kept wrapt up in flannel in rooms maintained at a *Madeira* temperature, were not allowed animal food, and were bled to the amount of a few ounces at each accession of fresh cold. You, yourself, know the result, madam:—they all fell victims to the complaint, and appeared to droop more rapidly in consequence of the treatment. I am pursuing, in the case of your son-in-law, an opposite course. She was satisfied, and the young man is now strong and healthy. In spring, 1832, I was consulted by a young barrister who was affected in nearly the same manner, but, in addition, had a hoarseness and much more violent cough, and was more emaciated. The same regimen; the same medicines; the solution of nitrate of silver applied to the tonsils and pharynx; early hours; removal to Bray, and driving through the open air twenty miles a-day, restored him to health. Being now aware of what injures him, he avoids everything debilitating, never neglects exercise, and is now strong and able to pursue his professional avocations. Again let me repeat it, that if the disease be at all more advanced than it was in these two cases, I immediately insert one or two setons over the most suspected part of the lungs. When the preparations of hyosciamus are well made and good, they are extremely useful, and, like digitalis, exert a retarding influence over the pulse when it is accelerated.

When the pectoral symptoms are accompanied with evident fever and an accelerated pulse, I generally combine these two substances as in the following formula:

℞. Sulphatis quininæ gr. jss;
Acid. sulphur. dilut. ℥j;
Tincturæ digitalis gt. xx;
——— hyosciami ℥j;
Syrupi papav. albi ℥ss;
Aqua fontanæ ℥iv;

Fiat mistura, sumat. cochl. j. amplum 2a. q. q. horâ.

As the disease advances, the difficulty of producing a favourable result increases in ten-

fold proportion; and I do not think that I can offer any remarks upon its treatment or mitigation, which you will not find detailed in the various treatises on this disease lately published.

But, before I conclude, let me impress on you strongly the necessity of never abandoning cases of consumption as hopeless; for I have known several apparently desperate cases cured, even when puriform matter had been expectorated, and cavities existed. In a preceding part of this lecture, I have stated that the premonitory cough of phthisis is generally trifling, and scarcely attracts the notice of the patient himself. This, however, is not always the case. Thus, the lamented Mr. Wolf, the author of the celebrated stanzas on the death of General Moore, had, for a year before emaciation and hectic commenced, a frequently repeated, single cough, exceedingly loud, ringing a metallic—in fact, a *tussis firma:* during this time his pulse was natural and his breathing tranquil. Nothing that the ingenuity of Dr. Cheyne could suggest was of the least service in allaying the violence of this cough: nothing softened it, until it passed into the usual cough of true consumption, and then we too truly anticipated the loss Mr. Wolf's friends must prepare themselves to sustain. I lately attended a young lady in Dorset-street, for whom my advice was requested by my friend Dr. Shekleton; she had exactly the same hard, loud, perfectly dry cough, which I have described, and which continued morning, noon, and night, at least at the rate of a cough every half minute. We bled her, gave large doses of tartar emetic, &c. &c., and applied blisters, but without producing the least abatement of this distressing, never-ceasing cough, and finally I took my leave. In a month afterwards she was recommended to take a dose of castor oil and spirit of turpentine, for the purpose of relieving a flatulent distention of the bowels. The evacuation of a very large tape-worm was the consequence, after which the cough at once ceased. Tape-worm, gentlemen, is a much more common disease in Dublin than is generally suspected; I meet every year many cases of disease caused by its presence.

I have seen a *tussis firma*, such as I have described, perfectly dry, uninterrupted except during sleep, and very harassing in young ladies shortly after the age of puberty, and in whom the menstrual evacuation was scanty and irregular. In such cases the stethoscope discovers sound lungs; a full breath can be drawn; and during sleep the respiration is not hurried. The tonic treatment consisting of large doses of carbonate of iron; the occasional exhibition of spirit of turpentine, repeated for several days so as to act on the bowels, and given in as large quantities as can be borne,—these medicines, I say, combined with active exercise, the occasional use of aloetic purgatives, and finally the exhibition of tincture of cantharides, compound tincture of bark, and camphorated tincture of opium, according to the formula I have given for the cure of hooping cough in the Dublin Medical Journal, will succeed in removing the disease. This mode of treating this species of cough is quite new, and suggested itself to me after all the usual remedies had failed. Dr. Nalty, of Clare-street, witnessed a case of this nature which yielded to these remedies, and which had baffled the most judicious exertions of several eminent practitioners in the country.

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

At St. Thomas's Hospital, Session 1833.

Rheumatismus — Diseased Heart — Bellows Sound: Diagnosis of—Phthisis—Inutility of the Inhalation of Medicated Gases — Chronic Inflammation of the Brain — Varicella—Bronchitis Chronica—Use of Lobelia Inflata — Colonitis — Hypochondriasis.

Gentlemen,—In consequence of a *post mortem* examination last Monday, I was prevented from lecturing; therefore I shall first speak of those patients whom I presented the week before last. Nine patients were discharged from the hospital, seven males and two females. Among the men, two were cases of rheumatism, the chronic form of the disease taking on a subacute character. One had been ill six months, the other two; neither case presented any thing remarkable; they both came in on the same day, Jan. 31st, into Luke's Ward, and both went out well on the 14th of this month, just a fortnight after admission. Both were treated with colchicum; and, in one case, bleeding to a pint, and a blister to the knee, was had recourse to; the other only took colchicum, and used the warm bath.

Three others were also presented from the same ward. First, Henry Light, aged 22, a servant, was admitted Dec. 28th, suffering under disease of the heart, chronic bronchitis, some effusion in the chest, and slight œdema of the ankles. Stated that he had always, from infancy, been subject to palpitation; indeed, had never been quite free from it; but, within the last year, it had so much increased, that he has not been able to do any work; that, in August last, he was suffering under the same symptoms as now, and came to the hospital, under Dr. Elliotson; remained in until the latter end of Oct., or beginning of Nov., and went out much relieved; but having caught cold immediately after quitting the hospital, had been becoming worse ever since.

His symptoms were violent palpitation of the heart, great dyspnœa, constant cough, with but little expectoration; lies best upon his back, his shoulders requiring to be con-

siderably raised, from feeling a sense of suffocation; countenance anxious; lips livid. About a fortnight before he came in, he stated that he had severe cutting pain in the left side. Nights very restless, unable to sleep; appetite was bad; tongue rather foul; bowels open; urine scanty; pulse at wrist scarcely perceptible, 126, irregular and intermittent. On listening to the chest, the respiration was sonorous, with slight mucous rattle over the upper part, but was not heard at the inferior part on either side, and, on percussion, the sound was dull there. There was considerable pain, on pressure, between the intercostal spaces over the region of the heart, which was found beating over a larger space than natural. The impulse of the left ventricle was very strong, and heard over a great portion of the chest; and immediately after each systole of the ventricle, a loud bellows sound was heard. Had considerable pain at the scrobiculis cordis, and the epigastrium was tense and tumid; the bellows sound, too, was quite audible there, and, for a few days, nearly as far down as the umbilicus.

From these symptoms, then, it was evident that he had hypertrophy of the left ventricle; and, from the degree of force with which the heart struck against the ribs, as well as the sound not being much deadened, it was also clear that the cavity was dilated.

The bellows sound, here, arose, I have no doubt, from the aortic opening, though probably of the natural size, being disproportioned to the increased size of the cavity of the ventricle, and also from the increase of muscular power of the fibres;—by the first, a larger quantity of blood would be propelled towards the aorta; and, by the second, it would of course be propelled with greater force; and most probably there was some spasmodic action of some of the fibres of the heart. The pain, too, which he experienced occasionally in the region of the heart, and that which he felt, on pressure, between the intercostal spaces, showed there was some chronic inflammation of the pericardium. The cough and sonorous state of respiration informed us that there was bronchitis; while the dulness of sound, on percussion, over the lateral inferior parts of the chest, together with the absence of the respiratory murmur there, denoted effusion into the pleura.

Now, the treatment consisted in the local abstraction of blood over the heart by means of cupping glasses and leeches, as long as there was any pain on pressure; and also counter irritation by blister, with a perseverance in the use of diuretics, viz. digitalis, squills, spirits of nitric æther, and acetate of potass, combined. By these means he lost the pain; the pulse became slower, fuller, and less irregular: its stroke, then, being just what we find in hypertrophy with dilatation. The kidneys secreted a large quantity of urine, and as they did so, the effusion entirely vanished from the chest, respiration being heard naturally at the lowest point on either side. He lost his cough and dyspnœa, and could lie flat on his bed in any position. The impulse of the heart was greatly diminished, and the bellows sound was no longer heard, unless occasionally for a few seconds when much excited by any thing. He was able to run without difficulty of breathing; and one day when I was at the hospital, I requested him to run quickly up and down the ward, after which I applied the stethoscope to the region of the heart, and found the bellows sound was for a few seconds reproduced, but, on his remaining quiet for a few minutes, it vanished again; the increased excitement in running having rendered the action of the fibres of the heart more violent for a short time. He expressed himself as being quite well, or better, even, than when he quitted the hospital before; and, being anxious to get employment, went out on the 14th. Still there is organic disease; and I have not the slightest doubt but that the symptoms will return if exposed to cold or intemperance.

This case, however, shows how much may be done even where organic disease of the heart does exist. I was perfectly satisfied that there was effusion into the cavity of the chest, though I could not discover ægophony, because, as I said before, there was a dull sound on percussion, when admitted, and no respiratory murmur heard at the inferior lateral portions of the chest; but, at the expiration of a short period, resonance became natural in these parts, on percussion, and respiration could be distinctly heard. As he stated to me at the time of his admission, that he had been under Dr. Elliotson's care in the hospital, I examined the Doctor's book, and found it stated that there was then a double bellows sound, the second sound following immediately after the first, and which must, then, I conclude, have arisen from some temporary imperfection of the aortic valves, causing regurgitation of a portion of the blood after each systole of the ventricle; it could, however, have been only a temporary imperfection of the valve, but while under my care there never was any double bellows sound.

There was a case of phthisis, too, discharged, in which I am quite certain there were cavities in the lungs, although I never could detect perfect pectoriloquy. George Young, a ship carpenter, said he had only been ill two months; the symptoms were emaciation, cough, purulent expectoration, mixed with small portions of cheesy or curdy-like substance, nails slightly incurvated, fingers a little clubbed, occasional hectic fever towards the afternoon, pulse of a morning often tranquil, and about 80 when in bed, though in the afternoon varying from 100 to 120; by percussion a dull sound was elicited under the clavicles and inferior part of the right side of the chest. I intended to have kept him in until there was confirmed pectoriloquy, but he expressed a wish to go out, and as I was

satisfied I could do him no good, acceded to his wish; he said he felt better. I had been giving him one drachm of the wine of tartarized antimony every four hours, and ten grains of the compound powder of ipecacuanha every night.

Now, in order to have perfect pectoriloquy, there must be a due proportion between the size of the cavity and that of the bronchial tube by which the voice is transmitted to the cavity; without this proportion, even though the cavity be very large, pectoriloquy may not be discovered. Again, if the cavity be very large, yet if it be very superficial, and its anterior wall very thin, being nothing more, perhaps, than the serous covering of the lungs, the wall, from its thinness, being a bad conductor of sound, under such circumstances we may be unable to detect pectoriloquy. I was sure, however, that there was no large cavity of this description in the present case, because there was no cavernous sound on respiration, as of the air rushing into a large hollow space, no gurgling sound, and the resonance on percussion was too dull to admit of the possibility of there being any large superficial cavity. Immediately under the centre of each clavicle, however, imperfect pectoriloquy was distinctly heard, that is, the voice was heard resounding at that point of the chest immediately under the stethoscope, resounding and reverberating, but not traversing the tube; the tone of the voice rendered sharp and cracked; now this is often produced by a cluster of small cavities, situated close together, and from the dulness on percussion immediately over these parts. I have no doubt that that was the condition of the lungs in the present case. The same sound is produced by dilated bronchial tubes; but there is no large bronchial tube in this portion of the lungs, and the dulness on percussion showed that it could not arise from that cause.

Now, some of you, perhaps, who have read of the marvellous effects of the inhalation of various medicated airs, may feel surprised that I did not employ an agent of this kind; but, in truth, I have tried them so often, and have seen them tried so frequently, without the slightest permanent advantage, that I now never think of resorting to them. I have tried the vapour of iodine alone, or combined with that of conium, hyosciamus, or opium, chlorine, tannin, tar, &c., and each, while the novelty of the thing has not worn off, has in many instances appeared to be beneficial, but have invariably found the disease run its fatal course quite as quickly as though none of these had been used.

In some cases of chronic inflammation of the bronchial membrane of an atonic character, I have found inhalation of chlorine of decided use; and I have also found the inhalation of narcotic vapours, especially opium and stramonium, occasionally useful in spasmodic asthma. Some years ago, the vapour of tar was said to be infallible in phthisis, and to this I gave a fair trial at St. Pancras Infirmary. I placed four patients in different stages of phthisis in a small Ward, where they constantly breathed an atmosphere impregnated with the vapour of tar, and they, as well as others similarly treated, died quite as soon as I believe they would have done without the tar vapour. The only disease in which I have found the vapour of tar beneficial, has been the latter stage of hooping cough, when the expectoration has been difficult, and there has been no tendency to inflammation. It has appeared in such cases to lessen the frequency of the paroxysms, and to facilitate the expectoration of the viscid mucus. Caution, however, is always necessary in the use of pertussis, for if there is the slightest tendency to inflammation, it will rarely fail to augment it.

There was also a man went out from the same ward, who, when admitted, was suffering under chronic inflammation of the brain. Richard Bundock, aged 36, a ship caulker, was admitted January 3d; had been ill three months, suffering from a constant dull aching pain in the forehead and temples, extending to the occiput; had occasional vertigo, especially on stooping: rarely could sleep, and when he did, dreams frightfully; his vision was impaired; the pupils, however, though sluggish, obeyed the stimulus of light; his memory had become bad; appeared heavy, dull, and dejected, and his spirits were much depressed; complained of an uneasy sensation in his neck, if he held his head up (feeling as though his neck was broken), and was most comfortable when he slightly stooped it forward; there was great coldness of feet; appetite good, and not oppressed by food; tongue white and dry; bowels confined; pulse 100, small, but rather sharp. He had latterly become much thinner; countenance sallow; there was increased heat of head, particularly of the forehead, and he complained of some degree of soreness of the scalp about the occiput. Now, notwithstanding the slight soreness of the scalp, from the nature of the pain, from the diminished vision, the imperfect memory, and the vertigo, there could be no doubt but this case was one of chronic inflammation of the brain, or its membranes, or both: the soreness of the scalp might have led me to imagine it an external affection, but when I considered the other symptoms, and the absence of any pain extending down the face, I was satisfied of its nature, and wrote on the ticket, "cephalalgia inflammatoria," which is, in fact, a lesser degree of phrenitis. You will find some soreness of the scalp by no means an unfrequent accompaniment of inflammation of the brain or its membranes.

Well, the treatment was that which you have seen me frequently use with success in similar cases. His head was shaved, and cold lotion kept constantly applied. He was cupped, in the first instance, to a pound from behind the mastoid processes, and afterwards

leeches were daily applied, so long as there was pain, giddiness, or increased heat, and five grains of the hydrargyrum cum creta, combined with five grains of the tartarized antimony, were given every six hours, with house physic occasionally to keep the bowels freely open, and was put upon spare diet. Counter-irritation, by blisters and the unguentum antimonii tartarizati was had recourse to. His mouth became slightly affected; the mercury was then diminished, and only repeated in such doses as were sufficient to maintain its influence on the system. The pain of the head was much relieved by the cupping; and by steadily persevering in this treatment, it wholly ceased; had no vertigo, his vision quite restored; memory became perfect; lost the coldness of the feet; slept well and tranquilly; his countenance in a great measure lost its sallowness, and he appeared lively and happy; feeling himself so well, he was anxious to return to his family, though against my advice, and discharged himself on the 14th of this month.

Before I speak of any more of the cases that were discharged, I wish to call your attention to one which is still in the hospital, and which I dare to say you all remember. It is that of William Jones, aged sixteen, a sailor-boy, who was admitted into Luke's Ward on the 8th of this month. The account he gave of himself, when he came in (as I see by the book), was that he had been ill two days, that, after long exposure to cold and want in the streets, he was suddenly seized with shivering and headache, followed by heat, pain in the back and loins, with loss of appetite. When admitted, he complained of great head-ache, with a feeling of coldness, and pain of the back and legs; he had some pain on pressure about the umbilicus and the ascending colon: tongue white; the papillæ prominent; no desire for food; some thirst; bowels open; pulse 128, small, but bore some pressure; his head was hot; and he appeared dull and stupid; a few small vesicles had appeared about his hands and wrists.

The apothecary saw him, ordered his head to be shaved, cold lotion to be applied, and a purgative of calomel and rhubarb.

On the next day, Saturday, I first saw him, and the report was, that he had been delirious during the night, but he was then tranquil; the bowels had been freely open by the purgative; the stools dark-coloured and offensive; complained of some pain in the head, and it was hot; there was considerable heat of skin; and he complained of much pain when pressed upon the epigastrium; the tongue was white in the centre, but red at the edges and point; pulse 116, small, but bearing pressure. I ordered the cold lotion to be continued; twenty leeches to be applied to the temples; a blister to the epigastrium; and, as the stools were dark, three grains of the hydrargyrum cum creta three times a day.

The sister cautioned me as to touching him, as he had got the itch, she feared; but it was nothing more than a few vesicles of eczema about the wrists and hands.

On Monday the 11th, the next day but one, I was informed that an eruption had that morning first begun to appear on the breast and back, and subsequently on the face. On examining him, I found a small number of vesicles, of different sizes, already filled with a transparent lymph, and surrounded by an irregularly circular, or rather oblong, hard inflamed margin, or base; some of the vesicles, although they had only begun to appear in the morning, were already of considerable size, were plump or acuminated, and without any central depression: there were some few beginning to appear on the face, they felt rather hard, and like millet seeds, but did not possess that horn-like feel which characterizes variola in the same stage. Though he still complained of some head-ache, both that and the heat of skin were much diminished; the throat was rather sore, the tonsils red and swollen. He was unconscious himself as to whether he had ever had either small-pox or cow pox; and, upon examining the arms, although there certainly did seem to be some slight appearance of small cicatrices in each, still they were so slight as not to admit of the inference, that they arose from inoculation. In consequence, however, of the advanced state of the vesicles in the few hours from their first appearance on the breast and back, from their paucity in number, from their wanting the central depression, and from those which were now beginning to appear on the face not possessing the peculiar hardness of variola, I had no hesitation in pronouncing it varicella.

If you took the trouble of marking the progress of the disease, the diagnosis between it and variola was very clear. In varicella, especially the conoidal form, the vesicles commonly run their course in every part where the cuticle is not very dense (as in the head) in three days. On the first, they contain a transparent lymph; on the second, it is fuller and plumper, and the lymph is either whitish or straw-coloured; on the third, they shrivel and break, or if they remain to the fourth, the fluid is then puriform; the vesicles, too, continue to come out on different parts of the body; on the second, and often, as was the case here, on the third; so that we have them in every stage at the same time. If you remember, at my visit last Wednesday, the greater part of those, which had first come out on the Monday, had shrivelled and broke, leaving only small brownish-red scabs; others, which had only first appeared on the Tuesday, were plump, and the lymph straw-coloured, while some, which had appeared only on that morning, were in their first stage; some very few of the first crop still remained, but, by examining them with a lens, you would see they were beginning to pucker and shrivel, while their fluid appeared puriform. Well, then, according to this, the whole would have run their

course in six days: and, if you recollect, on my visit on Saturday, they had done so in every part except the scalp, where they appeared latest, and where, as I before observed, the thickness of the cuticle somewhat retards them; these, however, had begun to pucker, and the fluid to appear puriform.

In variola, the pustules on the legs and arms come out later than those on the head, face, and trunk, and, therefore, still remain after the others have turned; but, in this case, though some of the vesicles did not come out on the legs until Wednesday morning, they had all run their course on the Saturday. From modified small-pox, it is not certainly so easily distinguished, but still I have never seen a case of modified variola without the central depression in the early stage. In varicella, too, after the pustules have puckered and broke, there is merely a slightly elevated brownish-red scab, while, in modified small-pox, a hard elevated tubercle is felt under the scab, which remains after the crust has fallen off. In this case, the premonitory symptoms were unusually severe; sometimes indeed they are so slight as scarcely to be worth notice: it is probable, that, in this case, the deprivations he had suffered had rendered them more severe, though, in the course of my practice, it has occurred to me, three or four times, to see chicken-pox ushered in with equal severity of symptoms. With respect to the treatment of varicella, little is necessary to be done beyond keeping the bowels open, and restricting the diet. Before the eruption came out, I gave him some hydr. cum creta twice or three times, because the stools were dark-coloured, merely with the intention of correcting the secretions; but that was omitted as soon as I discovered the nature of his disease, for it was no longer necessary, the stools having become natural, and nothing further was prescribed for him, except an occasional aperient.

Now, here is an excellent plate, illustrating the different characters of the different species of varicella in Dr. Thompson's Atlas of cutaneous eruptions: the three varieties have been named the lenticular, which is the common chicken-pox; the conoidal, or swine-pox; and the globated, which, in the north, is called hives. Now, here you see *(pointing to the plate)* the three varieties in their different stages from the first day to the third, fifth, and sixth. Here is another plate, by the same author *(pointing to it)*, of modified small-pox after vaccination, exhibiting the disease in its different stages from the third to the ninth day. If you compare the two plates, you will see how strongly marked the distinction is between the two; and if you bear in mind the appearance of the disease as shown in the patient in Luke's Ward, you will see how closely it resembled the conoidal form of the disease exhibited in this plate of Dr. Thompson's, and in this also *(showing it)* of Dr. Willan.

Whether or not varicella is a disease wholly distinct from small-pox is still a question with many. It has never, I believe, been produced by inoculation, but it is certainly curious that it is never met with but when small-pox is also prevailing. Like small-pox, too, in some instances, it is capable of sometimes leaving cicatrices, or what are called pits.

With regard to the other two men who were discharged; one was a case of chronic bronchitis; the other, inflammation of the mucous membrane of the colon.

The case of bronchitis speedily yielded to cupping from between the shoulders, and a blister to the front of the chest, and keeping the bowels open. After the inflammatory symptoms had subsided,—as the cough still continued occasionally to annoy him, and as he complained of some slight dyspnœa occurring at times, and the expectoration having nearly ceased, believing it to be spasmodic,—I gave him half a drachm of the tinct. lobelia inflata, and in a few days the cough and dyspnœa ceased; of course, if any inflammation had been present, I should not have given this remedy.

I prefer giving this medicine in a small dose at first, because I have seen some very unpleasant symptoms arising from it when I have commenced with a larger dose. I remember giving it in drachm doses, about two years ago, to a patient suffering under spasmodic asthma, in St. Pancras Infirmary, and it produced such excessive vomiting—such an indescribable sensation of uneasiness at the stomach and scrobiculus cordis—such giddiness and distress of head and nervous system, that nothing could induce the patient to take it again in the same dose, although he had derived much benefit from it. I have seen the same effect produced from drachm doses in other cases, both in public and private practice, and therefore I always think it better to commence with not more than half a drachm, and gradually increase it. At the same time, it only appears to me to be beneficial in asthma, when it does produce some degree of sickness at the stomach. In pure spasmodic asthma, it certainly is a powerful remedial agent.

The case of inflammation of the mucous membrane of the large intestine occurred in a man of the age of 36, a coachman. He had been ill about five months, suffering from constant pain in the abdomen and loins, attended by great flatulence, and occasional discharge of blood and mucus from the bowel, with tormina and tenesmus occurring when the bowels acted, which they did very irregularly, the feces being costive; there was a great deal of pain caused by pressure on the cæcum, and throughout the track of the colon; latterly the stomach had become irritable; he was uneasy after food, and frequently had pyrosis, and was becoming much thinner; his tongue was morbidly red and glazed; pulse 90, natural as to force.

From the tenderness, then, which existed in the whole of the colon on making deep pressure—from the blood and mucus which he

passed from the intestine, and from the tormina, tenesmus, and emaciation, as well as the redness of the tongue, it was clear there was chronic inflammation of the lining membrane of the bowel, and which, if neglected, would be very likely to run on to hypertrophy of the submucous tissue, and ulceration. The indication then was to lessen the inflammatory condition of the bowel, and at the same time to insure the daily discharge of the feces from the canal, which, if suffered to accumulate, would in different ways tend to increase the irritation (not only acting as extraneous matter, and thus irritating the membrane, but by mechanical pressure obstructing perhaps the return of blood through the vein). To lessen the inflammation, twenty-five leeches were applied daily for the first five days, and as the tenderness still continued, twelve ounces of blood were taken from the arm, the warm-bath was ordered to be used every other day, and three drachms of castor-oil every day to keep the bowels regular, besides a mustard-poultice was applied to the abdomen to excite counter irritation.

Now, under this treatment, the pain and tenderness of the colon on pressure gradually lessened, until it entirely ceased; the stools, as the inflammation subsided, became fæculent, and no longer containing mucus or blood, and passed without either tormina or tenesmus; —as far, then, as regarded the affection of the bowel, he was well, but the irritable stomach still remained. He complained of cardialgia, and still also occasionally of pyrosis; to relieve this, he took half a drachm of the carbonate of soda, with two minims of hydrocyanic acid, three times a-day, which had the effect of lessening the irritation of the stomach, and relieving the water brash. As he was still, however, oppressed by his food, and complained of flatulence, the soda and hydrocyanic acid were then given in some infusion of cascarilla bark, instead of water; and as the motions were dark coloured, I gave him five grains of the blue pill every other night. After persevering in this plan for a little more than a fortnight, all the symptoms disappeared, except the flatulence; his appetite was good; slept well; his bowels became regular, and the secretions healthy, and he was gaining flesh, and was discharged on the 13th of the present month quite well, though for some time he had great tendency to hypochondriasis.

Now, this case shows the great advantage of local depletion, when steadily persevered in, in chronic inflammation of the mucous membrane of the alimentary canal conjointly with counter-irritation. With the exception of the warm-bath, no other remedial agent was used but the castor-oil, so long as there was the slightest proof of the existence of any inflammation of the mucous membrane of the intestines. I selected the castor-oil as being the least irritating purgative I could employ. Could I have sufficiently emptied the bowels by means of clysters, I would not even have employed the castor-oil. But injections alone cannot always be depended upon for this purpose, and I am satisfied that the disease would have been aggravated by mercurial purgatives, or mercury in any form given internally, though you will observe, that after all inflammation had subsided, leaving nothing but a dyspeptic state of stomach, with a deficiency of bile in the stools, that I did not then hesitate to give blue pill every other night, for the purpose of acting on the secretions, which intention was fulfilled by it; but, if the slightest inflammation had existed, I certainly should not have given it. The time, gentlemen, will not allow me to proceed further to-day, so I must defer the other cases until our next meeting.

A CASE OF EXTENSIVE SCABBY ULCERATIONS, CURED BY VACCINATION.

Communicated to the Royal Jennerian Society, and London Vaccine Institution, by Dr. Muniz of Buenos Ayres.

JUAN PEDRO, the child of Pedro Toledo and of Anna Maria Escobar, poor country labourers, seven years old, of a remarkably bilious temperament, suffered severely, from his third year, from extensive scabby ulcerations, perceptible on the head, the greater part of the forehead, the cheeks, the ears, the neck, and the upper part of the body. This cutaneous malady had triumphed over all the remedial measures employed on various and distinct occasions.

Juan Pedro was vaccinated for the first time on the 12th of January, 1830, without success. In the same month, a second attempt was made; and, between this period and the 3d of April, seven more unsuccessful attempts took place. The vaccination, however, performed on the third of April, produced three vaccine tumours on the right arm, and two on the left. Three additional insertions were made on the left side of the neck, the scabs at this place being larger, more numerous, and connected, attended with deep and extensive ulcers, like those of the head.

I now notice the *progress of the vaccination.* The third day of the customary symptoms, the primitive infection manifested itself with an

energy widely different from what is usual. On the afternoon of the fourth day, the heat and the itching, which had manifested themselves the day previous, were greatly augmented, and the vaccine vesicles were sensibly elevated.

On the fifth day, a vivid elevation, accompanied with severe itching, and a mordant heat, at and around the incisions, violent internal cramps, and a severe pain at the stomach, associated with febrile symptoms, and a violent irritation of the axillary and jugular glands, marked the progress of the vaccination.

On the sixth day, a transparent fluid distended the vesicles very considerably.

On the seventh and eighth days, frequent horripilations, head-ache, severe soreness of the limbs, and violent general convulsions were present.

On the morning of the ninth day, these symptoms were relieved by two copious vomitings, and a most profuse perspiration; the latter of which was attended with a peculiarly beneficial effect.

The tenth day brought comparative serenity, the patient being almost freed from his previous sufferings. At this time the vaccinal elevations had taken their full effect, and, on the twelfth day, acquired a perfect maturation.

At the fifteenth day, the form of the pustules was well marked. On the 18th, all the crusts presented the appropriate characters. On the 24th to the 26th, they unfastened, leaving in the places of their implantation, deep and unequal cicatrical impressions.

Having thus noticed the progress of the vaccination, I proceed to point out the *anomalies* this case offers.

The first circumstance to be noticed is the *early* development of the vaccine influence, being evident on the second day.

The second circumstance was the *violence* of the feverish symptoms, increasing from the fourth day; and, in connexion therewith, the extent of the inflamed parts, namely, to four or five inches around the incisions, the margins of the vesicles themselves being extremely irregular and prominent.

An additional singularity was the *elevation* of the vesicles from four to five lines, their *diameter* being from seven to eight; added to which the abundant suppuration, which continued uninterruptedly for some days without degenerating, although the surface was frequently removed. The humour inclined to a muddy yellow, which continued to flow from some of the pustules at the circumference, even when the centres had already commenced drying and healing.

The results of the vaccination on the child.—The humour, which came from the scabby ulceration, the first day of the insertion of the vaccine virus, was transparent and rose-coloured; the ulcerated surfaces, when exposed, being viscous, blood-shot, and indolent. The skin around was remarkable for its tenuity and its wrinkled appearance, the patient being afflicted with extreme marasmus.

At the fourth day, the ulcerated parts commenced swelling, attended with severe pain, burning, and itching, the secretion, at the same time, assuming a natural character. The matter that escaped was glutinous, very abundant, and of a most disagreeable smell. The skin around and at the ulcerated parts, besides being swollen, assumed an erysipelatous character; the cervical glands, on the side on which the incisions were made, were tumid, and considerably softened; the scabs unequal, full of fissures, hard, and presenting a surface moist at the edges and soon uniting, and, after the union, appearing lustrous.

In proportion as the inflammation produced by the vaccination decreased, the irritation connected with the ulcers was augmented; the matter discharged at this time having assumed the consistence of syrup, exhaling also a fetor almost insupportable. The quantity increased daily until the fourteenth day inclusive; that is, dating

from the time of the first effectual vaccination of the individual. On the twenty-fifth day after the insertion of the vaccine virus, the suppuration, from the ulcerated surfaces and the fetor, gradually decreased for nine days, the discharge at the last becoming serous, abundant, and continuing till the thirty-fourth day.

The scabs then commenced unfastening, leaving the invalid with ease. Some old standing and numerous eruptions on the inside of the mouth entirely disappeared. On the fiftieth day, the ulcers were perfectly cicatrized, and now there is not a single scab to be seen. The invalid was at this period much molested with an inflammation of the ureters, which terminated in an abundant secretion of urine, orange-coloured, with a heavy sediment, very speedily assuming the lateritious colour.

This state of the urinary organs was accompanied with a severe catarrh, continuing till the 12th of June. Henceforward all the more trivial disorders disappeared; and the child, Juan Pedro, that, seventy days before, was in a most deplorable state of emaciation and of disease, covered with more than one hundred scabs of a most disagreeable aspect, attended with a most disgusting ulceration, now commenced recovering. The skin, by this time, had become perfectly sound, though unequal in some parts, and of various colours. The eyes, also, which, a few days before, were moist, languid, and almost closed, like those of a statue, now acquired their natural mobility and brilliance.

The melancholy aspect of a face, disfigured, wrinkled, and cadaverous, had disappeared; now presenting to the view the colour of health. The whole physiognomy, the action of the limbs, and the regularity of the functions, showed, as it were, the influence of a new and vigorous vital principle.

Finally, at the end of *ninety-six* days, the strength and the powers of the child were fully expanded; the appetite, the digestion, the increased fatness, &c., demonstrated the happy re-establishment; affording a striking instance of the superior power of vaccination in imparting to the system such a shock as to destroy the processes of disease, which had resisted all previous modes of treatment.

The augmentation of the secretions from the ulcerated surfaces by the vaccinal fever, is particularly worthy of notice, indicating an excess of vital power being directed to them, necessary to produce a healthy secretion; illustrating, along with the other facts, the old and celebrated aphorism, "Febris sæpe sanationis optuna causa."

FRANCISCO FARRER MUNIZ.

Reports of Societies.

GEOLOGICAL SOCIETY OF DUBLIN.

March 13th, 1833.

Mr. Griffith in the Chair.—The Secretary read a paper by Captain Portlock "on the identification of strata," in which allusion was made to the observations of M. Dufrénoy, on the southern slope of the Pyrenees, and to the great chalk basin in the north of Ireland. Dr. Apjohn exhibited to the Society some curious specimens of silicified wood from New South Wales, and explained the chemical conditions of their formation. He displayed that consummate knowledge of chemistry, which has justly obtained for him the honourable distinction of ranking among the first chemists of the day.

ROYAL COLLEGE OF PHYSICIANS.

March 25, 1833.

Sir Henry Halford, Bart. in the Chair.—A short paper was read by Dr. Badham on the progress of medicine. The meeting was very thinly attended, and few of the Licentiates sneaked into the assembly. We are extremely glad of this, as it shows the feelings of that body towards their masters. If the Licentiates were not a rope of

sand, they would have long since shaken off the illegal degradation to which they have so long submitted. Were they united, and to petition a reformed parliament, their grievances would be speedily redresed. Some of them hope to be elected Fellows whenever it shall please the perpetual president of the college; and these of course are silent. The majority care little about the college, and therefore are supine; but while the Fellows and Licentiates are at war, the surgeons and the apothecaries have entrenched so closely upon them, that many begin to think their extinction is near at hand. It must be admitted by every well-informed member of the faculty, that the Royal College of Physicians is the most narrow and corrupt corporation in the kingdom, and is solely responsible for all the abuses, anomalies, and defects in the profession throughout the united empire. Nevertheless, this body will hear of no reform, and stands still while every other medical corporation in the country is making changes suited to the age in which we live. To show the respect entertained in London for the College, we have to state that it was only last week the institution was abused by one of the aldermen, as an antiquated, narrow corporation, only calculated for the time of Henry VIII., when it was founded; and the city Mr. Justice Shallow absolutely ridiculed a member of the college for admitting that he belonged to the institution. Notwithstanding this, and a thousand other reproofs of a similar description, the College laws are as unchangeable as those of the Medes and Persians. No reform, we repeat, is intended in this Institution, because it does not come under the cognizance of Parliament as a corporation. Let it continue in its present state for twenty years longer, and the class of medical men called physicians will be extinct in England.

MEDICO-BOTANICAL SOCIETY.

March 26th, 1833.

Dr. Ryan in the Chair.—The minutes of the last meeting were read and confirmed, when several presents, from foreign members, were announced. The Chairman then informed the meeting, that Dr. Clendenning, the Professor of Toxicology to the Society, would deliver a lecture on poisoning by oxalic acid, with the tests and best mode of treatment.

The learned Professor then delivered his lecture, in which he enumerated the various vegetables that contained oxalic acid, the various effects of the poison, the antidotes and mode of treatment, and finally the tests. We regret that we have no room for the details at present, but hope to insert them at an early day.

The Chairman then announced, that, at the next meeting of the society, which would be on the 23d of April, he would have the honour of delivering a lecture on the various medicines added to the materia medica during the present century.

The meeting then adjourned.

UNIVERSITY OF DUBLIN.—NEW MEDICAL REGULATIONS.

That after Nov. 1, 1834, all canditates for the degree of M.B. shall, in addition to the qualifications already required, produce a certificate of having attended the course of lectures delivered by the professor of midwifery in the Royal College of Physicians; and that after the same date, credit will not be allowed to students for attendance on more than three medical courses in one and the same year.

We are rejoiced to notice "the Silent Sister" setting such a good example to Oxford, Cambridge, and the London College of Physicians, which these antiquated institutions are certain to despise, glorying in the venerable privilege of remaining in *statu quo*.

THE
London Medical & Surgical Journal.
Saturday, March 30, 1833.

REFORM IN THE MEDICAL PROFESSION.

Our announcement of the intentions of the Royal College of Surgeons on the subject of reform, has excited the surprise and approbation of many of our correspondents, and the intended changes have been generally applauded by the profession. All hail the appointment of an Obstetric Board as a national benefit, and fairly admit that the intentions of the College eminently deserve the unanimous approval of the profession. It is almost premature to comment upon the proposed reform at present; because it is only in embryo, and has some staunch opponents: some parts of it are beset with difficulties. Thus, it is considered no easy task to appoint a Board of Examiners in Obstetricy, as none of the examiners or council of the College can, consistently with the by-laws, undertake the duties of that office; and, therefore, the members of the board must be selected from other sources. It is contended that the new examiners ought to be selected from the members of the College generally; but here is another difficulty, as those who practise pharmacy are ineligible according to the spirit of the by-laws; and moreover, there is but one consulting surgeon in town a lecturer on midwifery. It is maintained on the other side, that physicians who are, or have been, members of the college, and are now teachers of obstetrics, ought to be selected, after the example of Apothecaries' Hall, as in the case of Dr. Merriman. This proposal is likely to be adopted, but still there is an objection to it, because it will be considered unfair to select lecturers, as most students will enter to them as examiners, and more especially should they belong to the great public schools. Again, it would be absurd to appoint examiners who were not teachers.

It would be manifestly unjust to appoint the obstetric lecturers of the large medical schools as midwifery examiners; as this step could not fail to injure those of the private ones; and therefore such a proceeding cannot be adopted. We should suggest the propriety of electing the Midwifery Board by concours, or public competition, or in consequence of personal labours in that department of medicine. It is rumoured that an attempt will be made, by some of the examiners and council, to fill up the appointments by jobbing, or, in other words, to smuggle in those who lecture on obstetricy in their own schools or hospitals. It is to be hoped that partiality or favoritism will not be allowed to prevail, and that the managers of the College will act, on this occasion, in accordance with the spirit of the times. It is said, that among the intended changes, students will be examined in Greek and Latin; but this must not be an *ex post facto* law, like that of the Apothecaries' Hall. A knowledge of the learned languages is indispensable to the surgeon, and should be required, but ought not to affect the present students, whom it would ruin.

Another alteration is, that henceforth there shall be two classes of members of the college. The first, to be examined in the learned languages, to be pure surgeons, and to be eligible to hospitals and dispensaries. The second to be admitted as at present, and may become general practitioners if they think proper. The former to be styled Fellows, the latter Licentiates. This is following the sage example of the old beldame in Pall-Mall East, so imitative are the chirurgeons of their venerable parent in the West. We must, admit, however, that this distinction virtually exists at present, for the pure surgeons look on general practitioners as an inferior grade, as appears by the collegiate by-laws, as well as by the grandiloquent production of Professor Green. For ourselves, we esteem general practitioners who act professionally, and practise medicine, surgery, obstetricy, and pharmacy alone, as much as pure physicians or surgeons; and therefore we cannot agree to the policy or propriety of the intended regulation, of placing them beneath their fellow members of the surgical college. We think, however, that all members of the College should be prevented from vending quack medicines; and, for our own parts, we consider them already bound by their oath, "to act honourably in the practice of their profession, as surgeons;" for we cannot admit that it is acting honourably, or fairly, for a regular surgeon to sell vile and useless patent medicines, and thus act contrary to his knowledge and conscience.

Those who sell such medicines will urge, that they must do so in self-defence, as chemists and druggists usurp their rights, and infringe upon them; and that a good profit is another inducement. These reasons appear to us unsatisfactory, because they would sanction all breaches of medical ethics, contrary to religion, morals, law, and common sense. Whenever medical practitioners act dishonourably in the practice of the profession, society despises them, and no longer entertains that unbounded esteem and respect for them which they have enjoyed for more than twenty centuries. Daily experience must convince every practitioner, that he who acts unprofessionally will be ruined by his brethren, and shunned by the public. This is so obvious that we need not adduce examples; but we might mention many that have fallen under our own observation. The medical profession is too dignified and scientific a body to sanction bad conduct in its members; and the few delinquents, and we are proud to say they are extremely few, have had ample opportunities of reflecting on their own folly and rascality. The truth of these remarks cannot be questioned, though some of our readers will find our statements extremely unpalatable. They must, however, digest them, after seasoning them with a due quantity of our endeavours for professional and public welfare.

PRACTICAL OBSERVATIONS ON THE NATURE AND TREATMENT OF HYSTERIA,

BY EDWARD AUGUSTUS CORY,

Member of the Royal College of Surgeons of London.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—There are no diseases, so troublesome to the medical practitioner, and apparently so little under the control of medicine, as those which have been denominated *nervous*. This class comprehends numerous affections, many of them having symptoms so anomalous, and so indefinite in their nature, as to render it impossible to assign to each its individual and specific title. It is not my intention to enter at large upon the consideration of this class of diseases, but to confine my observations to one probably of more frequent occurrence than any other, viz. hysteria. An hysterical paroxysm usually commences with a loud scream, and occasionally with a wild fit of laughter, both of which are perfectly involuntary; sometimes there is crying or sobbing, with every appearance of excessive grief; there is a heaving of the breast and abdomen, and frequently a noise in the throat, and difficulty of deglutition. The peculiar nervous sensation, named *globus hystericus*, is also experienced, and, as Van Swieten has justly observed, there appears to be a slight distention of the throat. The limbs and other parts of the body become agitated, sometimes very violently, the spasmodic action being of the clonic character. The patient, during the paroxysm, is in a state of partial consciousness, and can be roused so as apparently to understand a question, but the power of articulation is completely lost. There is often a copious discharge of limpid urine, but this symptom cannot be considered pathognomonic of the disease, as was the opinion of Sydenham, for it occurs in every affection which is attended with high nervous excitement. Hysterical patients are troubled with frequent eructations of wind, and borborygmus, a rumbling noise in the bowels, caused by the passage of air from one intestinal convolution to the other. There is also a pain experienced in the head, which occupies a very small space, and has received the name of *clavus hystericus*. There is frequently derangement of the uterine function, either excess or paucity of the menstrual secretion. Hysteria generally occurs about the age of puberty to the middle period of life, and is not entirely confined to females, the most effeminate of the male sex being also subject to the same complaint. A fatuitous state of mind, according to the experience of Martinet, is never produced by this disease alone. There are many other symptoms which might be enumerated, but, as the principal object of this paper is to endeavour, as far as my humble ability will allow me, to unravel the cause, and improve the general treatment of hysteria, I have purposely treated this part of my subject rather superficially, lest my paper should be extended beyond its intended limits.

Cause.—The cause of that peculiar chain of morbid phenomena, manifested in the disease called hysteria, is necessarily involved in some obscurity, as pathological anatomy has not yet been able to elucidate it with sufficient accuracy, to place it entirely beyond the reach of contradiction. It was considered by some of the most eminent of the ancients, that the origin of this disease was intimately connected with disorder of the functions of the uterus, and hence its name, and many moderns have supported similar opinions. Some contend for a general irritability of the nervous system, others for irritability of the nervous system of the arteries, as the predisposing causes of hysteria. It is indeed true, that functional derangement of the uterus, and also that a high degree of nervous irritability may be co-existent with other hysterical symptoms, but these

ought not to be regarded as the causes of the disease,—we must penetrate still further into the regions of causation, we must pursue our inquiries in the spirit of that inductive philosophy, promulgated and practised by the illustrious Bacon, and upon which all deductions, whether medical or philosophical, should be uniformly founded, or we shall never be able permanently to establish the ultimate object of our investigations. From numerous opportunities, which I have had of observing this disease in all its Protean forms, I have come to the conclusion, that its primary origin is dependant on *gastric* irritation, or some other peculiar kind of functional derangement of that viscus. It is allowed universally, that the stomach possesses a wonderful sympathetic influence over the functions of other organs of the body, and it is well known, that when it becomes disordered in any way, it exerts an important effect upon the due elaboration of the different secretions. The older writers were well acquainted with its great importance in the animal œconomy, hence the aphorism of the immortal Hippocrates, "ut terra arboribus, ita sit ventriculus animalibus." Upon the assumption, then, of this pathological view of the disease, it will be very easy to explain the excitability of the nervous system, which I am disposed to consider as secondary. The state of the menstrual secretion must also be considerably influenced, for, as all the secretions are derived from the blood, so, if the source of sanguification be deteriorated, which must be the case if the process of digestion be imperfectly performed, it is reasonable to suppose, that the different secretions must in some measure be interfered with, and consequently the menstrual. The globus hystericus, which exists so invariably in this affection, is the result of sympathy with the stomach, through the medium of branches from the pneumogastric nerve.

This disease cannot be considered as solely dependent upon the uterus, for we find that the more delicate of the male sex are frequently the subjects of the complaint. Its dependance for its cause upon irritability of the nervous system of the arteries is a mere gratuitous assertion, and cannot be supported by sound and solid reasoning; and the irritability of the nervous system itself, I have shewn to be only a consequence. The hysterical patient is not to be found among the active and laborious, but chiefly among the indolent, the gay, and the dissipated, among those whose corporeal powers have been vitiated by the refinements of luxury, and the sophisticated enjoyments of fashionable life. The more delicate persons, however, in the humbler walks of life, in the deteriorated atmosphere of large cities, especially those whose occupations are sedentary, are exceedingly liable to attacks of hysteria. In all the cases which have fallen under my notice, I have found that dyspeptic symptoms have invariably preceded, for some considerable time, the full development of the hysterical, that this derangement of the stomach has rendered the nervous system so excitable, that upon the application of any of the common exciting causes, an attack of hysteria has been induced with all its concomitant peculiarities, The exciting causes of hysteria are numerous, and too well-known to require any comment.

Treatment.—It is impossible that the treatment of any disease should be scientific and effectual, unless the therapeutical notions of the practitioner be founded upon correct pathological principles. It is an attendance to this particular that distinguishes the man of profound medical attainments from the mere superficial empiric. In the treatment of hysteria, it is advisable that nothing should be attempted during the paroxysm; the patient may be placed in a bed, and no forcible restraining power used, more than is actually necessary to prevent her from injuring herself. She is generally conscious, or at least partially so, of what is going on about

her, although from her appearance we should judge the contrary. As soon as the paroxysm has sufficiently abated, if the patient be plethoric, venesection may be performed; the quantity of blood abstracted should be according to the circumstances of the individual case. After bleeding, a draught may be given. Liq. opii sedat.—sp. ammon. arom.—sp. lav. co. mist. camphoræ. If the patient, on the other hand, should be of a weak or leucophlegmatic habit, venesection is not to be had recourse to. The administration of the draught alone will be all that is required in the primary treatment. The use of the following mixture will also be found exceedingly beneficial. It relieves the unpleasant acidity of stomach when it exists, and evacuates the bowels pleasantly and completely. ℞. Mag. sulph. ℥j. magnes. alb. ʒij. T. card. co. ʒij, T. gent. co. ʒj, aq. qs. st. mist. ℥vj. cujus cap. cochl. ij, mag. quartâ quaque horâ. Alterative doses of the pilul. hydrarg. may be also occasionally required. The remedial agent, however, upon which great reliance is to be placed, not only in a curative but also in a prophylactic point of view, is counter irritation applied in the epigastric region. For this purpose, a blister is to be placed in the immediate vicinity of the stomach, the efficacy of which is fully demonstrated in the subjoined cases.

Case 1.—Mrs. P——d, ætat. 40, was suddenly seized with hysteria; the symptoms were urgent, and as she was rather inclined to be plethoric, venesection was performed, after the violence of the paroxysm had in some measure subsided, which somewhat relieved her. An antispasmodic draught was also administered. She had been much troubled for a long time previously with dyspeptic symptoms, uneasiness in the stomach, acid eructations, &c. She had borne children. The catamenial discharge was uninterrupted, and the bowels constipated. She was ordered a mixture, composed of Magnes. sulph. magnes. alb. aq. menth. pip. which freely relieved her bowels, and much mitigated the uneasiness in the stomach. The force of the attacks became less violent, but as they did not entirely leave her, a blister was applied to the epigastrium; she was carefully dieted, and made to abstain from all indigestible food. She took the following medicine for some time, and completely recovered. ℞. T. gent. co.; T. card. co.; sodæ subcarb.; also aloes socotor. gr. iij; pil. hydr. gr. ij, omni nocte, horâ somni, which kept her bowels in a free state. She has had no return of the complaint.

Case 2.—Mrs. H———h had just arrived from the country, on a visit to some friends in the metropolis. She was attacked with violent hysterical symptoms; she had for a long time suffered from indigestion; she was perfectly regular; she had been eating pretty freely of confectionary, and had drank two or three glasses of wine, to which she attributed her present indisposition. V. S. ad ℥viij. was performed; the mist. mag. sulph. &c. was administered, which, although after some time, mitigated the force of the disorder, yet did not entirely cause its subsidence. An emplastrum lyttæ was applied to the region of the stomach;—she quickly recovered, and suffered no relapse whilst she resided in town.

Case 3.—Eliza Phillips had been for a long time subject to frequent attacks of hysteria, which were very violent. She was troubled much with dyspepsia. The menstrual discharge was sparing in quantity, but its regularity not at all interfered with. She was afflicted with all the ordinary accompaniments of this disease. She complained of a most distressing pain in the head, for which she was leeched and bled, and took emmenagogue medicines; but neither the pain in the head was mitigated, nor the frequency of the hysterical paroxysms prevented. The attacks were so violent during one night, that she exhausted two men in their attempts to restrain her. Venesection was again had recourse to, to the amount of ℥viij. She was

freely purged with the magnes. sulph. &c. mixture. An empl. lyttæ was applied to the epigastrium, which produced a plentiful supply of vesications, and had an admirable effect in relieving this most troublesome disorder. Some time has now elapsed since the application of the blister, and she has never been attacked since. She enjoys a much better state of health, and attributes her immunity from the complaint entirely to the blister.

Case 4.—I was summoned in great haste to Miss P., ætat. about 20, who had a severe hysterical fit. I found she had been for some time under the care of a surgeon at the west end of the town, by whom she had been bled to a very considerable extent, and who, upon her removal to her mother's, had recommended still further depletion, as the only means of mitigating the complaint under which she laboured. It was considered, however, necessary to have recourse to a different mode of treatment. There had been some interruption to her periodical health, and nothing had made its appearance for nearly two months. She complained of much uneasiness in the stomach; the most uncomfortable flatulency; and great pain in the head. She was rather of delicate constitution. She attributed the cause of her suffering to a sudden fright she had experienced. An antispasmodic draught was ordered as soon as the subsidence of the paroxysm would permit its administration. She took the mist. mag. sulph. &c.; a blister was applied to the stomach, which relieved her, and she went on pretty well for some days, when she suffered a relapse. A repetition of the blister was deemed essential, after which she completely recovered, and has had no return of the disease.

The author, fearing he should trespass too much upon the valuable columns of this Journal, has endeavoured as much as possible to condense his remarks, but he humbly trusts in so doing he has not rendered them less intelligible. He could cite numerous other cases, demonstrating the great utility of epigastric counter-irritation in this obstinate and often distressing affection.

Cannon-street Road.
March 6, 1833.

CENTENARY COMMEMORATION OF DR. PRIESTLEY.

On Monday, the centenary of the birth of Dr. Priestley was celebrated at the Freemason's Tavern, when about 150 gentlemen, comprising some of the most eminent scientific personages in the kingdom, sat down to dinner. Dr. Babington presided; on his right and left sat Mr. Lubbock, Mr. Hatchett, Dr. Bostock, Dr. Daubeny, Dr. Roget, Professor Cumming, Dr. Faraday, Dr. Turner, Dr. Paris, Count Funchal, and several members of parliament.

The discoveries of Priestley, Black, Cavendish, Sir H. Davy, and Wollaston were fully noticed; and compliments were paid to many of the illustrious philosophers who were present.

HISTORY AND OBJECTS OF MEDICAL REFORM.

ARTICLE IV.

The field of professional reform is one in which we have seen many labourers, although their attempts have not yet been crowned with perfect success. Nevertheless, it is our opinion that considerable approaches have been made towards the desideratum. Let us persevere; for perseverance combined with patience (as the schoolboy's copy says) overcomes many difficulties. We hail, with a perfectly cordial welcome, the approach of every ally; but we must not forget our predecessors. Certain well-meaning gentlemen (whom it might be invidious to name) fought *their own* battles with the colleges; others fought *pro bono publico*: "Dulce et decorum

fuit." And it is somewhat curious, that, in every instance of the first description, the corporate bodies beat the assailants, while in all the others (so far as our knowledge and information go) the corporate bodies lost the day. We leave the surgeons, upon the present occasion, to the management of an able castigator, who has been highly instrumental in enlarging the sphere of their vision; he is a clever optician, and sees through his business with great clearness and perspicuity. With *the worshipful company* we also decline interference, not doubting that others will watch their proceedings, and make due report, if they misbehave themselves. We claim the physicians as our *especial province,*—a region in which we have travelled formerly.

Were we not aware of the fate which happens to many good books, viz. *oblivion,* we might be surprised that no mention has been made of one put forth by Dr. Harrison, who seems to have been a most determined reformer from a very early period. When we take the liberty of saying that he was the intimate personal friend of the late Major Cartwright and of Sir Joseph Bankes, as well as being still the supporter of some of the most distinguished reformers of the present day, that his family connexions lean to *the opposite side,* and that some of them are even determined opponents of reform, we owe the humble tribute of respect and admiration, which we hesitate not to call upon our readers to join us in paying*.

So far back as twenty-three or twenty-four years ago, this gentleman published "An Address delivered to the Lincolnshire Benevolent Medical Society, at their Anniversary Meeting, in 1809, containing an account of the proceedings lately adopted to improve medical science, &c. * * * to which is added an appendix, comprising the acts of Henry VIII., &c."

It must be called to mind, *in limine,* that this was no fulsome address to the governors of a provincial dispensary, or other charitable institution, upon which occasions *puffing* is commonly the order of the day, but the *compte rendu* of an able ambassador, who had been entrusted with professional interests, by a most respectable body of professional constituents. In the very outset of this address, (which has fallen into our hands since Article I. was prepared) he expresses surprise that the state of the medical profession should have been so long disregarded. We have (not knowing that he had anticipated us) expressed surprise of a similar nature. We had positively not perused the first page of the volume with due attention when we assigned, in our 2d article, the rise of medical estimation to a period of no more remote date than 300 years. Dr. Harrison, however, has *anticipated* us in this precise reference, and we can only say, that it is a coincidence not unworthy of note, because it confirms us in what was but a guess.

In the exordium of this "Address," the author stands up stoutly for the moral and political, as well as the professional character of our brethren.

The "Address" reminds the auditory that even in 1804 an inquiry was instituted, through the medium of Dr. H., into the state of medical practice in the extensive, populous, and wealthy county of Lincoln. It was then found that quacks were nine in proportion to one regular practitioner! This disclosure naturally alarmed the respectable members of the society, and they determined to solicit the active interference of the late Sir Joseph Bankes, their patron, and the intimate friend of their delegate, or representative, Dr. H. Sir Joseph advised the doctor to proceed to London, which he did, for the purpose of propitiating the medical authorities; but although

* Dr. Harrison has nothing to do with these articles; but we wish to take the opportunity of declaring the fact, that in the populous parish which he inhabits, that of St. Mary-le-bone, he, as a member of the vestry, is effecting a saving to the inhabitants of many thousands a year.

there was an association of the faculty, holding meetings upon the same subject, and the individual heads of the corporate professional bodies received the envoy with personal respect, they all, with one accord, "began to make excuse." The College of Physicians issued a royal proclamation about their members *, but though addressed to judges, justices of the peace, and other magistrates, it was speedily *non inventus*.

The Royal College, however, prepared a plan for parliamentary consideration, which had but one object, i. e. to establish the fact of their Fellows being infinitely more able for professional undertakings than Licentiates. They were to have the power and privilege of examining general practitioners and others, about matters which it may be doubtful whether they knew themselves, and to deal with knowledge or ignorance according to discretion.

With an appearance of candour, some of the leading official members of the corporate bodies attended a meeting of the association, but it is more than suspicious *why* they went there; and, notwithstanding a declaration drawn up by the association, setting forth that they had no design whatever to infringe upon the collegiate powers and privileges, the persons in question backed out of the business, and declined co-operation.

In reciting an abstract of an answer to inquiries which were circulated by the association, already alluded to, there is the following striking article:—"The urgent and irregular demand for army and navy surgeons, enables a great number of *unqualified* persons to get employed during the war; who settle afterwards in different parts of the kingdom, to the great annoyance of established practitioners."

This is a *Parthian* glance (thank God) as times go now; but we can corroborate the statement to its full extent. About thirty years ago, or perhaps rather a little further back, the question was, who will be a *regimental surgeon*, and go abroad? Now the order of march is reversed, and has been so for a comparatively long period; the lamentation, therefore, at the present juncture is—I wish I could get a medical appointment as *hospital assistant**, I would go anywhere.

While alluding to this, we shall take the opportunity of stating that when the old Walcheren Board was dismissed, and the successors already alluded to set about acting at their own discretion, for the benefit of the service (although during the hottest and most important period of the Peninsular War), it was regulated that no candidate for a commission in the medical department should be admissible to examination by the board, who was not either already a physician, or a surgeon accredited by diploma. This, we are somewhat proud of saying, became immediately the object of every well-educated young man's ambition, of which, *per contra*, it was truly worthy. One of the greatest curses to the country—that to which Dr. H. has alluded in the article last quoted—arose out of the Walcheren expedition, and, no doubt, results from it still. The Board swept London, and made an officer of every fellow who had tied a label on a bottle, or carried out a box of pills from a chemist's shop. Away they went to the Scheldt, despised or laughed at by all the gentlemen into whose society they had been thus thrust; but, as it was necessary to set them to work, and as, according to the military axiom, "one officer is as good as another," it may be better imagined than described what sort of work the impudent dogs made of it, among thousands of suffering and dying men. Some of these interlopers contrived (after this exploit of Castlereagh and Chatham) to remain in the service; but the mob at large, when their work of death was over, returned in the capacity of proud *half-pay of-*

* See Harrison's Address, page 10.

* The lowest army medical rank, but the only road to promotion.

ficers (*!*) or with the notion promulgated that they were so, to quack or bamboozle the citizens, as they had neglected or poisoned the soldiers.

When the President of the College of Physicians (Sir Lucas Pepys, also Physician General, and head of the Army Medical Department,) was called to account, at the bar of the House, for his inexplicable neglect of medical supplies to the finest and strongest army which ever left England, he was interrogated as to the miserable set of officers he had despatched upon so important a service; his answer was worthy of the Royal College, and it was to the effect, that he had not sufficient remuneration at his disposal to insure talent. Penny wise and pound foolish! Every man that either died, or came home alive, cost the country considerably more than a few shillings *per diem* to a qualified officer could possibly have done, besides the abatement of mortality which would have ensued. We are aware of the circumstance alluded to by the author of "Santarem*," of one of these Walcheren heroes being locked up (lest he should disgrace the hospital) when Lord Wellington paid it a visit. We once saw him making up some pills of calomel, of about two grains each, and as he had bogged them (*i. e.* made them too wet) in the first instance, he was most intrepidly drying them up with *additional calomel*, till the pills became the size of marrowfats, and consisted of about ℈j. each. Fortunately, a superior officer detected him at this work, otherwise the ignorant patients would have had *a dose* to take.

However—thanks to the wisdom of the present rulers over these matters—instead (as the doctor complains) of an incompetent practitioner settling, after having been in any branch of the public service as a medical officer†, to the detriment of the public health and safety, there are none in the profession capable of pretending to greater skill or qualifications; none so inexhaustible in their resources—none more humane in their department towards suffering humanity — none more aware of their responsibility to God and society—none more firm, decided, and dexterous in difficulty, than the REAL MEDICAL OFFICERS OF THE ARMY AND NAVY!

ALIQUIS.

[We proceed with the consideration of Dr. Harrison's enterprise in our next article.]

* "Or a Picture of Society and Manners in the Centre of Portugal."

† The army, navy, and East India services, are on a footing as to medical qualifications.

Review.

New Views of the Process of Defecation and their Application to the Pathology and Treatment of the Diseases of the Stomach, Bowels, and other Organs; together with an Analytical Correction of Sir C. Bell's Views respecting the Nerves of the Face. By JAMES O'BEIRNE, M.D., Surgeon Extraordinary to the King, one of the Surgeons of the Richmond Surgical Hospital, Dublin, &c. &c. 8vo. pp. 286. Dublin, 1833. Hodges and Smith.

(Continued from page 256.)

WE resume, with sincere pleasure, our notice of the valuable work before us, and are highly gratified at the many important and extremely beneficial results which will accrue from the sound judgment and new practice inculcated in its pages. The author is evidently a physician whose scientific attainments and practical experience are extensive, and these he has exerted with immense success in the present production. He advances original and novel views on the physiology of defecation, on the pathology and successful treatment of many dangerous and fatal diseases of the digestive organs.

Several new facts are adduced on the pathology of diseases of the inferior abdominal viscera. The relative anatomy of the parts is first described, and their liability to disease. Thus accumulations in the sigmoid flexure

must press on the hæmorrhoidal veins, and piles will be induced. The cause will prevent the flow of urine through the left ureter, distend that tube, irritate the kidney, and may excite nephritis. A distended cæcum will act in the same manner on the right ureter. Accumulations in the cœcum and flexure will press on the sacral nerves, cause pain in the sacrum, thighs, even in the legs and soles of the feet. Our author has frequently removed pain in the ball of the great toe and sole of the foot by a brisk purgative. He hints, that the loaded state of the bowels under consideration, may perhaps compress the common iliac vein and inferior cava, so as to cause either œdema of the lower limbs or a varicose state of their superficial veins; "but these are points I must leave to be determined by future observation."

He considers that a forced state of contraction and closure of the rectum are now shown to be the chief and commonest cause of constipation; but there are numerous other causes, as strangulation, invagination of any portion of the intestine, presence of calculi, retroverted scirrhus, or gravid uterus, and various tumours of the rectum, described by many writers, whom he names.

Dr. O'Beirne alludes to a singular cause of constipation, and cites numerous essayists on the subject:—that if matter is suddenly forced into the sigmoid flexure from the descending colon, it will become twisted, and cause a formidable obstruction. Another cause of constipation advanced by our author, is the adhesion of the particles of the intestinal mucous membrane when inflamed; but this is generally prevented by the descent of fecal matter, though organized bands have been found on dissection. A remarkable example is quoted from the Dictionnaire des Sciences Médicales, art. *Constipation*, in which fibres crossed the rectum above the anus, the bowel and other intestines being so distended as to fill the pelvis and abdomen, and to contain eighty pounds, apothecaries' weight, of a blackish-brown pultaceous and offensive matter.

Another cause of constipation is advanced life, if the person is of a sedentary habit. In such cases, the abdomen becomes prominent, and often pendulous; its muscles become flabby, and are no longer capable of making the necessary expulsive efforts. Hence the cause of costiveness in advanced age.

Impaction of the rectum with feces occurs in the paralytic, aged, infirm, and sedentary. In such persons the muscles of the abdomen, perineum, and the muscular coats of the rectum, participate in the debilitated state of the whole muscular system, and therefore, when the rectum is filled, neither the same sense of uneasiness nor the same desire or power to evacuate is felt, as in stronger and more healthy persons.

Our author alludes to another description of constipation, occurring in aged persons, in which the rectum is impacted with hardened feces, though apparent diarrhœa be present. This was graphically described by Dr. Warren, of Taunton (Lond. Med. Obs. and Inquiries, vol. iv., and also Med. Commentaries, vol. x.) Dr. O'Beirne quotes it at full length, but we regret that our limits prevent us from following his example. This is less to be regretted, as we believe a condensed account will be found in Good's "Study of Medicine." Mr. Copland refers to a case somewhat similar, in which the mucous membrane was inflamed, mucous cylinders and shreds of lymph were evacuated.

It appears to Dr. O'Beirne, that, with the exception of the comparatively few instances in which alvine obstruction is the consequence either of the rectal cavity being traversed by membranous filaments, impacted with indurated feces, filled by tumours or other excrescences, or obliterated by the pressure of tumours, or of displaced or enlarged organs external to it, constipation is caused by a contracted and impervious state of the

rectum, produced by a more than usually firm and strong action of its own powerful and highly irritable muscular parietes. With this conviction, our author considers the indication of treatment to be mechanical dilatation of the rectum, so as to open and form a free communication with the colon, and thereby to give exit and circulation to the matter confined. This he effects by the introduction of a large-sized stomach tube, open at both extremities, into the sigmoid flexure of the colon, which will allow the escape of flatus and fluid feces, and the injection of an enema, by means of a syringe adapted to the tube, when considered necessary. The introduction of the tube is easily effected, and not attended with the slightest danger, when common caution is employed.

Our author analyses the best anatomical descriptions of the rectum, and clearly shows that no danger can ensue from the use of the tube. He relates cases of constipation of seven days' duration, in which the tube was introduced up the intestine seven or eight inches, when a burst of flatus, followed by a great and continued flow of liquid feces, took place from the tube, and produced immediate relief. This practice relieved strangulated hernia, and completely obviated the necessity of a cutting operation. These cases were witnessed by other practitioners, and are so extremely valuable that we must give extracts from them. The first is related by Mr. Hayden, Surgeon to the Anglesey Lying-in Institution. Before we insert, we have to premise that Dr. O'Beirne gives a vivid description of the causes and pathology of strangulated hernia, for which we must refer to his work. He maintains, wich Wilmer and Geoghegan, that strangulation, except when the neck of the sac is become thickened and contracted, is always caused by prolapsed intestine being distended with gas. Mr. Hayden's case is as follows:—

"The case of strangulated hernia occurred two years ago, and was that of an old man who lived in a wretched and filthy hovel in Hanover-square, off Hanover-lane. The hernial tumour was situated a little below the umbilicus, and had resisted all attempts at the taxis. The case was seen by yourself and Mr. Robert Adams, in consequence of considering it one that would require operation. In consultation, you proposed to try the effects of enemata given through the usual gum elastic tube. His bowels had not been moved for several days. I introduced the instrument myself with great ease. On arriving at the sigmoid flexure of the colon, a considerable quantity of flatus and fluid feces flowed through the tube; the patient expressed himself as feeling greatly relieved; and, on examining the situation of the hernia, the tumour had completely disappeared. I next threw up (without withdrawing the tube) a strong cathartic enema, which, in a few minutes, produced a copious discharge of solid and liquid feces. These are the prominent features of this case."

In the second case, an apothecary attended, and having failed to reduce the hernia, proceeded to prepare a purgative enema.

"As soon as this and the apparatus were procured, the patient was turned on his left side, with his knees drawn up, and the tube, which happened to be a stomach tube, after being oiled, was passed up the rectum, without much difficulty, to the height of about ten inches. No flatus could be heard escaping; but Mr. Carroll, who assisted me, on placing his hand close to the lower extremity of the instrument, said that he distinctly felt a current of air passing from it to his hand; and, on looking at the hernial tumour, we both agreed that it was sensibly diminished in size: the patient, also, said that he was certain of the fact, and assured us that he felt himself considerably relieved. This appearing to be a favourable moment for attempts at the taxis, they were renewed, but proved ineffectual. Con-

sidering the failure to arise from the eye or opening in the side of the tube having become blocked up with solid feces, I removed the instrument, and found that I had judged correctly. The tube was now well washed and syringed out with cold water, and after being dried and then oiled, was again introduced, and passed up to a greater height. Immediately a still greater reduction took place in the hernial tumour; and, on making another attempt at the taxis, the tube still remaining within the bowels, it succeeded, and the strangulated intestine was completely reduced. The patient immediately felt himself freed from all pain and distress, but, as the sigmoid flexure was evidently loaded with solid feces, it was considered necessary to throw up the enema which had been prepared. His bowels acted freely soon after; and, on visiting him the following day, I found him perfectly well, but lying in bed, as he was directed, until a proper truss could be applied."

In a case of metastasis of gout to the stomach, accompanied by incessant vomiting and obstinate constipation, which was attended by Professor Crampton and our author, the most powerful purgative enemata failed. The tube was introduced, when an uninterrupted stream of limpid fluid, amounting to three imperial pints, escaped. Immediate relief was afforded, and recovery happened. Dr. O'Beirne quotes cases of metastasis of gout and rheumatism to the membranes of the eye, nose, fauces, stomach, intestines, and genito-urinary organs, in which the secretions of these parts were altered; but he is unable to refer to a case in which the intestinal mucous membrane took on the action of a serous tissue, and produced an effusion of serum into the bowel. He concludes that this was effected by percolation. He also makes some excellent remarks on the immense serous discharge in the late epidemic cholera; but these we must omit. Numerous cases of constipation, colic, enteritis, puerperal fever, dysentery, tympanitis, and strangulated hernia, were relieved by the tube. Want of space compels us, most reluctantly, to omit all; but we are satisfied that our readers, generally, will possess themselves of the original work. Every experienced practitioner must hitherto have deplored the imperfection of medicine in some of these diseases, and hail, with delight, the knowledge of a remedy.

Most practitioners must have regretted the want of a remedy in idiopathic tympanitis, when this disease supervened in typhus, enteritis, peritonitis, in the puerperal state, &c. Dr. O'Beirne has the merit of originality and accuracy in his physiology of the large intestines. His discovery indicates an effectual practice in many diseases, while a personal experience of ten years, and a confirmation of the value of his treatment by many other practitioners, who are named in the work, establishes its value beyond the possibility of doubt. It may be said, that the introduction of an elastic catheter or tube was practised long ago; but to Dr. O'Beirne only belongs the merit of having employed it scientifically. In the preceding remarks, we have given a general outline of his opinions; but we strongly advise our readers to refer to the original, in which they will find the most minute anatomical descriptions, clear and correct physiology, pathology, and treatment of several formidable diseases. We need not state that we conscientiously consider this work as one of the most valuable of modern times.

The second part of it, entitled "An Analytical Correction of Sir Charles Bell's Views respecting the Nerves of the Face," will claim our attention at some future period.

CHOLERA AT CORK.

We are extremely sorry to learn that the malignant cholera is now raging at Cork, and not confined to the poor. The city presented a bill to the Grand Jury for £10,000, to be applied to the prevention of the disease.

PROFESSOR DAVIS ON IRRITABLE UTERUS.

THE following comment on Dr. Gooch's description of irritable uterus will be found in the Fasciculus of Obstetric Medicine, for March, and deserves great attention.

"This plausible theory of an exquisitely painful disease, without the coexistence of inflammatory action of the affected organ, must at best, in the present state of our knowledge, be considered doubtful as to its correctness. It is not even certain that we are yet acquainted with all the possible forms of inflammation, so as to be competent to assert broadly and emphatically that this or that variety of inflammation should have a natural and necessary tendency to end in disorganization of structure. It is not easy to conceive of certain forms of rheumatalgic affections, for example, such as lumbago and sciatica, without connecting with them the idea of an inflammatory condition of the tissues principally concerned; and yet on that account, who ever supposes that such inflammatory actions have a natural and necessary tendency to end in malignant disorganization of structure? If muscular fibres be a constituent tissue of the uterus, why might not such fibres become the subjects of a painful inflammatory affection, a truly rheumatalgic affection, without being followed, any more than in the other case, by a malignant disorganization of structure? It is well known that the uterus is not unfrequently the subject of very painful states, occasioned exclusively by functional causes, as we see constantly exemplified in cases of disordered menstruation, leucorrhea, &c.; but does it necessarily follow that such morbid conditions are essentially independent of all inflammatory action? Or, rather, is it not demonstrable that of some of them, at all events, inflammatory action is an essential attribute? And yet we find that such painful states, such demonstrably inflammatory affections, may be sustained for many years without producing malignant disorganization of structure. The limits subsisting between the phenomena, respectively, of irritation and inflammation, are not yet established with sufficient precision to enable us to determine with perfect confidence under which of these heads some doubtful forms of disease should be classed. Many diseases, loosely attributed to irritation alone, are often characterized by symptoms which a more accurate diagnosis would enable us at once to ascribe to actual inflammation. In the description of the irritable uterus as above quoted, we encounter several symptoms which are known to be constant accompaniments of inflammatory action."

BOOKS.

Observations on Impediments of Speech, with some Remarks on their successful Treatment; addressed by T. J. PETTIGREW, Esq., F.R.S., F.A.S., F.L.S., &c. By RICHARD CULL. London: 1833. Renshaw and Rush.

The Edinburgh Medical and Surgical Journal for April, 1833.

CORRESPONDENTS.

Amicus.—We must decline all farther communications for or against General Practitioners, Chemists and Druggists.

Mr. Merry.—It was impossible for us to give the article until we received it. The illness of our reporter caused the omission.

A Georgian.—We cannot give the information required in this Journal, but shall do so privately.

Mr. J. B. Slade.—The communication of our correspondent is only a reiteration of the objection used by the reviewer of Mr. Curtis's work, as to the utter impossibility of applying caustic every day to a cataract.

Mr. Ellis's letter is under consideration.

We again request all communications to be post paid—we have refused several this week.

Errata.—P. 250, col. 2, line 29, *for* heat, *read* heart.

Amount of Subscriptions already received in aid of Dr. Ryan . .	£218	18	0
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THE

London Medical and Surgical Journal.

No. 62. SATURDAY, APRIL 6, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXX., DELIVERED DEC. 12, 1832.

Gentlemen,—I was observing last Monday evening, that all badly contused and lacerated wounds have little or no chance of healing by the first intention However, parts of such wounds, those parts I mean which are least contused or lacerated, do occasionally heal in this desirable manner; but the greater portion of the extent of injuries of this nature must generally suppurate, and frequently there is sloughing. This fact, then, leads us to the consideration of the process, by which suppurative wounds and ulcers heal. I explained, in a former lecture, that, as soon as the destructive process of ulceration had ceased, and the sore had begun to manifest a disposition to heal, the preponderating action of the absorbent vessels of the part, over that of the nutrient arteries, terminated, and the power and functions of the latter were resumed with great activity. They have now something more than their usual office to perform, for they have to fill up the chasm left by ulceration, and they have to accomplish changes, by which the parts are restored as nearly as possible to their original state. This process of restoration is not confined, however, to the removal of the consequences of that operation in the animal body, which is termed *ulceration*, but it displays its usefulness also in repairing or filling up other chasms and breaches in the texture of parts, formed by the separation of sloughs, or left after the bursting or opening of abscesses. We find it likewise beneficially exerting itself in the cure of wounds, which, in consequence of severe contusion, laceration, loss of substance, too much inflammation, or other causes, cannot be healed by the first intention, and must unavoidably suppurate. In all these instances, the process of repair and restoration, adopted by nature, is of one and the same kind. She heals a suppurating wound exactly in the same manner and by the same operations, which she avails herself of in the cure of ulcers in general.

Gentlemen, one of her principal means for this end is the *production of granulations*, or those little conical or rounded prominences, of a softish new substance, which rise up on the surfaces of suppurating wounds and sores, and serve, not only for filling up the chasm or cavity that presents itself in these cases, but also for bringing its circumference, or edges, as much towards a central point or line as circumstances will permit. The manner in which this is accomplished, and its usefulness, which is far greater than may at first be conceived, I will presently explain.

The operation, by which these new productions, termed *granulations*, are formed, and which was called by the surgeons of former days *incarnation*, consists in the deposition of animal matter on the surface of an ulcer or open wound. When a wound does not heal by the first intention, it becomes, in a few hours, affected with tenderness, pain, heat, and inflammation, and, shortly afterwards, a thin serous fluid oozes out from its surface, which is gradually covered with an exudation of coagulating lymph. It is by means of this lymph, that the interstices in the cellular membrane are closed. A layer of coagulating lymph being thus deposited upon the surface of the wound by the vessels of the injured textures, another step in the process is now to commence, namely, the extension of new vessels into the lymph, so as to render it vascular and organized. In this early stage of the process, new vessels begin to enter the coagulating lymph, and to deposit the new animal matter, which is to be converted into granulations, and these soon become exceedingly vascular themselves by the growth or extension of young vessels into them. At the same time that granulations arise, we notice the secretion

of pus. There seems, indeed, to be a close connexion between the two processes of *granulation* and *suppuration*, and this is so much the case, that it is not an uncommon opinion, that an example of a granulating surface is never seen, without being accompanied by suppuration. I believe this view to be correct, and that the few objections, which have been raised against it, have very little weight. I will mention what those objections are: Mr. John Hunter dissected a fractured tibia, and found, between the ends of the broken bone, something which resembled granulations without any pus being present. Then, it is observed, that, in particular textures, ulceration takes place without suppuration, as, for instance, in cartilages and the cornea of the eye. The observations of Mr. Hunter, on the process of granulation, are equally minute and original; he traced, with wonderful patience, the growth and vascularity of the new substance; he frequently noticed, on the surface of an open wound, or ulcer, a white substance, exactly resembling coagulating lymph; he left it undisturbed, and the next day, when the dressings were taken off, he carefully examined it again. He then perceived, that it had become vascular, and that, on being wiped, or touched with a probe, it bled freely. He ascertained, by experiment, that the same changes take place on the exposed surface of bones; for he scraped the denuded os calcis, and the next day he found, on the scraped surface, a white substance, corresponding in appearance to coagulating lymph. After this, he could no longer touch the bare bone with a probe, on account of the interposition of this substance; and, in twenty-four hours more, he found that healthy granulations had been formed. Some writers, and among them I may mention Bichat, believe that granulations are produced only from the cellular membrane; but the fact, recorded by Hunter, of the origin of granulations from the surface of bone is, according to my conceptions, quite sufficient to refute that notion, and, instead of inclining to this narrow hypothesis, I should say, that granulations may be formed by any texture, which is adequately vascular. Every granulation has an artery, which is derived from the arteries of the original subjacent parts, and which, after reaching what may be called the *base* of the granulation, divides into many branches, which radiate towards its surface. There are no preparations in the museum of this University, exhibiting this particular arrangement of the vessels of the granulations, but such specimens are common enough, and in various other museums, you will find examples of ulcers, the vessels of whose granulations are successfully filled with fine injection, so as to demonstrate the particular arrangement of the arteries of the granulations, which I have described to you.

Gentlemen, from the account I gave you of granulations, when on the subject of ulceration, you must remember, however, that the texture and appearance of these little bodies vary according to the condition of the sore:—while the destructive process of ulceration is going on, you may observe minute excavated points on the surface of the sore; but, as soon as the healing process is established, granulations show themselves, and give a rough granular appearance to the surface; and I may once more observe, that the more pointed, small, and red these granulations are, the better is their condition, the more healthy their nature. When granulations are of this desirable character, they have a lively red hue, a kind of vermilion tint; their vascularity is considerable; the circulation in them brisk; healthy pus is secreted from them; and the sore or wound is healing apace, without pain or inflammation. When granulations rise much above the level of the adjoining skin, and are large and flabby, assume a pale colour, and are spongy, the healing process cannot advance favourably. In such granulations, the circulation is languid; they have not the power to produce healthy pus; they are not disposed to form new skin; and they have no tendency to unite together, like those of a healthy sore, or well conditioned suppurating wound, whose granulations readily conjoin, their vessels quickly inosculating together. Thus, gentlemen, you will find, that if you lay down the flaps of a wound, which has been poulticed till granulations have been produced, such flaps will unite to the subjacent parts with great rapidity, though these are also covered with granulations. But unhealthy granulations, which are large, pale, and flabby, evince no such disposition to coalesce with one another.

The next fact, gentlemen, which I wish you to recollect, is, that granulations are secreting organs; this is proved by their secretion of pus. Their sensibility also establishes another fact, which is, that they are supplied with nerves, and the development of nerves in them forms a subject as curious, as that of the manner in which blood-vessels are extended into them. That they must be well supplied with nerves is perfectly clear; for the slightest touch of them gives pain. But, although granulations, arising from sensible parts or textures, are extremely sensible, it is observed, that those, which are formed by less sensible parts, give no pain when touched. This is the case with the granulations formed on bones, tendons, and fasciæ. However, with regard to the granulations of bone, the assertion of their insensibility has given rise to some dispute. Sir Astley Cooper represents them as being destitute of sensibility; a doctrine perhaps admissible with one qualification, namely, that it is only when the texture of the bone is not inflamed, that its granulations are insensible. When bones or tendons are inflamed, the granulations which they furnish are then extremely tender, and, on being touched, cause severe pain. Granulations are provided not only with arteries, veins, and nerves, but also with lymphatics. The fact

is frequently observed, that, when an unfavourable change takes place in the state of the patient's health, or of the wound or sore itself, the granulations are frequently absorbed with astonishing suddenness; they are entirely removed; and it is in consequence of this existence of absorbent vessels in granulations, that surgeons are so cautious about what they put upon them; for they know, that the too free use of certain applications to granulating surfaces affects the constitution in a disagreeable and even dangerous manner, in consequence of being taken into the circulation. Thus, if the powder of cantharides be applied to an ulcer or suppurative wound, the effects of it are severely felt in the urinary organs; in the same manner, if wounds be dressed too freely with oxymuriate of mercury or arsenic, the patient will be poisoned with as much certainty as if they were introduced into his stomach, the symptoms and consequences being in each instance exactly the same; opium is also absorbed from the granulating surface of a sore or wound, and therefore may become the exciting cause of head-ache, constipation, and lethargic symptoms. I have known several instances of violent salivation from the too free use of red precipitate in ointments. Belladonna is often applied to irritable or cancerous sores; and sometimes its absorption by the granulations will bring on an amaurotic affection of the eyes, or paralysis of the optic nerves. Another fact, respecting the absorbent power of granulating surfaces, is, that the older the sore is, the greater is its absorbent power, and the more quickly will it take up various articles put in contact with the granulations. Ulcers are well known to absorb more readily, than recent suppurating wounds.

Cicatrization, gentlemen, is that part of the healing process which consists in the formation of the *cicatrix*, or the substance composing the *scar*, which, in ulcers upon the surface of the body, is formed of the remains of the granulations and the new skin covering them. When the chasm of an ulcer, or the cavity of a suppurative wound or abscess, has been filled up with granulations, the next desirable change is *the production of new skin* over them. When this process is about to take place, a fine, delicate, smooth, shining bluish red pellicle is first observed on the margin of the sore. This pellicle, which varies from one to two or three lines in breadth, is the rudiment of the new skin, and found to extend itself gradually from the edge of the sore to the centre, until the whole of the granulations are covered, when suppuration immediately ceases. The sore is now healed, and cicatrization complete. In almost all cases, the pellicle I have mentioned is derived entirely from the adjacent old skin; it begins only at the margin of the sore, or rather it seems as if the surrounding skin gives a disposition to the nearest granulations to produce skin, in the same manner as bone gives to its granulations a disposition to form osseous matter. Sometimes, however, it is observed, that the pellicle appears first in the centre of an extensive granulating surface, far away from the margin; this may happen when the sore or suppurating surface is one of considerable size, or when the skin in the centre of it has not been completely destroyed. It is the opinion of Sir Astley Cooper, that new skin never begins to form in the centre of a sore, unless a portion of the original skin in that situation has not been completely destroyed. Many years ago, I attended a workman, who had been scalded in a laboratory from head to foot with boiling opodeldoc; of course, after the separation of the sloughs, immense ulcers were left, in the centre of which, portions of new skin were formed, appearing like small islands in the midst of the granulations; but, whether this was because some of the old skin at particular points had partially escaped destruction, as suggested by Sir Astley Cooper, is a question which I cannot undertake to determine. The explanation brings with it, I think, much probability, and is worthy of your attention.

Then, gentlemen, the whole of the new substance filling up the chasm left by ulceration, or the cavity of a suppurating wound, and presenting a smooth compact feel, is the *cicatrix* or *scar*. The new cutis is remarked to be less supple, less moveable, and less elastic than the original skin; and, as it is destitute of those furrows or wrinkles, which are natural to the old cutis, it is smoother. It is, at first, exceedingly vascular, and therefore redder than the surrounding original skin; but, by degrees, it becomes even paler and less vascular than the rest of the cutaneous texture, though it always retains a smooth shining appearance. The cuticle is more easily formed than the cutis; in general, the cutis is produced only at the edges of the sore, and thence gradually spreads over it to its centre; but the cuticle may be deposited at once upon every part of the new skin; and the facility, with which it is generated, is well evinced on blistered surfaces, where it makes its appearance simultaneously at every point of the denuded cutis.

Now, gentlemen, the fine deep-coloured bluish pellicle observed at the edge of the sore, or healing suppurative wound, has on its outer side a whitish appearance, which is the commencement of the formation of the new cuticle. This white boundary of the pellicle in question is generally more noticed, as a sign of cicatrization, than the pellicle itself, because its colour renders it more obvious. Doubts have been entertained whether the rete mucosum admits of regeneration; but the fact that it does, seems now to be established; for, though scars on the bodies of negroes are pale at first, they afterwards become blacker, than the rest of the body.

While the formation of new skin is going on, the granulations are gradually absorbed, the whole mass of them, united together, becoming thereby lessened in diameter, and the

original parts being drawn nearer together, than they otherwise would be, which is a highly important occurrence; for the old skin, thus extended over a great portion of the sore, is far more serviceable, and more capable of resisting the effects of injury and disease, than skin of new formation. This *contraction*, or *absorption of the granulations*, goes on not only during the process of cicatrization, but also for some time after its termination; so that a cicatrix, which is at first perhaps several inches in diameter, will be at length reduced to one half or one third of that size.

This process of healing by means of *suppuration*, *granulation*, and *cicatrization*, is not limited to the reparation of ulcers and suppurative wounds,—it is also concerned in obliterating the cavities of abscesses after they have burst or been opened; and, be it remembered, that abscesses frequently will not granulate well until their interior has been sufficiently exposed.

This process of healing wounds and ulcers is, in fact, the means which nature employs for the accomplishment of *union by the second intention*, a phrase sometimes used in contrast with that of *union by the first intention*, or *by adhesion*. Union by the second intention, therefore, is brought about by the combined process of suppuration, granulation, and cicatrization, and, like union by the first intention, may be considered to be attended with a degree of increased action; for there is more heat about the part than is natural, as you will find if you examine the surrounding skin with a thermometer: the temperature will there appear to be two or three degrees higher than in other parts of the surface of the body. This circumstance may be received as a proof, that there is really a degree of increased action in the vessels of the part; they have, in fact, more than their common duty to perform, for they have to fill up and repair the chasm left by ulceration, or that resulting from a mechanical injury.

Gentlemen, one curious question connected with the foregoing subject is, *whether lost parts can be reproduced?* In men and the higher animals, no part completely lost or destroyed can be restored;—thus, if a finger or limb be cut off, it can never be reproduced; but the case is different with the lower animals. You all know, that the claws of crabs and lobsters are reproduced with great facility. As far as I can judge, the skin and bones possess the greatest reproductive power of any textures in the human body. Very considerable portions of the skin and rete mucosum may be reproduced; and in former times, when the use of the catheter was not well understood, effusion of urine into the cellular membrane, near the urethra, sometimes brought on mortification of the whole of the scrotum, producing a complete denudation of the testes; yet, in such instances, if the patient lived long enough, a new scrotum was formed. We find several facts of this kind recorded by Desault, in his Journal of Surgery; and there are few surgeons who have not observed extensive reproductions of the cutis. With regard to bones, the shafts of the cylindrical ones, such as the femur and tibia, are sometimes entirely destroyed by *necrosis*, as the mortification of bone is termed; and then nature forms a new shaft, the old one being either gradually removed by a natural process, or taken away by a surgical operation. You will find that, even in the skull, considerable attempts are sometimes made to reproduce portions of bone which have been lost by disease, accidental injuries, or the application of the trephine. In this skull which I now show you, surprising efforts have been made to regenerate a sufficient quantity of new bone, to make up for what has been lost: it is the skull of a person who was trephined forty-five years before his death, and who must, therefore, have been young when the operation was performed. You perceive, that ossification has extended over a considerable part of the opening, and that very extensive efforts have been made to close it entirely with new bony deposit.

But, gentlemen, when I come to the subject of necrosis, you will see some convincing specimens of the extraordinary power of nature in reproducing bone. Muscles, cellular membrane, and fasciæ, I believe, are never reproduced. When muscular fibres have been divided, they become connected together again by a substance not of their own nature, but which, by joining them together again, enables the muscle to perform its functions. Nerves, also, when divided, become united by a substance which does not exactly resemble that of the original nervous texture; yet the interposition of this new texture would appear sometimes to enable the nerve partially to regain its functions. In the writings of Abernethey, you will find some observations in support of this statement. However, as far as I can judge, the skin and the bones are the two textures, on which nature has bestowed the greatest power of repair and reproduction.

Gentlemen, the next class of wounds to which I request your attention, comprehends those occasioned by *gun-shot* violence. *Gun-shot wounds* are highly interesting to all practitioners in surgery, and more especially to those, who are likely to serve in the navy or army. They arise from parts of the body being more or less violently struck, and generally penetrated, by hard, obtuse, commonly metallic, substances, projected from some description of fire-arms, such as pistols, muskets, and cannons. These substances, which are usually leaden bullets, or iron balls, may be forced into or through a part; or, if a cannon ball occasion the mischief, a whole limb may be carried away by it, or the muscles and bones may be contused, crushed, and totally disorganized, while the skin remains unbroken. This kind of injury, where the textures under the integuments, and even the bones, are crushed, while the skin

continues unbroken, is ascribed to the great elasticity of the cutaneous texture. The case is well known as the sort of accident in former times erroneously termed a *wind contusion*, and which was supposed to be produced by the violence, with which the air was driven against the parts by the passage of a ball near them; but wherever you meet with examples of such mischief, you may be certain, that the ball has actually struck the part, but has struck it obliquely, and rolled, as it were, round its surface. Thus, the muscles and bones may be crushed without the skin being even torn; nay, if the trunk be struck in this manner, the liver, lungs, and other important viscera may be burst and compressed to atoms, without any breach of the skin, or any external mark of violence. Soldiers seeing their comrades killed in this way, without any appearance of a wound, naturally suppose, that the catastrophe must be owing to the wind of the ball.

When the composition of gunpowder was not generally known, the old surgeons suspected, either that gun-shot wounds were poisoned ones, or that the ball burnt the parts in its passage through them. Gentlemen, I need scarcely inform you, at the present day, that both these notions were incorrect. Gunpowder has nothing of a poisonous quality in its composition; and balls, discharged from muskets or cannons, do not acquire that degree of heat which would be necessary to burn the parts; indeed, it has been computed that the degree of heat, requisite to produce this effect, as the ball is moving with prodigious velocity, would fuse the metal. All the bad consequences of gun-shot wounds are truly referrible to other circumstances, which are chiefly the three following ones:—first, the hard obtuse kind of body with which a gun-shot wound is occasioned; secondly, the force and velocity with which it strikes, penetrates, tears and breaks the textures of the body; thirdly, the nature of the parts injured, which, from the depth of wounds of this nature, frequently consist of organs of the first-rate importance in the animal economy. Generally the contusion and laceration, produced in the parts surrounding the track of the ball, are indeed such as to disorganize them in a degree that necessarily causes them to slough. It is partly owing to this circumstance, that gun-shot wounds scarcely admit of union by the first intention; because, when a slough has become loosened within the wound, or near its orifice, there must of course be suppuration. The fact is, that, not only are the parts immediately around the track of the ball thus deadened or disorganized, but other neighbouring, though somewhat more distant textures, are more or less injured: thus, in a gun-shot wound of the thigh, there will often be a formation of matter, more or less extensive, under the fascia, in addition to the disorganization of the parts directly around the course of the ball.

Gun-shot wounds, like other contused and lacerated wounds, bleed less freely than incised ones; yet this doctrine must be admitted with some limitation. When I was with the army near Antwerp, a soldier was brought into the hospital, where I was serving, with a wound in his neck, occasioned by a musket-ball; he had been brought from the field, about a quarter of a mile off; there was no bleeding at the moment of his arrival at the hospital; but, in about five minutes after he had been placed in bed, an immense extravasation of blood took place above the clavicle and over the trachea, so as to cause a rapid suffocation. The poor fellow's face turned as black as one's hat, and in three or four minutes he was dead. The ball had entered the middle of the neck, and passing obliquely downwards, had injured the right carotid artery close to its origin: however, in this instance, there was no bleeding at first. Thus you see, gentlemen, that the bleeding from gun-shot wounds may be considerable, and even fatal. When I said, then, that gun-shot wounds bleed less freely than incised wounds, I did not by any means wish it to be understood, that they were altogether exempt from danger in this respect: in fact, in every great battle, hundreds of soldiers, killed on the field, perish of hæmorrhage within the chest or abdomen; and it is calculated, indeed, that most of the men, who die on the spot, are killed by hæmorrhage thus produced. Gentlemen, as this is the University conversazione night, I will not detain you any longer now, but will go on with the subject of gun-shot wounds to-morrow.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE XVII.

Sciatica.

Gentlemen,—There are some cases of sciatica at present in the hospital wards. Of these I do not intend to speak individually, but will throw out a few hints on the general treatment of the disease. Some of the acute cases of sciatica require a very active treatment; in fact, your practice must be as energetic as if you were treating a case of pneumonia. You must bleed, leech along the course of the sciatic nerve, and if this fails in giving the intended relief, you must follow it up by the exhibition of calomel, opium, and James's powder, until the mouth becomes affected. Commence with bleeding and the application of leeches, then mercurialize the system, and you will seldom fail in checking the disease. After this, if you manage your patient properly, confining him to his room during the existence of mercurial action, preventing him from taking cold, and then giving the sulphate

of quinine, you will not only cure the complaint but also prevent the occurrence of a relapse. Some may think this treatment too energetic for such a complaint, and may be of opinion, that the remedies just enumerated ought not to be employed, except in diseases which endanger life; but we must recollect, that acute sciatica, if not met by the most prompt and effectual management, is very apt to lay the foundation of lameness that may last for life, and render the patient a complete cripple, a misfortune scarcely less formidable than death, when the patient's support and sustenance require active bodily exertion, as is the case with labourers and most professional men. With respect to the chronic cases, the result is different, in some you will succeed, in others you will be disappointed; for our notions of nervous pathology are so limited, that we can scarcely ever promise ourselves complete success. In the cases which have a favourable termination, there is much variety of symptoms; some of them are accompanied with considerable tenderness along the course of the nerve, in others there is scarcely any. One of the most commonly employed therapeutic agents in the treatment of chronic sciatica is acupuncture, and of this it is necessary to say something, as there are many and decided proofs of its efficacy in giving not only temporary but also permanent relief. Persons, who have received benefit from acupuncture, have been always noticed to labour under the affection in the chronic stage, few, if any, having derived advantage from it when their symptoms were acute, and when there was severe pain and tenderness along the course of the nerve. You are not, however, to be deterred from employing it in chronic cases, by the existence of tenderness along the course of the nerve, and you should impress on your minds, that it is in all cases deserving of trial, where the disease has been of considerable duration. A common sewing needle, heated red hot, and allowed to cool gradually, with a head of sealing-wax, will answer the purpose much better than the needles which are sold, and it is such we always use in this hospital. After the successful application of the needles, you will do well to have recourse to sulphate of quinine; it is an excellent remedy, and has been found to produce the most beneficial effects. I remember a case of sciatica which came under my notice several years ago; the patient was very much reduced, he was quite lame, and greatly weakened; he had been through France, and remained at Barège for a considerable time without any benefit; his sufferings were very great, and broke down his constitution considerably. On his return to this country, he consulted me, and I advised the application of needles. The operation was performed by my friend, Mr. Harris. After the third application, the pain was removed, the lameness also rapidly diminished, and, in the space of a fortnight, he was quite well, and, what is very remarkable, continues so ever since. So happy a result as this is, however, seldom met with; chronic cases of sciatica generally give a great deal of trouble, and frequently disappoint the best directed efforts of medical skill. With regard to acupuncture, I would recommend you strongly to read the article in the Cyclopædia of Practical Medicine, which Dr. Elliotson has published on this subject, as you will find there all that is either useful or interesting. I cannot give any account of the *modus operandi* of acupuncture, nor has it been as yet explained. I wish you to remember one point, to which I have directed your attention before, namely, the sinking and flattening of the buttock of the affected limb, and to recollect, that in cases where the disease has lasted for a considerable time, and the muscles are wasted from want of action, a person would be liable, on a superficial examination, to mistake it for morbus coxæ. Reverting to its treatment, you will find that, in the chronic stage, much benefit will be derived from a combination of sulphate of quinine and arsenic. Sixteen grains of quinine combined with one grain of arsenic, made up into sixteen pills, one of which is to be taken three times a day, will form a remedy from which much advantage may be expected. Many cases are also relieved by blistering the calves of the legs, using the hip-bath, and taking oil of turpentine. I recollect a man in this hospital, who was permanently relieved by taking half a drachm of turpentine four times a day. Chronic sciatica is a very intractable disease, and requires, occasionally, the trial of various remedies, and the greatest diligence in their application. I have known some relieved by the daily use of warm hip-baths, made with distiller's grains, a favourite remedy among dairymen; in others, the constant use of stimulating liniments to the leg and thigh, together with the *douche*, and, when practicable, the Bath or Barège waters, in the form of baths, have performed a cure. It is of the greatest consequence to restore the strength of such persons, and therefore change of air ought to be recommended; and, perhaps, it is to this, that the cures, performed at Bath and Barège, are partly attributable. Tartar-emetic ointment, successive or perpetual blisters, the application of the actual cautery along the course of the nerve, electricity, &c. &c. may be all tried in obstinate cases. In some I have unexpectedly succeeded with corrosive sublimate where calomel had previously failed. I need scarcely add, that some forms of sciatica yield with facility to carbonate of iron. In making those observations, I must state, that they are only such as you will find in any treatise on practical medicine. A poor man was admitted, a few days ago, with a violent pectoral affection, said to be occasioned by a blow of a brass candlestick, received in an ill-judged attempt to separate a man and his wife who were beating each other. Had he died of the chest complaint, the loving couple would have been arrested as guilty of manslaughter, their victim

having been brought here by the police. The stethoscope exculpated them however, for it proved that the man's disease was pneumonia, pure and unmixed with pleurisy, intercostal or costal inflammation; on further inquiry, it appeared, that the peacemaker had, a few days previously, caught cold from exposure to the night air and rain, while in a state of insensibility, arising from inebriety. The pneumonia had produced very extensive hepatization of the lung, when the patient was suddenly attacked with cholera asphyxia, attended by the usual serous evacuations. It is very remarkable, that, as soon as the cholera commenced, the pulmonary affection began to diminish, and, in thirty-six hours, the hepatized lung had become completely pervious to the air!

Let me now direct your attention to the case of a woman, in the Fever Ward, with a violent affection of the lungs. In accounting for the origin of her complaint, she attributes it partly to a kick which she received from her husband, and partly to the effect of cold. When admitted, she had severe dyspnœa and oppression of the chest, bronchial râle, and, in fact, a very acute attack of bronchitis, requiring active treatment. Of the affection of the lungs I do not intend to speak at present, as it does not exhibit any peculiarity worthy of remark; but will observe, that the state of her heart is deserving of notice. Its action is extremely violent and irregular, but there is no sound present indicative of any morbid change in that organ, and the pulse is small and weak. It is also irregular; and the question is, has this woman organic disease of the heart or not? There is, as you must have observed, no rythm, no sort of regularity in the irregularity of the heart's action in this case: it is both intermitting and unequal; yet we cannot detect any morbid sound. Some of the pulsations are very strong, and give a very smart jerk to the fingers when you place your hand over the heart; others are so weak and gentle, that it requires a nicety of touch to be able to feel them. Where the impulse of the heart conveys to the finger of an observer a more than ordinary violence and intensity, we are apt to look on it as a case of hypertrophy, forgetting that this is a symptom which is frequently of very brief duration, and liable to occur in many persons if they have been exposed to any mental or bodily excitement. Besides, it is a remarkable fact, and I would impress it upon your attention, that in almost all cases where the pulse is naturally irregular, you have some of the heart's pulsations more violent than others, and that there may be a very great variety in the degree of this deviation from what is considered as the natural standard of the heart's impulse. It has been remarked, on a former occasion, by a pupil in this hospital, and it is a remark in the truth of which I coincide, that in most cases, where the action of the heart has attained a maximum of irregularity, there is no disease of that organ at all. In many instances of excessive irregularity, you will find these anomalies of intermission and remarkable inequality of pulsation, but nothing more—no decidedly morbid sound—no fremissement.

It is generally in persons who have passed the meridian of life that such irregularities of the heart's pulsations are found to exist independent of any organic disease; and many instances of this affection have come under my notice. In some we have a regular interval between the intermissions: they occur every third, tenth, fifeenth, or twentieth beat, and are accompanied by pulsations of greater intensity than natural. It would appear, that after each intermission, the heart gathered fresh force, made a stronger effort to propel the blood, and this is continued for a few beats; but the action being inordinate and excessive, it subsides, and the succeeding pulsations manifest a considerable diminution of volume. I remember attending an old gentleman who had an attack of erysipelas in his leg some time since, and was struck with the unusual irregularity of his pulse. It was very like that of the woman above stairs, and, at the time, arrested my attention strongly. The gentleman, who was an extremely intelligent man, and in the habit of making observations on his own constitution, asked me if his pulse did not intermit; and, on replying that it did, he said he was very glad of it, for when he was seriously ill his pulse became regular, but intermitted when he was well.

I have also seen another similar case with Mr Kirby and Mr. Crampton. The patient was a person of consequence, aged upwards of sixty, but of a strong constitution before the attack for which we attended him. The first appearances of disease were, fissures round the anus, pain in going to stool, and irregularity of bowels. These fissures, like similar ones about the lips and tongue, indicate a derangement of the digestive system, and give notice of the diseased action going on in more important organs. I mentioned that this gentleman was about sixty-three or sixty-four years of age. Sir Henry Halford states, that as there are a certain number of days forming the weekly period in the current of time, so there are a certain number of years which are remarkable for their being attended by periodicities in the human constitution; and that the repetition of the number seven in the years of a man's life is always attended with some important change in his system. Of these periods, the most remarkable is nine times seven, or sixty-three; and I have not the slightest doubt that innumerable instances might be adduced to prove that many persons at this time of life, without any particular disease, get into bad health, lose their flesh, sleep, and appetite, and experience what is called a *breaking up of the constitution*, without any sufficient cause to account for the change. When this occurs, it often happens that medicine, change of air, attention to diet, and every other restorative means cease to have any in-

fluence in checking this tendency to a decay of the vital powers. Under other circumstances, nature makes a successful effort; sleep, appetite, and cheerfulness return: they become quite brisk; seem, as it were, to grow young again; and, to the great disappointment of their heirs, go on, *de novo*, as well as ever. Now, this gentleman had one of these climacterical struggles, indicated by nervousness, dyspepsia, fissures about the anus, remarkable palpitations, and irregularity of the action of the heart and pulse. We made an attentive examination of his symptoms, and not being able to detect any local disease, were inclined to think his case one of those breakings up of the constitution; and, looking on the irregularity of the heart's action as dependent on functional derangement alone, we hoped that, under proper treatment, he might come round. His friends would scarcely believe us, when we stated our opinion, that there was no disease of the heart; for some of its pulsations were so violent, that they shook the whole chest; and this was more apparent from his great emaciation at the time, although, before his illness, he had been large and corpulent. Even Mr. Crampton was at first inclined to think there was some disease of the heart; but, on making a closer investigation, he agreed with us, that the affection was functional. Under our advice he went to the country; but his symptoms still continuing, he consulted an eminent physician, who pronounced his case incurable, stating that he had hypertrophy of the left side of the heart, with disease of the valves, and that there was no chance of recovery. As he was a person of considerable importance, there was great consternation among his friends, and we held another consultation. We again examined him, then, with the stethoscope, and being unable to discover any morbid sound indicative of organic lesion, reiterated the opinion we had previously expressed, and ordered him to take a tour through England. He went as we directed, and derived great benefit from the excursion; the irregularity of the heart subsided in the course of six months, and his pulse is at present as natural as any man's in the kingdom. I need not give any detail of his treatment; I recite the case to show how careful you should be in your diagnosis under such circumstances. I must observe, too, that the physician whom this gentleman consulted, and who declared his case hopeless, was esteemed a good stethoscopist. Mr. Crampton had another case very similar to this, in the person of a lady, who died of a different disease. I saw the case also, and said there was no disease of the heart. There was great irregularity of action, and she had fits of palpitations, which came on suddenly, and lasted for five or six hours, then had regular intervals or intermissions, and again returned. Many of the nervous and hysterical affections of females are found to observe these periodic intermissions. This lady was very accurate in the description she gave of her complaint; she took notes of her own case, and was one of those persons who consult many physicians, and treasure up the information they receive from each. She remarked that these fits of palpitation, when they first commenced, came on every third evening, nearly at the same hour, continued for some time, and then subsided. They were attended with great exhaustion; and during their continuance her life appeared to be in danger. They first occurred about three years before the lady's death, and used often to disappear altogether for whole months. After a frequent recurrence, the intervals between the paroxysms of palpitations became gradually shorter, so that in the end they were constantly present, and both the pulsations of the heart and the pulse became permanently irregular. The pulse was even more irregular than in the woman above stairs, and the patient being very thin, the heart's impulse was extremely remarkable. Mr. Crampton attended the case, and I was sent for to be asked whether there was any disease of the valves, for a gentleman of considerable stethoscopic knowledge had examined the case, and stated, as his decided opinion, that there was valvular disease. Of course, a good deal of caution was required upon my part. On the one hand, the excessive irregularity of the pulse and beating of the heart appeared inconsistent with a healthy state of that organ, and seemed to indicate disease of the valves; any one who had not considered this subject attentively, would at once exclaim, there must be something wrong in the mechanism of the heart, some decided disease of that organ and its valves. On the other hand, the fact that in their commencement the palpitations had been intermittent, the absence of any morbid sounds, such as those *bruits* which accompany valvular disease, together with the absence of dropsy, hæmorrhage of any sort, and the other symptoms which usually are produced by excessive organic disease of the heart, led me to adopt an opposite opinion. Mr. Crampton, who had watched the case with interest from the beginning, felt now doubly interested in it, and expressed much curiosity concerning the result; for when he heard the reasons upon which my opinion was founded, he acknowledged that they were very strong, but still he could not but feel incredulous about the absence of valvular disease in a heart whose action was so irregular. In the course of a few months the lady died, and Mr. Crampton procured her heart, which he examined in my presence. Except a slight increase in size, usual where there has been a long continuance of palpitation, it was quite healthy. There was not a vestige of disease in the valves!

In nervous and hysterical women, palpitations and irregularity of the heart's action are also very common. The palpitations which accompany hysterical attacks are in

general readily recognized, and can rarely be mistaken for symptoms of organic lesion. Such palpitations frequently last for months. There has been lately in this city a lady, remarkable for the brilliancy of her intellectual powers, in whom palpitations have been a source of discomfort and uneasiness, day after day and month after month, sometimes better and sometimes worse. She was reduced to a state of great nervous irritability by the incessant workings of an over-informed intellect and a restless imagination, acting upon a frame of body too weak for such exertions. Hence the frequent recurrence of palpitations, which had now become so constant, so distressing, and so violent, that the gentleman who attended her concluded that they depended upon organic disease of the heart, and added still more to her sufferings by bleeding her twice. A cessation from study, change of air, cheerful society, nervous and tonic medicines, together with the use of the shower-bath, gradually restored her to health.

There is another form of palpitation to which I would direct your attention before I conclude this subject, it is the palpitations which are frequently met with in young boys who grow rapidly. I remember the case of a young gentleman, about eleven years of age, who was so tormented with them, that whenever a fit came on he used to throw himself on the ground, and remain there until it passed away. In this little boy, the palpitation of the heart, while the fit lasted, was truly frightful, shaking the whole chest, and compared by himself to some one butting with their head against the inside of his chest; the paroxysms often came on suddenly, and were of various duration, sometimes not exceeding a few minutes, at others lasting for hours, and were rendered more alarming by occasional vertigo. Notwithstanding all this, the boy is now perfectly well, and has completely gotten rid of the disease. I have known similar attacks in other boys, and some cases in which the palpitations lasted for seven or eight months, recurring at night, with scarcely any intermission; I recollect one boy, who grew very rapidly, and had them very violently every night; they continued nearly in the same state during the period of growth, but when this had passed, the fits entirely disappeared. Growing boys will sometimes have palpitations like hysterical women, and of this you should be aware. It requires a great deal of caution in giving your opinion on cases of irregularity of the heart's action and intermittent pulse, nor should you venture hastily to pronounce them cases of disease of the heart, where the usual phenomena of *bruit de soufflet*, *bruit de râpe*, cough, dropsy, and spitting of blood are absent. It is to be remarked, that in young persons who have not attained the age of puberty, real organic lesions of the heart are occasionally surmounted; during the period of growth, nature appears to possess more resources, and has more plastic materials to work on, for we can readily conceive that while an organ is growing, it can be more readily moulded, so that the changes of structure produced by inflammation may be gradually removed. Of this I saw a remarkable example in the case of a young gentleman, the progress of whose disease was witnessed by Surgeon Baker, now of the county of Limerick. This gentleman, at the age of 13, at a time that he was growing rapidly, was attacked by a most acute pericarditis, from which he recovered after a very severe and protracted struggle. For nearly two years his pulse never fell below one hundred, and was extremely irregular and excitable; under these circumstances, it may be easily imagined that he was very liable to inflammations, and was, in fact, attacked at various periods by pulmonary, hepatic, and intestinal inflammations. His debility was great, and his colour deadly pale; notwithstanding all this, he gradually threw off the disorder, and now, at the age of twenty, his heart is perfectly natural in its action, and he is one of the tallest and most powerful young men I ever saw.

A young woman was admitted a few days ago into hospital, labouring under symptoms of abdominal irritation, with great distention of the right hypochondrium, in which we could feel a large tumour, capable of being traced up under the ribs, and assuming the appearance of an enlarged liver. Its outline, however, was irregular, and its surface uneven, though it went up under the ribs, and seemed to be continuous with the liver. The woman, too, was young, and there was nothing about her which could induce us to suspect the existence of an hepatic affection. I was inclined to think it a case of fecal accumulation in the colon, and it proved to be such. These accumulations frequently simulate organic disease of the abdominal viscera: Mr. Crampton and I attended a lady who had a tumour commencing in the right iliac region, and gradually increasing until it occupied nearly the whole abdomen. We examined it, and considered it to be disease of the ovarium. During the course of Mr. Crampton's attendance, she experienced great irritation about the anus, and Mr. Crampton was induced to examine the state of the rectum. He introduced his finger, and found it impeded by something hard, which proved to be indurated feces. We employed injections, and removed a bucket-full of feces in the course of two days. An accumulation in the colon had taken place, and we took it to be disease of the ovarium. Now, this lady had been in the habit of taking an aperient three times a week, and stated that she had a discharge from her bowels almost every day for the last three years. Still the fecal matter had been accumulating; and, you perceive, that it may go on in this way for a very long time with a kind of passage through the indurated portion, by which a small and fluid portion escapes, while every day an addition is made to the original mass lodged in the distended sacculi of the gut,

until it attains a magnitude which excites attention and suspicion of organic disease.

Five years ago, Doctor Marsh and I were called to see an old lady in Bagnal's Town, near Carlow, who had long been tormented by a severe and intractable dysentery, complicated with a perceptible tumor in the abdomen. All our efforts to afford her relief were useless, and her case was looked upon as quite hopeless, when she passed a large lump of a substance hard as stone, and which consisted of calcined magnesia cemented together by animal matter. She had for years been in the habit of using magnesia as an aperient. After this mass was voided, all the dysenteric symptoms ceased, and the old lady has since enjoyed excellent health.

You recollect the man above stairs who has been labouring under chronic bronchitis; he has had an exacerbation to-day in consequence of catching fresh cold from being placed accidentally near the perforations made for ventilating the ward. In speaking of his complaint on a former occasion, I stated that I suspected dilatation of the bronchial tubes, and probably enlargement of the heart. What I have to remark at present is, that we have been treating him after the plan recommended by Dr. Fothergill and lately by Dr. Elliotson, by giving an emetic every day. In cases like this there is a great quantity of mucus in the bronchial tubes, the lung becomes loaded and respiration oppressed, and the best thing you can do is to give an emetic, which produces the most beneficial effect on respiration. That the emetic may not interfere with the man's digestion, I give it in the morning, about four or five o'clock, when he awakes. Such persons are generally awakened at an early hour by the cough, which is brought on by the quantity of mucus accumulated during sleep, and continue to cough for three or four hours with great distress. This is the time when an emetic is given with the best effects; it unloads the lungs, shortens the fit of coughing, and gives very speedy relief, at the same time that it does not interfere with the patient's meals, for the stomach will be quite well before breakfast. There is another case of bronchitis, in a woman rather advanced in years, accompanied by irregularity of the action of the heart, in which we have pursued a different mode of treatment. She had been blooded twice, and I believe took tartar emetic without any proportionate relief. She is a person past the meridian of life, and one of those who have the abdomen remarkably large and developed. When you have to treat cases of bronchitis in persons of advanced age with large bellies, and find that, after resorting to bleeding and the usual means, the complaint still continues obstinate, I tell you that there is nothing which gives such decided relief as purgative medicine. This is a fact which I have learned from experience and observation; it is a rule which is applicable to all cases of bronchitis in persons of advanced age with the abdomen largely developed. This woman got more relief from compound colocynth pill and purging mixture than from any pectoral medicine I could prescribe for her. I have heretofore attempted to give an explanation of this occurrence, and mentioned that purging is one of the most effectual modes of getting rid of superfluous secretion; at present I will content myself with stating the fact, and impressing upon your attention the great value of purgatives under similar circumstances.

CLINICAL LECTURES

BY DR. MAC'ADAM,

Delivered at the South Eastern General Dispensary, Dublin, Session 1832-33.

Scirrhus of the Stomach—Spasm of the Cardiac Orifice—Diseases of the Œsophagus—Constipation.

Gentlemen,—Since I last addressed you, some interesting cases of affections of the stomach and alimentary canal have presented themselves among our dispensary patients, and I regret, that want of time has prevented my taking as accurate and as frequent notes as I could have wished.

The practice of taking down, by the bedside of the patient, a history of the symptoms and origin of morbid affections, is highly instructive, both to the student and more advanced practitioner. It impresses the leading symptoms of each case on his memory, improves and sharpens his powers of observation, makes him more closely inspect each individual symptom, and notice more accurately all the circumstances connected in the way of cause or predisposition, enables him to judge more correctly of the success of his treatment, and, should the case prove fatal, gives him an opportunity of comparing the symptoms, which were manifested during life, with the post-mortem appearances discovered by dissection, and thus corrects or verifies his diagnosis. I strongly recommend all medical students to exercise their minds in investigating and recording the histories of cases for themselves, and not to be satisfied by merely copying the details of clinical cases, which are to be found in the case books of hospitals; you may begin with advantage, perhaps, in the latter way, but you should soon commence the practice of drawing up cases from your own investigations, from which you will derive much more improvement. In the practice of this dispensary you will have abundant opportunities of acquiring this habit, which I trust you will avail yourself of, and my colleagues and I will feel much pleasure in assisting your first efforts, if any pupil will accompany us when we are going our rounds among our visited patients, or select some of the cases which attend at the institution.

The first case that I shall detail this evening is one of considerable interest, and, as most likely it will terminate fatally, we probably

shall have an opportunity hereafter of investigating the post-mortem appearances. It is, I conceive, an instance of organic disease of the stomach, possibly of what is called scirrhus of that viscus.

The patient presents the following symptoms:—Michael M'G., a job coachman, and an occasional whiskey drinker; he is pale and emaciated, exhibiting that peculiar expression of countenance, which I have frequently seen to exist with such affections,and which it is not easy to define in words; it is a worn, languid, dejected expression, indicative rather of long-continued suffering than of acute pain. He complains of a pain in the epigastrium and left hypochondrium, shooting occasionally to the back, generally of a dull aching character, but sometimes sharp, constant, but much aggravated at times, especially immediately after taking food, which he usually vomits half an hour or an hour after it is received into the stomach. He has occasional attacks of a dry retching, and sometimes of a straining of clear fluid, similar to an attack of pyrosis: this sometimes precedes an attack of full vomiting; the matter ejected generally consists of the food last taken little altered, but once or twice he vomited a brownish-red fluid like coffee-grounds. The epigastrium, especially in the central part, is sore on pressure, and the tenderness extends into the left hypochondrium. On examination with the hand, an indurated mass is felt in the left part of the epigastrium, extending from the point where the cartilages of the ribs form an angle, to about two inches towards the centre. Complains of a bad taste in his mouth, sometimes bitter, sometimes insipid, feels heavy in the evenings, with aggravation of his symptoms during the night, and some remission in the mornings; some slight cough; tongue a little white, red in the centre and edges; no thirst; some diarrhœa; pulse 90, weak. His illness commenced about twelve months ago with pain in the stomach and retching for some time; these symptoms were not severe, and did not prevent him from following his avocations: he was then sometimes free from indisposition for a week together, and the following week, perhaps, would have an attack of vomiting and pain every evening, throwing up his victuals unchanged; he never saw any blood or other unusual matter in what was ejected from his stomach, except the before-mentioned coffee-grounds-like fluid *; has occasionally a fœtor in his breath; he has only been confined to his bed the last six weeks. I have now had him under my care for upwards of two months; I have put him on a farinaceous diet, had a seton inserted in his epigastrium, and have given him occasionally small doses of watery extract of opium, conicum, hyosciamus, or extract of hops, in various proportions or combinations. The diarrhœa has disappeared, his appetite is a little improved, and the vomiting is not quite so frequent; but I do not entertain any hopes of his recovery; the most, I think, that can be done, is to relieve his sufferings and possibly protract his life.

Now, I think I am justified in concluding, from a careful consideration of the above symptoms, and a comparison of them with what I have previously seen, and with what has been recorded by respectable authorities on the subject, that this case is one of organic disease of the stomach, probably scirrhus of the greater arch and of the pylorus. On referring to Dr. Abercrombie's work, we are informed, "that disease of the pylorus may begin in a slight and insidious manner, like a mere dyspeptic affection, and gradually exhibit its more confirmed characters, or it may come on in a more rapid manner with acute symptoms, resembling an inflammatory attack. In its advanced stages, it is generally distinguished by periodical vomiting, occurring at certain regular intervals after meals, generally with fixed uneasiness in the region of the stomach; and we commonly discover, on examination, more or less of induration in the region of the pylorus."

Dr. Good defines scirrhus of the stomach as characterized "by acute and burning pain and tenderness of the epigastrium on pressure; nausea and rejection of the food; offensive fœtor of the breath."

Dr. Gregory tells us, in his Practice of Physic, "that scirrhus of the pylorus is attended with severe pain, often very acute, shooting to the back, aggravated by taking food, vomiting generally two or three hours after a meal, the matter ejected being dark coloured, emaciation," &c. &c.

Dr. Baillie states, "that when the patient is much emaciated, and the cancerous swelling situated near the pylorus, or along a part of the great curvature of the stomach; it may be felt in the living body by a careful examination by the hand."

Dr. Seymour observes, "that the essential symptoms of this disease are pain in the region of the stomach, aggravated by taking food, frequent vomiting,sometimes mixed with blood, always occurring about half an hour after solids or fluids have been swallowed; sensation of weakness; occasional syncope; as the disease advances the vomiting increases in frequency, and resembles coffee in colour, and there are accessions of hectic fever with great emaciation. It has frequently been observed in persons subject to great fatigue of mind, anxiety, &c. In a great majority of cases, there is a remarkable exanguine appearance in the countenance, even early in the disease."

In the numerous cases, related by Lieutaud, "vomiting was always present, and, in the greater number, acute pain was experienced in the stomach."

* The patient has observed some blood and purulent-looking matter in what was ejected from the stomach since the above statement was taken.

Vicq D'Azyr observes, "that it is worthy of remark, that as there is always vomiting when the seat of the malady occupies the pylorus, or its neighbourhood, so deglutition is impeded, or altogether obstructed, when the disease attacks the cardiac orifice."

Dr. Munro tells us, "that when the disease is seated in the stomach, there is great pain in the organ affected, with all the usual symptoms of indigestion, very frequent nausea and vomiting, and the occasional rejection of blood by vomiting, and that the patient dies completely exhausted."

I have thought it right to give you what are considered by distinguished writers as the characteristic symptoms of this disease, as it is an affection of comparatively rare occurrence, and often difficult to discriminate; and there is not a great deal of information to be found about it in any elementary work with which I am acquainted.

Our patient presents many of the symptoms above enumerated. The emaciation, epigastric soreness, and pain, shooting from the stomach to the back, vomiting at a regular period after eating, the indurated mass perceptible to the touch in the epigastrium, peculiar expression of the countenance, the long continuance of the symptoms, and the appearance of the dark matter in what was ejected from the stomach; all taken together, present a group of symptoms, which can scarcely be supposed to co-exist, independent of organic disease of the stomach. I do not mean, at present, to enter into any detail of the pathology or treatment of this affection, as I propose to refer to these subjects after the termination of the case; I merely wish, at this time, to direct your attention to the symptoms and diagnosis, in order to induce you to examine the patient yourselves, which always ought to be done by the student who is anxious to cultivate his powers of observation, and teach his eye and touch to investigate morbid affections. There is a certain incommunicable information to be acquired by the exercise of the senses of seeing and touching, as well as hearing, in the study of disease, which books or lectures cannot supply, but which the medical inquirer may, by a little industry, learn while frequenting the bed-sides of the sick. I shall be happy to give any gentlemen present an opportunity of seeing this case at their earliest convenience.

The next of our dispensary cases which appears to me peculiarly interesting, is one, I conceive, of an affection of the cardia, or of the œsophagus at its junction with this extremity of the stomach. The patient, Hannah B—, ætat. 50, presents the following symptoms:—her general appearance is pale and languid, but not much emaciated; she complains of an occasional pain and soreness on pressure at the scrobiculus cordis, the pain only felt on swallowing, with a feeling of obstruction at that spot, and a regurgitation of the food unaltered, mixed *only* with mucus, into the mouth, *without any sensation of nausea or vomiting*. This attack of epigastric pain, soreness, and ejection of food, only comes on occasionally; sometimes she is quite free from it for a week together, and, at other times, it continues to recur for four or five days successively, the food being ejected when it is taken. At which time she finds equal difficulty in swallowing solids and liquids. She states, that this affection is always relieved, and totally disappears for a time, after the operation of purgative medicine. She has been subject to this complaint, off and on, for the last two years. Tongue pale and clean, pulse 62, weak; complains much of debility; catamenia have ceased for some years; bowels confined; always enjoyed good health previous to this attack. I directed her to take some cathartic pills, composed of calomel, compound extract of colocynth, with a small quantity of extract of hyosciamus, to be repeated at intervals, so as to obtain a full purgative effect. This was kept up for some days; in a very short time the dysphagia and epigastric pain and soreness disappeared. I have seen her occasionally since; she has improved in her health and general appearance, and has had no return whatever of the complaint.

This affection, I think, originated from a spasmodic affection of the œsophagus, at its union with the stomach. The pain felt on swallowing, referred always to one particular spot, which corresponds with the situation of the cardiac orifice. The feeling of obstruction in the same situation; the immediate return back of the food unaltered, unmixed with the contents of the stomach, unattended with sensation of nausea or effort of vomiting, indicated that the aliment could not have been expelled from the cavity of the stomach, but must have been driven back by an inverted action of the muscles of the œsophagus, as soon as it arrived at the portion of this canal which was the seat of the spasm. That spasm, and not organic disease, was the morbid state, was sufficiently indicated by the intervals of perfect freedom from the complaint, and from all uneasiness in the part, which could scarcely be the case if there was any permanent lesion there. Mr. Smyly suggested, that probably there was a small spot of the cardiac extremity of the œsophagus in an inflamed or in a highly irritable state, which, when it became aggravated by any cause, was excited to spasmodic contraction, by the contact of the descending alimentary mass. This is not unlikely; but the existence of actual inflammation is not essential to explain the phenomena. Preternatural irritability, conjoined with a tendency to spasmodic action of this tube, would be sufficient to produce the effect which our patient exhibited. If this woman had not been so decided in stating that she was relieved by simple purgation, I should have probably exhibited anodynes and antispasmodics; and, if these means failed, have tried counter-irritation, or local abstraction of blood; but

I thought it most judicious to use the means in the first instance that her previous experience had proved to be successful. Probably the purgatives might have acted by producing a regular consecutive peristaltic action of the whole tract of the intestinal canal, which might have been communicated to the œsophagus so as to have resolved the spasm; or, if local inflammation to a small extent existed, the increased secretion from the intestinal mucous membrane might have removed it.

Dr. Munro, in a paper in the Edinburgh Journal of Medical Science, gives us some interesting information on this subject. He informs us, "that the affection is most frequent in females; and that the constriction occurs most frequently at the union of the gullet with the stomach." The symptoms he details are "a feeling of an extraneous body lodged within the œsophagus, accompanied by an ascent of air, the stricture preventing it going off by eructation. The food is either detained some time and then reaches the stomach, or is rejected as soon as it touches the spasmed part. There is often sudden loss of power of deglutition, accompanied by a sense of constriction in the fauces, which have a parched appearance. Great weakness and emaciation if the disease continues. The seat of the spasm can only be ascertained by the probang, which will be firmly grasped by the constricted part of the tube. The spasm of the œsophagus sometimes only lasts an hour or two, at others, for days, weeks, or years." Dr. Munro relates a curious case that occurred in the Royal Infirmary of Edinburgh. The patient was a young woman who had long laboured under epilepsy, succeeded by paralysis of one of her limbs, and imperfect vision of one eye. She then gradually lost the power of swallowing, and at length, upon attempting it, was seized with convulsive attacks. Soups and nutritious substances were introduced into the stomach by means of a tube, by which she was nourished for two years and eight months. She gradually recovered the power of swallowing, and enjoyed a considerable share of health. Having afterwards died of inflammation of the lungs, the œsophagus, on dissection, was found free from disease.

Hoffman relates a remarkable case of a man who, in consequence of excessive grief, was seized with spasm of the pharynx and difficult deglutition, together with a sense of a foreign body thrust down his throat. In the accession of the spasmodic contraction, he had shivering, constipation, formation of wind in the intestines, want of sleep, hard pulse, limpid urine. The disease lasted three months, with intervals between the paroxysms. The patient was cured chiefly by opii sedativus.

The cases we have been just considering are instances of purely spasmodic affections of the œsophagus unattended with any structural alterations; but this is only one of several morbid states to which this tube is liable. Mr. Macilwain, in his work on the diseases of mucous canals, has enumerated several morbid conditions of the œsophagus, which may give rise to difficult or obstructed deglutition, depending on organic disease: "Various degrees of thickening of its parietes may result from chronic inflammation; sometimes the diseased part is hard, and appears of a carcinomatous structure. In some cases the thickened portion is very small in extent, and the stricture is marked by an acute membranous edge. Fungous growth from its mucous membrane may also narrow the caliber of the canal, so as to render it almost impermeable. Ulceration may also co-exist with any of these morbid states."

Tumours in the vicinity of the œsophagus may also give rise to dysphagia; these may be caused by enlargement of the bronchial glands, or those of the posterior mediastinum; polypous tumours, growing on the inside of the œsophagus, or collections of matter behind this tube, or betwixt its coats; aneurism of the aorta; disease of the cardia; enlargement of the epiglottis, or disease of the larynx; paralysis of the œsophagus, connected with cerebral or spinal disease, may also prove a cause of this affection. Dr. Munro, in his work on the diseases of the gullet, enters largely into this subject, and is one of the best authorities you can consult on the pathology of the œsophagus. Several of these various conditions admit of relief or cure by different mechanical means, the application of which it is the province of the surgeon to explain, and I merely allude to those causes in order to impress upon your minds the necessity there is of keeping in recollection, when investigating a case of dysphagia, the variety of morbid conditions which may give rise to the one simple effect of impeded deglutition.

We shall now say a few words on the general treatment of spasmodic stricture of this tube, arising from inflammation, or morbid irritability. Our first object should be the removal of the inflammatory or irritable state, which may be effected by local depletion; by means of leeches applied along the tract of the œsophagus; purgatives by the mouth, or by enemata; counter irritation by means of blisters, or tartar emetic ointment; after which different combinations of narcotics and antispasmodics may be used, in order to relieve the spasmodic constriction; camphor, valerian, or castor, with or without opium, will be found most effectual. A plaster of ext. belladonnæ, applied over the affected part, will often be useful. The food should be light and nutritious, and consist chiefly of pulpy farinaceous substances. Bougies may be tried, if these means fail. Dr. Abercrombie relates a very remarkable case of "a lady, ætat. 40, who had been under treatment for more than a year for stricture of the œsophagus; various medicines and bougies had been employed without benefit; he at last tried an egg-shaped silver ball, attached to a handle of silver wire, which he directed to be passed occasionally

through the stricture; very much to his surprise, the affection was completely removed by four or five applications of this instrument: the patient continued well for more than a year, and then had a return of the complaint, which yielded readily by the use of similar means."

I shall now proceed to relate a case of constipation, on which I shall make a few comments, and then take a general view of this morbid state. This is a subject of great practical importance, and one which the physician is frequently called on to treat in private practice: the following are the symptoms which our patient presented.

Mary M., æt. 37, of rather a florid complexion, complains of pain in the right hypochondrium, and across the epigastrium; abdomen much swollen and hard, with some tenderness on pressure; pulse regular and weak; tongue a little coated; catamenia regular; bowels very much confined, only one dejection in two or three days, hard, and passed with much pain. I ordered her the following medicine:—

℞. Calomel. ex. colocynth comp. āā gr. iv.;
Extract hyosciam. gr. iii. m. ft.
Pil. ii. p. s. sumd. capiat mane haust. sequent.

℞. Ol. ricini ʒvj. tinct. sennæ ʒiss aq. menth. pip. ʒx. M.

A few days afterwards she reported that she had taken the pills the evening of the day she received them; that the following day her bowels were affected twelve or thirteen times, and that she had passed a chamber-pot full of dark coloured fæces. She did not take the draught till the second morning after the pills, it also affected her bowels five or six times. Her abdomen now is not nearly so much swollen. The epigastric tenderness is diminished, but there is still a slight degree of abdominal tenderness on pressure. I directed her to take pil. hyd. gr. v. h. s. et mane sequent. haust. ex. ol. ricini c. tinct. sennæ. She did not attend for a week after this, when she stated that she continued to improve while using the medicine, but that within the last few days she had pain in the back and side of the abdomen with some tenderness on pressure. I directed her to repeat the pills and draught, and foment the abdomen. A few days afterwards she complained of an aching feel, extending from one side of the abdomen across the back to the other. Bowels affected once a-day; some slight degree of abdominal tenderness; tongue red, with bitter taste; pulse 96, small; feels a coldness between the two shoulders and along the back; is sometimes hot and feverish at night; no thirst.

℞. Pulv. Doveri gr. vi. pil. hyd. gr. iv. M. in pil. ii. divided; h. s. sumend. mane sequent. haust rhei et magnes.

She continued the use of those medicines for about ten days, at the end of which time, she found herself free from all abdominal and epigastric pain and tenderness; no nocturnal pyrexia. Now only complains of nausea and vomiting in the mornings, after which she feels quite well, with an inclination to eat; no catamenia for six weeks. Thinks herself pregnant; bowels again confined; was directed to take two or three of the following pills occasionally:

℞. Pulv. rhei, pulv. scammon. āā gr. xii; sulphat. potass. gr. xxiv. M. fiat massa in pil. xii. dividend.

This was a case of constipation, probably originating, in the first instance, from deficient secretion of the liver and intestinal mucous membrane. This, I think, was indicated by the hypochondriac pain, coated tongue, constipation, and hard state of the feces when evacuated. When this deficient secretion had caused fœcal accumulation to a certain extent, the mechanical obstruction of indurated feces proved an additional cause of constipation; and the state of deficient secretion was kept up by the want of the usual stimulus of the peristaltic action of the bowels. After this fecal accumulation had existed a still longer time, the irritation caused by the continued contact of the hard fecal matter, and the suspension of accustomed secretions, probably produced some degree of partial inflammation, or preternatural irritability of the mucous membrane, which gave rise to the symptoms of the abdominal tenderness and pain. This latter state probably continued some time after the bowels were evacuated, and might have been a little aggravated by the irritation, caused by the evacuations; but it could not have been considerable, either in extent or degree, as it was removed by small doses of Dover's powder, and blue pill, with fomentations and mild farinaceous diet.

There were four morbid states co-existing in this case to be obviated; the 1st link in the chain was torpor in the secretions of the liver and intestines; the 2d, the mechanical obstruction of dry and indurated fæces; the 3d, the suspension or diminution of the usual intestinal peristaltic action; the 4th, the intestinal mucous inflammation, or irritation.

The remedial means I used had these four morbid states in view. I gave a moderate dose of calomel to restore biliary secretion, combined with some cathartic extract, to excite peristaltic action, and I guarded the effects of both from proving too irritating by three grains of extract of hyosciamus, which was an anodyne well suited to answer the end, as it was calculated to allay irritation, while, unlike opium, it does not constipate. I also ordered castor oil to be taken afterwards, in order to quicken and render more decided the effect of the pills, while by its lubricating quality, it was calculated to facilitate the passage of the indurated fæces, and to diminish the irritation they might cause in passing along an excited mucous membrane. It is said of this medicine by Bamfield, that "it is not

only a mild and effectual purgative, but that some of it passes undecomposed in its oily form through the intestines, and appears on the surface of the excrement; and hence it may serve as a sort of sheath or defence to a diseased intestine from the stimulus of fæces and morbid secretions;" from this property it is well adapted to cases of fæcal accumulation. The symptoms of mucous inflammation or irritation, which became more apparent after the constipation was obviated, were removed by the soothing and diaphoretic influence of the Dover's powders, assisted by the fomentations. Perhaps it may be thought by some, that it would have been an improvement in my plan of treatment, if in the first instance a small quantity of blood had been abstracted, either locally or generally, and if emollient enemata had been administered. With respect to the bleeding, I was resolved to employ it if symptoms became urgent, but I have been so much in the habit of seeing similar cases cured by mild purgatives, that I did not think it necessary, and I would have recommended enemata, probably, if the case had occurred in private practice, but among the poor, you cannot always get them properly administered, and I thought it likely the means employed would be sufficient for the cure, and the event realized my expectations; I think the patient is now pregnant, for the following reasons: the cessation of the catamenia, before regular, and the morning sickness and vomiting, followed by an inclination to eat, unattended with any other dyspeptic symptom. The pills I ordered are well calculated to preserve a soluble state of the bowels, without irritating. There is one precaution to be observed in cases of constipation, which is, not to attempt to force the evacuations of the bowels in the first instance by large doses of strong purgatives; such means may occasionally succeed, but they may also fail of the effect desired, and then do much harm by the irritation which they may occasion. It is always better in these cases, to endeavour to restore secretion, and solicit, as it were, the peristaltic action, by thus affording the intestines their natural stimulus.

The case just recited affords an instance of constipation arising primarily from deficient secretion, but this effect may originate from other causes, and require different modifications of treatment, in order to effect a cure.

Constipation may originate from deficient action, arising from defective strength; this perhaps may be inferred to be the cause when the health is in other respects unimpaired, but the bowels cannot be kept regular, except by the constant exhibition of purgative medicines; in such cases, Mr. Howship advises us to give medicines calculated to restore tone, such as the decoction and tincture of bark, either alone or combined with infusion of senna; and he tells us that by these means he has succeeded in a variety of instances in restoring a healthy action of the bowels, without the constant use of purgatives; and I have known Dr. Thwaites succeed in a case of obstinate constipation by the exhibition of the carbonate of iron. This is a circumstance which well deserves being kept in recollection by the medical practitioner, as no doubt constipation originates from this cause in some cases, though I believe that deficient secretion is the most frequent cause.

Intususception, or spasmodic contraction of some part of the intestinal canal, sometimes gives rise to constipation. Where it can be discovered, injections of tepid fluids, or oil, or the tobacco enema, venesection, and the warm bath, will be the most efficient means of relief.

Paralytic insensibility of the bowels, originating from cerebral disease, has caused this state. Stimulating enemata, containing turpentine, and more active purgatives by the mouth may be used than in any of the preceding species.

Constipation has been caused by alvine concretions, which may be either biliary calculi, which have increased in size after they have got into the bowels, or they may be formed primarily in the stomach or intestines, and attain a large size before they prove a cause of obstruction. But as a very detailed account of those foreign bodies is given in the article alvine concretions, in Cooper's Surgical Dictionary, it would be unnecessary for me to do more than refer you to this work for information on this subject.

Of all causes of constipation, the most frequent is that which I conceive to have existed in the case just recited, namely, a deficient secretion from the intestinal mucous membrane, and from the glandular organs whose excretory ducts open therein, particularly the liver; and the most efficient treatment will consequently consist in such means as restore these secretions; this is the way in which purgatives themselves act, but every stimulus gradually loses its power by exhausting the excitability of the parts, and consequently the dose will require to be augmented on each repetition to produce a given effect; the radical treatment therefore should be on more general principles. Of all remedial means, exercise is one of the most important, being one of the greatest promoters of the internal as well as the cutaneous secretions; it is most beneficial when conjoined with early rising, and taken before breakfast, and will be often in this way sufficient to establish a healthy action of the bowels. An attention to habits will materially assist, by endeavouring to procure an evacuation each day, at that time the bowels are found most frequently to act. These three means conjoined will often be sufficient to produce the desired effect without the assistance of medicine; but when other means are necessary, the mildest should first be tried, before having recourse to more active measures. The use of a diet, found by experience to prove laxative, may be adopted; the dif-

ferent preparations of oatmeal are very generally used, and they sometimes have the effect of maintaining a soluble state of the bowels; where they do not succeed, however, they may prove injurious, as there is reason to suspect they occasionally give rise to alvine concretions. Brown bread, and the moderate use of ripe fruit, will often answer; a draught of warm water, taken immediately after rising in the morning, on an empty stomach, has been sometimes found useful. Where these means fail, the use of enemata, composed of tepid water, in which a little soap is dissolved, will produce a good effect; it empties the rectum and lower portion of the colon, while the action of the rectum appears to be communicated to the upper portions of the intestines, and thus a general progression of the fæcal remains effected. When medicines by the mouth are necessary, small doses of blue pill at bed-time, and a little Epsom salts, or a draught of rhubarb and magnesia, or castor oil and tincture of rhubarb or senna in the morning, may be given occasionally with advantage. The use of the warm or cold bath is sometimes of great benefit, by restoring a healthy action to the functions of the skin; the secretions of the abdominal glandular organs are excited by sympathy, provided that an excess of cutaneous secretion is avoided; for if this should take place, the reverse effect would be produced.

I have thus given an outline of the most efficient treatment in cases of constipation, which may be considered applicable, not only to this morbid state, when it exists uncombined with any other malady, but also to this state when co-existing with any other morbid affection, particularly with the various forms of gastric and hepatic derangements.

THE NEW SYSTEM OF THE PRACTICE OF PHYSIC.

Dr. GILCHRIST, a gentleman educated for the medical profession, but who abandoned it for the study of the eastern languages, has sent a circular of a very curious nature to the scientific periodicals, and to this; from the peculiarities of the circumstances, we can have no objection to give a few extracts. It should be, however, understood, that Dr. Gilchrist, though one of the most accomplished linguists of the day, has never been looked up to as an authority upon any subject. He has been generally ranked as an enthusiast in his views in politics, and in those general subjects which come before the public. He has often given his opinions to the world on different occasions, and they have been more marked by originality than by judgment. He is not one of those cool and reflecting men who, after deep reasoning, come to sound and just views, but he is too apt to be led away by the vividness of his own imagination, and the natural warmth of a quickly excited temperament. He has been justly respected for the ponderous volumes on oriental learning, which he has brought forward, but, as a judge upon the question now before him, we think him as likely to be influenced by the bold assertions of the adventurer, as any of the credulous victims of quackery and deceit, whose unsuspecting nature is daily and hourly practised on.

The following is an extract from Dr. Gilchrist's letter, containing his account of the new system of physic proposed by Dr. Hahnemann, at Anhalt, Cothen. *Credat Judæus appella, sed non ego.*

"He terms it homœopathy, in opposition to the old prevailing doctrine of ancient and modern physicians, which he discriminates from his own under the name of allopathy: the first is connected with the maxim *similia curantur similibus,* and the last on the idea of *contraria curantur contrariis.* The former notion may be demonstrated by the curative application of heat to scalds and burns; the latter, by rubbing frost-bitten limbs, noses, &c. with ice or snow. Copper, in large doses, is well known to produce a species of artificial cholera, while the best antidote to the natural disease appears to be that very metal, or chemical preparations of it, in the minutest possible quantities. Habitual vomiting is cured by hardly visible fractions of one grain of emetics, seasonably repeated. The virulence of the small-pox is likewise prevented by inoculation or vaccination, on a similar theory, namely—*similia curantur similibus.* All medicines which, in persons of sound health, are found in large doses to

cause peculiar symptoms or apparent diseases, *pro tempore*, may be administered, in the minutest fractions, against those very evils with astonishing safety, as already stated, on the score of ultimately relieving vomiting by emetics. To these a large list of such coincidences may be seen in the homoopathic publications, procurable at Bailliere's, No. 219, Regent-street, London, and at his shop, Rue de l'Ecole de Médécine, Paris; likewise at Abraham Cherbullier's, Geneva. Allopathy, contrasted with homoopathy, may be elucidated by the familiar expedient of trying to relieve burns or scalds by cold or cooling external prescriptions, and frost-bitten parts with heat of any species.

"Allopathy, of course, rests on the old axiom of *contraria curantur contrariis*, a maxim which also may be changed to *dissimilia curantur dissimilibus;* but, as this opinion belongs exclusively to the method which Hahnemann and his followers are endeavouring to explode, I shall once more refer you, gentlemen, to the booksellers in London, Paris, and Geneva, who sell the whole of the homoopathic works, and may be able and willing to furnish the most ample information concerning the new system of physic, which I have good reason for thinking will speedily be found amongst the greatest discoveries of the present age. In short, gratitude bids me hail it as the gospel of medical salvation, whose genial balm of Gilead may be collected from Hahnemann's Organon, which I at least can justly call the New Testament of my medicinal faith in the healing art, according to his established theory, constructed solely upon his most conscientious practice and experiments of a singular description, that were made on his own person, for the space of thirty years, and since confirmed by his various proselytes, among whom one of the most zealous and intelligent, Dr. Ch. G. Pechier, of Geneva, has recently commenced with me, who have been under the hands of very celebrated and generous allopathists for *six* revolving summers, but all in vain: so *many* weeks have not elapsed, and I already feel the homoopathic remedies acting more like a spell than ordinary drugs, though the dose taken once in eight days is not so much as a very moderate pinch of snuff. Three months ago, my weakness was often so great as to prevent my moving easily from one room to another; while now, after taking four only of the hebdomadal prescription by Dr. Pechier, I am able to walk without a single halt from twelve to fourteen miles, and this is really a feat which would have been with difficulty performed when I was a lad of sixteen. From a state of constant low spirits, I have become all at once as light and gay in body and mind as a sky-lark, and feel myself hourly soaring, on the pleasures of hope, to reach my wonted state of health and strength by the end of this month, or, at farthest, the next, making an allowance of three months for the complete restoration of all my corporeal and intellectual energies, that have been almost wholly suspended since 1827, when I was first seized with a nervous hypochondriacal species of indigestion, or dyspepsia, that has haunted me with a long string of horrors, nicknamed *blue devils*, in its train, until fairly exorcised by the potent charms of Hahnemann's peerless Organon, and the interventional aid of Dr. Pechier, and his countryman Dr. Convers, jun., of Vevey. The medicinal foundations of homoopathy are solid and simple in the extreme, none of the recipes containing beyond one operative ingredient united with another inert vehicle, merely for the convenience of administering a pill, not larger than a single mustard seed, a powder like one minute pinch of snuff, or a liquid dose of medicine, seldom exceeding a few drops; but the whole are the concentrated essences or pith of each drug. They are generally so tasteless, that the patients, however delicate their stomachs may be, swallow them all without the least aversion or nausea afterwards. The effects of such substances

rarely become distressing to the invalid; on the contrary, he frequently recovers without knowing, as in my own case, how, when, where, and why they act their several parts in the subsequent disappearance of every preceding symptom of indisposition. The whole of the homoopathic medicaments are selected and prepared with such scrupulous attention to their quantity and quality, that Hahnemann and his more rigid converts, rather than confide the progressive processes of weighing, measuring, triturating, and so forth, to other hands, perform them with their own, conscientiously and exactly, to the lowest fractional part of a grain, drop, &c., ingeniously rendered subdivisible nearly *ad infinitum*, in order to obviate the fatal results that might otherwise occur by the use or abuse of the very quintessence of the rankest poisons hitherto admitted into the materia medica of modern practitioners, and all these pains have been taken commonly with miraculous success. These assertions are daily being corroborated by hundreds of witnesses in different and distant places all over the continent of Europe; and it is known to myself personally, that neither mystery nor fraud exists in the homoopathic *modus curandi:* were it otherwise, this grand radical reform in medicine would have been detected and exposed by the innumerable enemies of a pervading system, that will inevitably put their daily bread in the utmost peril, unless they wisely and seasonably become homoopathists themselves, to prevent such a catastrophe as the mere perusal of the far-famed Organon will incline every judicious reader to predict.

When by chance any drug produces some unpleasant effect, there always exists a definite antidote with which all well trained homoopathists know how at once to counteract such sinister accident. Hahnemann asserts that the majority of chronic complaints arises from some, often hereditary, prurient and psoric condition of the blood, and other humours of the body, whose existence is, with few exceptions, betrayed by eruptive, cutaneous, and glandular affections, such as itch, erysipelas, ring worms, tetters, scab, morphew, scurf, scrofula, leprosy, yaws, cancer, whitlow, biles, superficial tumours, ulcers, mumps, and in all probability the entire class of collateral evils. This constitutional taint or venom, whatever it may be in reality, must in the first place be subdued by the homoopathic antipsoric prescriptions, which experiments and experience have proved in thousands of patients to be amazingly efficacious, and they have thence been, like me, restored to comparative vigour as it were by enchantment, with the subservient help merely of wholesome diet, temperance, and regular pedestrian exercise.

The homoopathists commence their proceedings by forming a laborious, faithful picture of the invalid's sufferings in that character, from the year of his birth, and occasionally with a short sketch of his parents' temperaments, state of ordinary health, and those outward appearances which might indicate how far the valetudinarian himself or they are to blame for his existing disorders, that these may forthwith be managed *secundum artem homoopathicam.* This Herculean task for physicians in large towns, and in extensive employment there, was immediately accomplished, by the aid of a circumstantial narrative, forwarded from me at Vevey to Geneva, for Dr. Pecheir, to our mutual satisfaction, and my own subsequent convalescence; and although rather sceptical of a salutary result at the beginning of our correspondence, my faith in his integrity and skill became, from conviction, so strong, that I have not even asked to know the name of the medicine he sent to me by post, farther than this, that its nature is antipsoric, the colour white, the taste sweetish, its bulk a pinch of snuff, carefully to be placed on the tongue only once a week, after barely rinsing the mouth with tepid water,

which helps to dissolve the powder, too small to be perceptibly swallowed, and impalpable enough to be absorbed by the lingual papilla, or adjacent parts. To remove the habitual constipation, which has been tormenting me for years past, the doctor advised me to try the white mustard seed, as it neither was easily digested nor was it possessed of any medicinal properties to interfere with his homoopathic recipe, the seed acting solely on the bowels mechanically, and I perceive, by a month's trial of it, that he was quite correct. The dietetic restrictions are far from being severe, except against tea, for which the substitute is a weak decoction of the cacao pellicle, with milk and sugar, twice a day, and I find this beverage excellent in every point of view. I am permitted to eat tender beef, mutton, certain fowls, game and flesh, rice, and all the farinaceous grains usually employed in making simple puddings, gruel, &c. Wine and spirits, unless absolutely necessary, are to be taken in small quantities; he interdicts their being used freely, and recommends toast and water, or sugared water, as the most wholesome drinks. Mealy potatoes, stewed fruits, and jellies of certain fruits, viz. currants, raspberries, &c. are permitted, but no spices, aromatics, coffee, chocolate, or heating things of any species, are sanctioned by the homoopathists in chronic maladies, where the nerves are agitated and the spirits dejected to the degree that mine have so long been, and which hundreds of my friends and fellow sufferers, whom I have encountered in my continental travels, are still labouring under, and will continue to remain so till they escape from the unavailing efforts of the allopathists to set them on their feet again, with *mens sana in corpore sano,* which the disciples of the indefatigable Hahnemann might effect within the compass of half a year at most. The dissemination of homoopathy has been so tardy, that for humanity's sake I fervently trust the free, liberal press of London will simultaneously assist me in the present attempt, for which purpose, I have beseeched a few active generous persons on the spot to prevail on the proprietors and editors of the daily papers to permit this appeal to the faculty, as they so disinterestedly did while the cholera was lately so destructive; for the press is, indeed, to the immediate and universal diffusion of important knowledge, similar to the famous *fulcrum* demanded by Archimedes, to enable him to raise the whole world at his will.

THE

London Medical & Surgical Journal.

Saturday, April 6, 1833.

THE NEW OBSTETRIC BOARD.

It is astonishing to observe the change of opinion that has recently taken place in our medical corporations, on the subject of obstetricy. Five short years ago, neither physicians, surgeons, nor apothecaries could be prevailed upon to examine into midwifery, and this refusal led to the establishment of the Obstetric Society, which would have succeeded had Sir Robert Peel remained in office. The Edinburgh University and the Dublin College of Surgeons, with great credit to themselves, recognized the study of obstetricy, and set an example to the London corporations, which, even though late, they are compelled to follow.

The Apothecaries' Company are entitled to the merit of having appointed the first examiner on midwifery, and the College of Surgeons have at length determined upon a similar proceeding, because they con-

sider, that the absence of the Hall Examiner must necessarily be of frequent occurrence, and therefore the appointment is insufficient. With this conviction, they intend to form a Board, consisting of two examiners, according to some, and of six according to the majority of the college council. The number ought to be four or six at least, because one or two of the court will be often absent. The Dublin Obstetric Board consists of six private lecturers on midwifery. This is a proper selection, for if the lecturers in the large schools were appointed, they would monopolize the whole teaching of obstetricy, and this would be giving them all advantages, and committing a gross wrong on the private teachers. We are satisfied, that the College of Surgeons cannot sanction such a proceeding. They can either appoint members of their own body who have lectured, or physicians who have ceased to lecture, if they object to follow the example of the Dublin College. But the appointment cannot be creditably filled by those, however extensive in practice, who have not been lecturers; for we agree with Professor Dewees, that a practitioner of thirty years' standing, however experienced, without having first acquired a correct knowledge of the anatomy, physiology, and pathology of the pelvic viscera, must be totally unfit for the management of the numerous difficulties he will have to contend with, and most assuredly he must be an incompetent examiner. We firmly believe that there are obstetric practitioners of the greatest experience amongst us who are totally unacquainted with the fundamental principles of obstetricy, and this position is easily explained by the fact, that examinations in midwifery were not required in these countries until the present time. We therefore contend, that the new board should consist of those who lecture, or have lectured, or have distinguished themselves as original writers on obstetrics. The notion of appointing others, who may be in extensive practice, and whose names are unknown outside the metropolis, would ill-accord with the spirit of the times, or with the usages of all the other medical institutions in the civilized world. We trust, likewise, that private interest, colleagueship, and so on, will not prevail, for these are despised by the whole profession, with the exception of those interested in the tolerance of such abuses.

MEDICAL SOCIETY OF LONDON.

Monday, April 1st.

WILLIAM KINGDON, Esq. President, in the Chair.

On the injurious Effects of Tea and Coffee.

THE Minutes of the last meeting having been read and confirmed,

The President announced that the Society would be happy to hear medical intelligence, or the narration of cases; but if none were offered, he deemed it right to state, that a Fellow of the Society had, at his suggestion, presented a short paper "On the Injurious Effects of Tea and Coffee." He was aware that he had incurred a certain responsibility in requesting his friend to furnish the paper, but his object was to promote the interests of the Society.

Mr. Field inquired whether the paper was approved by the Council, as otherwise it could not be received.

Mr. Howell objected to anonymous papers.

Dr. Ryan thought it perfectly immaterial who was the author, as the President had declared he was a Fellow. Moreover, he had read the paper, and deemed it worthy of introduction.

Mr. Honeywood proposed that the paper be read, and Dr. Ryan seconded the motion.

Mr. Proctor objected to it as an anonymous production; hoped that its author would get over his modesty, and not play the part of the Great Unknown.

Dr. Shearman took a similar view, and maintained that all papers should be submitted to the Council in the first instance.

Dr. Whiting and Mr. Bryant followed on the same side.

The President observed, that he was to blame for having introduced the paper, perhaps in an irregular manner, but his object was to promote the welfare of the Society; however, he begged to withdraw it, with the permission of the mover and seconder of the motion.

Mr. Headland remarked, that he knew the author of it, on whose statements the fullest confidence might be placed; but if the paper were withdrawn, it would be for the writer, who was in the room, to avow it or not.

Mr. Cole then announced himself as the author of the paper, and had no objection that it should be read, if the Society thought proper. *(approbation.)*

Mr. Headland, secretary to the Society, then read the paper, with his usual clearness and accuracy: the chief points of which were, that the excessive use of black or green tea and coffee in debilitated subjects, produced pain, and a sense of emptiness in the stomach, palpitation of the heart, vertigo, convulsions, and even insanity. Several cases in illustration were detailed.

Drs. Shearman, Uwins, Cholmondley, and Whiting, Mr Proctor and Mr. Stevens, maintained that a moderate use of tea was salutary, and that its bad effects were produced on diseased subjects.

Mr. Cole replied, that he was aware of its good effects on healthy subjects — there could be no difference of opinion on that point; but his object was to point out its evil consequences on the delicate and infirm. The time of meeting having expired, the Society then adjourned.

[It appears to us, that there was much to condemn in the opposition given to the paper in the first instance. No doubt its introduction was contrary to the laws of the Society; but among all its Fellows, there has not been a more strenuous friend than the present President. Were we to speak plainly, we should say his opponents would appear to be disputing, *de lana caprina*. Tastes differ—*trahit cuique sua voluptas*. But the age of nonsense has gone by. *Verbum sat*. It is right to mention, that there are two classes of Fellows in this Society: those who speak eternally, in order to have their names appear in the periodicals, and those who will not speak at all, lest their names should appear. The majority of the latter would furnish valuable papers, provided their names were not mentioned; but this cannot be digested by others.]

THE GLASGOW MEDICAL SCHOOLS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—Being a pretty constant reader of the London Medical and Surgical Journal, and having derived much valuable instruction from the clinical lectures which have, from time to time, been reported in its pages, I am induced to send you a few remarks on the mode in which this species of instruction is taught

here, and more especially as I believe little is known of it out of the city. In fact, from what I have frequently heard, I should almost say, that Glasgow, as a medical school, is not at all respected as it ought to be; and have only to inform you, however, that there are no less than three seminaries, in all of which the different branches of medical science are taught, namely, the Old University, or College, and two rival establishments, or private schools. In the first-named institution, every thing is taught but forensic medicine; on which subject, however, prelections are given, as well as on the different other departments, in Anderson's University and in the medical school of Portland-street. The former of these, although named an university, is strictly a private school; the professorships are not endowed, but quite the reverse; for I understand they have all got to pay rent for the premises they occupy. It bears the name of Anderson's, or Andersonian, in honour of a Professor Anderson, by whom it was founded. He was Professor of Natural Philosophy in the College, and, at his death, bequeathed the whole of his apparatus for the purpose of founding such an institution. I am informed, it only took the name of university subsequent to the London University. The gentlemen filling the different situations in these seminaries are all highly respectable; but as no doubt some excel others in the art of teaching, I shall defer entering on their individual merits till another opportunity, my chief object for the present being the hospital and clinical instruction. Glasgow, then, can boast of an hospital for beauty of architecture, as well as internal arrangement and discipline, not to be surpassed, I understand, by any in the united kingdom. This is the chief prop of its medical school; for once curtail the advantages to be derived from attendance on it, and the school will either sink or suffer materially. The medical department is superintended by Drs. Millar and Balmano; the former is the regius professor of materia medica in the College, and, being now advanced in years, he has been confined since the commencement of February, when he had just begun his share of the clinical lectures. Dr. John Couper, said to be his likely assistant and successor, provided the government of the country be disposed to listen to a private arrangement between the two, has officiated for him, and the students are in no ways dissatisfied. The fact is quite otherwise, for while Dr. Millar made a very hurried visit, seemed inattentive, or at least said nothing to them, Dr. Couper, on the other hand, frequently makes clinical remarks which are appreciated by all. Dr. Balmano, the other physician, gave the clinical lectures during November, December, and January, and still, in consequence of Dr. Millar's indisposition, continues to deliver one per week. This gentleman always makes a lengthened visit, and is in no ways deficient in his remarks on the different cases and their treatment. He is, therefore, deservedly a favourite. If he were not to take offence, none being meant, I should like he were to be less prosing, or rather lengthy in his details; sometimes I cannot help thinking he is apt to dilate on trifles to the neglect of the strong holds of a case, which are more cursorily treated. His remarks are good, and he is estimated as a useful instructor. He seems to be a stethoscopist, and talks much about his mode of detecting uterine affections by manual examination, with one finger in the anus and another in the vagina, by which means he weighs as it were the organ. A few very interesting cases of this description have occupied his attention, of which I may afterwards send you the particulars. One chief objection I have to the worthy Doctor is, that he prescribes by far too many medicines. He is tall, well-looking, and has a very dignified appearance, and answers, in many points, to what the physicians were in former times, and I have no doubt their characters he has carefully studied. I understand

he also fills the situation of physician to the Lunatic Asylum.

The surgical department is under the superintendence of Dr. Auchincloss and Mr. Stirling, the former of whom is the senior surgeon. Both gentlemen are lecturers in the school of medicine, Portland-street ; Mr. Stirling on anatomy, and Dr. Auchincloss on surgery. I merely mean to speak of them as hospital surgeons. From the way in which Dr. A. goes about his work, one can easily see that every thing is familiar to him. This gentleman I have followed very constantly in his visits, and of course am prepared the more readily to speak of his merits and defects. I feel it no more than my duty to say, and in doing so I am not conscious of going beyond the truth, that he is quite the person who ought to be placed in an hospital, for the instruction of the students. Whenever a case is admitted, after having the report read to him by the clerk, and having made an examination of the different symptoms, he gives us the opinion he has formed of its nature, the medicines he means to prescribe, and the effects he expects from their use. Little, if any thing, in fact, escapes his notice in the wards. But it is in the lecture-room that he chiefly shines forth, for he is unquestionably pre-eminent as a clinical teacher. His prelections are all extemporaneous. In the first place, he goes over the facts of the case, either from the journal or from memory ; secondly, he explains, at greater length, his reasons of practice, and, if an operation has been required, the reasons for undertaking it, with the manner of doing so, and the difficulties experienced, or to be expected; thirdly, the striking peculiarities of the case under review ; and lastly, the opinions of the different eminent individuals who have treated of the disease in question. His remarks are all highly practical, never for a moment indulging in theory. His illustrations are as happy as they are varied in their nature, and even tend to impress the facts of the case more closely on one's attention. What he says, therefore, is easily understood, as it seems his great wish, evidently, that it should be so. He has a very extensive collection of healthy and morbid preparations, besides numerous models of natural and diseased structure, which he exhibits to aid his illustrations. The most of the cases he seems to have models of.

At the commencement of the course, only one clinical lecture, as in former years, was given every week ; or, in other words, one by each surgeon every alternate week, or once a fortnight. On a representation being made, however, to Dr. A., it was agreed by Mr. Stirling and himself to give two every week.

The doctor has happened to have had a great many very interesting cases under his care, and finding that he was not able to overtake them all by one lecture per week, he has regularly given two, while Mr. S. has given one ; so that the students now get three instead of one, and have got them since the latter end of December. To these gentlemen, therefore, too much thanks cannot be awarded, and more particularly to Dr. A. ; and it is earnestly to be hoped, through their example, that that number will in future be continued. The attention of the former gentleman to the interests and advantages of the students is highly praiseworthy ; yet he seems rather to despise than court their applause. I should say it was quite the reverse, for he never permits, but instantly checks, such a thing as speaking in the wards, or any other thing tending in the least to disturb the proper business of the visit: thus I have heard him sometimes make very severe censures on the conduct of students in this respect. Although a disciplinarian, in the true sense of the word, he is nevertheless exceedingly easy of approach, and is never backward, even to a degree of familiarity, in explaining whatever is asked of him. He is very successful in his cases ; and his attention to the patients is constant and what it ought to be.

Mr. Stirling is exceedingly well-liked as a surgeon: although naturally austere in his appearance, he is affable and in every way pleasing in his deportment. He is perfectly different from Dr. A. in the manner of performing his hospital duties. He makes fewer remarks on the nature of the cases, and he has not the way of investigating disease like the other. As a clinical lecturer he is decidedly inferior. The information communicated is rather different from that by Dr. A., yet his uniform wish to advance the interest of the students is apparent and highly commendable. He is considered a good operator; he is more rapid in execution than his colleague, but not neater; and, unfortunately, as cases have happened, much less successful.

I have got notes of the various lectures, a few of which I will send you, should you consider them worthy of insertion. Dr. A. has lectured on a great variety of topics. Of late, having had a number of urinary cases, such as retention of urine from stricture of the urethra, from stone impacted in urethra, from inflammation of prostate, from inflammation extending back to neck of bladder, as a consequence of gonorrhœa, and from ruptured urethra, he has favoured us with two or three successive lectures on these interesting subjects. Lastly, he also lectured on two cases of concussion, and two of compression, of the brain, one lecture succeeding the other. About twelve days ago, he operated on a case of calculus, and on the following day gave a most splendid lecture, in which he went over, in detail, the whole of the minutiæ. The facts of the case are the following:—A man, 31 years of age, was admitted on the 1st March; he had laboured under the usual symptoms of stone in the bladder from infancy; his complaint had been greatly worse for the three last years, and during that time he suffered much from pain in the loins. On admission his stomach and bowels were slightly disordered, and his bladder was exceedingly irritable, he having made a journey of 36 miles on foot to come to the Infirmary, which he accomplished in the space of three days. The irritability of the bladder having subsided by the use of opiate enemata, and the occasional use of the warm hip-bath, and the appetite, &c., improved by a few Plumer's pills, with a light bitter infusion, the lateral operation was performed on the 14th, when a calculus was with some difficulty extracted, in consequence of its great size. It weighed exactly ʒiv., and measured in its long circumference $6\frac{3}{4}$ inches, by $5\frac{3}{4}$ in its shorter. The man lost a considerable quantity of blood, and has not had an unfavourable symptom since the operation. The other particulars I will give you in my next. The two last lectures were occupied with a description of the different instruments belonging to the hospital used in surgery, with a statement of the persons by whom they were invented, their uses, and the principles on which they ought to be employed. He described very particularly those used in the operation for stone. I cannot conceive any thing more interesting. He has still got a number to go over yet.

I am, sir, your obedient servant,

VERITAS.

Glasgow, March 23, 1833.

Review.

The Dublin Journal of Medical and Chemical Science, exhibiting a Comprehensive View of the latest Discoveries in Medicine, Surgery, Chemistry, and the Collateral Sciences. No. VII. Vol. III. March, 1833. Two Plates. Dublin: Hodges and Smith.

The present number of our respected contemporary contains its usual quantity of original information. The first paper is entitled "Notes on Cholera, by Mr. M'Coy." He affirms, that the consecutive fever, described by writers, is by no means a legitimate consequence of cholera, but is induced

by the stimulating plan pursued by some in the treatment of the original disease. Such is the result of the writer's experience. He comments on the numerous remedies employed in cholera, and he concludes that all are useless or injurious, except mercury, which, by the by, accords with the recommendation of Mr. Serle, in his account of the cholera at Warsaw. Mr. M'Coy concludes his notes as follows:—

"I shortly after began the treatment of cholera with calomel, to the total exclusion of all stimulants; the form in which I gave it was mixed with about a third of white sugar, put dry on the tongue, and washed down with a *small* quantity of cold water, for a good drink might cause vomiting, which of course, immediately after the medicine, would not be desirable. The dose I began with was ten grains every hour, or five grains every half hour, but I soon found this insufficient, and as I proceeded in the plan, finding there was no cause to fear present or remote injury from it, I ventured ten, fifteen, and even twenty grains every hour or half hour, as the urgency of the case demanded. The three first collapsed cases, in which I tried these large doses, took these several quantities before they were sufficiently recovered to suspend its use: James M'Entee, 440 grains of calomel in 68 hours; Mary Byrne, 360 grains in 84 hours; Mary Burke, 276 grains in 13 hours; Jane Brady, a delicate girl, who had suffered all the privations of poverty, took 428 grains in 28 hours. I give these as examples of cold pulseless cases, with copious rice-water vomiting and purging, and blue extremities. My limits will not permit me to give cases in detail, but I have noted thirty other cases of a similar description, equally successful. There is but one kind of case which I have hitherto found to resist calomel, and that is one where nothing to my knowledge can be relied on for success; the patient is struck suddenly with complete prostration of strength, he lies as if asleep, his stools are involuntary, and *there is no vomiting;* he is deadly cold and without pulse; his skin is generally blue and clammy, but many are pale, and in some the skin is dry; they are rapid in their course. This is the kind of case in which I have repeatedly tried powerful emetics often without success; in one I succeeded in exciting vomiting, which produced an astonishingly good effect, but a glass of brandy with cinnamon water was given him sometime afterwards, and he immediately relapsed into his former state, and soon sunk. From these large quantities of calomel in a limited time I have never seen mercurial eruptions, erythismus, dysentery, profuse salivation, or any one of the many other ill consequences resulting occasionally from mercury. The gums are often barely touched; sometimes there is a slight flow of saliva for two or three days; the soreness of the mouth is generally felt in from 40 to 70 hours after the first dose, and in a week there is seldom a trace of it remaining. When re-action is established, the pulse has sometimes become too rapid and full, and the countenance rather flushed; a single active cathartic removes these, and then the mouth becomes affected. I have had five cases where a constant and troublesome hiccough came on, when the pulse and heat of skin returned after the collapsed state. I tried, with the first of these, a mixture of rhubarb and magnesia, then a blister over the stomach, and several other things, without the slightest benefit; twenty drops of diluted sulphuric acid in a cup of water, every hour, succeeded in it and all the subsequent cases, in from the second to the fifth dose. The first stool, after that of the rice-water kind has ceased, is generally (in the calomel treatment) of a grayish colour and without fetor; the second, or at farthest the third, discovers bile. I allow the patients their favourite drink, cold water, but as they improve and relish it less, I substitute often cold weak beef tea, carefully deprived of every particle of

floating fat. The first flow of urine appears generally with the first or second gray stool, [could oxide of mercury give this hue?] Under this treatment every symptom I have noted of cholera disappears; the least of fever or debility has not followed in a single case I thus treated. The recovery is perfect in from two to four days."

The second paper is deeply interesting, and therefore we quote it in full. "Observations on the Motions and Sounds of the Heart. By David C. Nagle, A.B., M.B., one of the Physicians to the Dublin General Dispensary."

"David Connell, a servant, aged 18, affected with ascites and anasarca of the lower extremities and face, was admitted into Sir Patrick Dunn's hospital on the 16th of November, 1831. Requested by some of the pupils to examine the patient's heart, I found him labouring under a distressing dyspnœa, with a hard dry cough, aggravated on the slightest motion. When agitated or suddenly raised into a sitting posture, he suffered much from violent palpitations of the heart. His face was pale, but the expression of countenance calm and not indicative of anxiety: his respirations averaged 36, and the pulse varied between 80 and 100. The palpitations commenced, as I was informed, about two years previous to his admission, and in consequence of a fright; and for some time there was felt in the region of the heart a pain, from which he experienced much relief by the use of medicine. On applying the stethoscope to the region of the heart, I was astonished at the extraordinary energy of the impulse, and the loudness of the bruit de soufflet. The former impelled the cylinder against the ear with a force rapid, unusually energetic, and synchronous with the *commencement* of the soufflet and the arterial pulse at the wrist and temple. The cylinder, laid upon the spot, was observed to be elevated very sensibly at the instant of the beat in the arteries. The impulse at the chest was thus perceived by the ear and eye to be synchronous with the arterial pulse. The bellows-sound was louder than any I ever witnessed, even in cases of utero-gestation: it was audible, not only over every part of the chest, anteriorly, posteriorly, and in the axillary regions, but over the entire epigastrium; it was also occasionally remarkably prolonged. From its great importance in the diagnosis, I traced it with peculiar care to the point of loudest intensity, which I found to be nearly at the fourth rib of each side anteriorly. This, then, I naturally considered the centre of radiation. The soufflet entirely usurped the place of the first sound, was prolonged to the second, which it completely masked, and by which it seemed to be abruptly terminated; and then not a vestige of it or any other sound could be heard by me and others, between the second and first sounds of the heart. The soufflet was perfectly synchronous with the arterial pulsation and cardiac impulse. The rhythm of the heart's actions was frequently interrupted by a very prolonged intermission between the second and first sound, or, according to the old theory, between the contractions of the auricles and ventricles. Towards the termination of that intermission, the ventricle was perceived by the ear to rise slowly to the parietes of the chest; then expanding, as it were in preparation for a more violent effort to contract effectually, its systole, the soufflet, and the arterial pulsation, all, all commenced at the very same instant, and with augmented energy. For this important phenomenon I watched, and marked it with especial attention in consequence of its diagnostic value. When the patient was composed and in the recumbent posture, the palpitation ceased altogether, and the impulse was confined to a narrow space in the natural situation. There was no pulsation of the jugular veins; no lividity of the face; no hæmoptysis; nor impulse on the right side, or inferior part, of the sternum. Between the arterial pulsation and the impulse at the chest, I

considered there was, in strength, a slightly unnatural disproportion; and the cardiac impulse conveyed the idea of its having been produced by a *rigid* substance. In the following diagnosis, I conceived I was fully warranted by the leading symptoms now detailed.

"*Diagnosis.*—After a few minutes' examination, I was asked by those who wished me to see the case, 'if I was able to make any thing of it?' I replied in the affirmative, and that 'I considered the lesion was chiefly confined to the left ventricle and aortic opening; that the ventricle was much hypertrophied, and that there was, at the mouth of the aorta, an obstruction to the free passage of the blood; that the auriculo-ventricular aperture was perfectly free, and the mitral valves unaffected by any material lesion.' This diagnosis, formed in so short a time, astonished a few, who were prepared to find in the case a confirmation of the correctness of the new theory; to which I had no hesitation in saying 'they would, upon a more minute examination, find the case directly opposed, as the result would testify.' A second examination, on a subsequent day, confirmed me in this belief, and strengthened my opinion, that the left ventricle was dilated as well as hypertrophied. The patient having died, rather suddenly, very soon after, I was supplied by Mr. A. Smith and my very experienced and intelligent friend, Dr. Nalty, with the following account of the post-mortem examination of the heart.

"*Autopsy.*—The heart was enormously enlarged, but the *entire* of the *right* side was in a *natural* state! the parietes of the left auricle were very slightly thickened, but the *left ventricle* was exceedingly hypertrophied and dilated. The left auriculo-ventricular orifice was *quite free*; the mitral valves presented a few opaque spots, but were fully capable of adequately discharging their office. The semilunar valves of the aorta were *very much hypertrophied*, and quite incompetent to the performance of their functions, being unable to close the aperture, and allowing water to pass freely from the aorta into the ventricle. The aorta was a good deal attenuated, and its caliber bore no natural proportion to the dilatation of the left ventricle, the former measuring but $2\frac{1}{8}$ inches, while the internal circumference of the ventricle measured eight inches! The external circumference of the broadest part of the heart measured $13\frac{3}{4}$ inches. The lungs and other viscera appeared healthy.

"*Remarks.*—In whatever rational way we view this case, the conviction inevitably forced upon our minds is, that, as far as one case can, it indisputably falsifies the new theory. In forming my diagnosis, I endeavoured to reconcile the symptoms with that theory; but soon perceived that the attempt would be a most unpardonable perversion of facts. For if we suppose the prolonged bellows-sound, which was synchronous with the impulse at the chest, to have been occasioned by the passage of the blood from the auricle into the dilated ventricle, we could *not* have the arterial pulse isochronous with it; yet all admitted their perfect synchronism. Here then is one fact that ought to be convincing against the validity of the new doctrine. Now let me suppose the soufflet to have been produced by regurgitation from the imperfectly closed aorta into the ventricle. On this supposition, and to entitle it to any value in sustaining the new views, it should necessarily have taken place *after* the arterial pulse and *second* cardiac sound; but this was by no means the case, as Dr. Nalty, Mr. Smith, and others are well aware. Again, if the soufflet originated in the descent of the blood from the auricle into the ventricle, its intensity ought to decrease in proportion as the ventricle was filled. Now, every minute observer must be aware, that this is not what happens in cases of hypertrophy of the left ventricle and obstructed aorta; for the termination of the soufflet is,

under such circumstances, generally as loud as its commencement, and this actually occurred in the case now adduced in support of the opposition I invariably felt myself authorized in giving to the new theory ever since the second or third lecture delivered on it.

"When the soufflet is occasioned by an obstruction at the aortic orifice, as in the above case, it should, according to the new theory, commence *after*, and not synchronously with, the first cardiac sound and impulse at the chest, occupy but a small, and that the latter, portion of the interval between the first and second sound, and be terminated by the first. But my diagnosis was greatly influenced by carefully observing not only a perfect calm and total absence of the soufflet between the second and first sound, but that this soufflet was substituted for the first and was continued to the second; that it occurred synchronously with the impulse and the arterial pulse. To all these points I even directed the attention of a few pupils of the hospital. If we next consider the state of the left auricle, we find in it no degree of hypertrophy to produce an impulse so extremely energetic as actually to raise, during the palpitations, the head of the auscultator, and jerk the cylinder off the chest. Besides, we know that the auricle, during its contraction, descends under the ventricle, which is then dilating, and consequently in rather a flaccid state. In which condition it would, may I not justly remark, be physiologically incapable of communicating the *rigid* impulse, of which the ear is fully sensible in violent palpitations of the heart. The ventricle's interposition, then, between the auricle and the parietes of the chest appears to me a fully adequate reason for disbelieving that the rigidity is effected by the contraction of an hypertrophied auricle. And, indeed, experience proves to us the existence of the most violent and distressing palpitations, without the slightest appearance of hypertrophy in either auricle. But to arguments, deduced from pathology, I have elsewhere* alluded, and need not now revert; but I will take leave to add, that those who heard my diagnosis in the present case, and afterwards carefully attended to the inspection of the body, were pleased to express themselves in approbation of the views and opinions I have ventured to maintain.

"There are a few other particulars, connected with the present case, not undeserving of attention, though they do not directly bear on the question under discussion. Authors are divided regarding the value of pulsation in the jugular veins, as indicating disease of the right side of the heart; Corvisart and Testa supporting the negative, while on the side of the affirmative are arranged Bertin, Lancisi, and Laennec. Its existence, if I may hazard an opinion, is, at least, deserving of attention; though when unsupported by other phenomena, physical as well as general, it can scarcely be deemed an unequivocal sign of a morbid lesion in the heart. In the case before us its absence, as well as that of the other phenomena, induced me to predict that the right side of the heart was free from disease: in the case I adduced, on a former occasion, to sustain my opinions relative to the new theory, I noted its presence, and there was disease of the right side of the heart. It is also to be remarked, that, in the case of Connell, there appears to have been a congenital contraction between the mouth of the aorta and the left subclavian artery; which fact, if Corvisart's opinion be correct, is sufficient to account for the enormous dilatation of the left ventricle in the heart of one so young. The absence of any lividity of the face appeared to me not unimportant in forming my diagnosis respecting the right side of the heart; and perhaps in the contraction of the aorta we may find sufficient cause for the paleness exhibited by the countenance, notwithstanding the great hypertrophy of the left ventricle."

The third contribution on the "His-

* Lancet, 28th May, 1831.

tory of the Chlorine Salts of Barium, by Mr Aldridge," well deserves perusal by those devoted to chemistry, but is too long for insertion in this periodical.

The fourth communication is an "Account of Gangrene after Cholera, by Mr. Davis, Surgeon, Newry."

The fifth paper is entitled "Cases of Partial Fractures of the Long Bones in Children. By Mr. Dalton, Surgeon to the Bailieborough Dispensary." It is a reiteration of Mr. Hart's description, as formerly noticed in this Journal.

The sixth article is entitled "On the Pathology of Dislocation of the Shoulder Joint. By Philip Crampton, M.D. F.R.S., Surgeon-General to the Forces in Ireland, and Surgeon in Ordinary to the King." The justly celebrated author refers to the details of the few dissections of recent dislocations; notices those of Professor Bonn, Mr. A. Thomson in the Med. Obs. and Inquiries, 1761, the two by Sir A. Cooper, and concludes with two autopsies made by himself. These he illustrates by two well-executed plates. We need not say that the practical surgeon will find much information in this valuable paper.

The seventh article is headed "Contributions to Thoracic Pathology. By William Stokes, M.D., Physician to the Meath Hospital, and County of Dublin Infirmary, &c." This able pathologist and stethoscopist undertakes to elucidate the following subjects: 1st. Notice of an hitherto undescribed termination of Pneumonic Inflammation. 2d. Researches on the Diagnosis of Empyema. 3d. Researches on the Diagnosis of Pericarditis. This important paper occupies fifteen pages, for which we have only room for a few extracts. The autopsy after pneumonia is the following.

"On dissection, we found the bronchial mucous membrane universally inflamed, and recent adhesions of the pleuræ, particularly the left. On removing the left lung, its upper lobe was found crepitating, though engorged, but the lower, when viewed externally, represented a bag of matter, the yellow colour of which was seen plainly through the pulmonary pleura. This being opened, displayed the substance of the lower lobe completely dissected from its pleura, by the suppurative inflammation of the sub-serous cellular membrane. This process also was found to have invaded extensively the inter-lobular and inter-vesicular cellular tissue, so as to cause this part of the lung to represent nearly the structure of a bunch of grapes. All these nearly isolated lobules were surrounded by puriform matter, in which they hung from their bronchial pedicles. There was no air in the cavity thus formed within the pleura, yet external to the lung, nor could I find any evidence of any bronchial communication with it.

"I have not been able to find any description of this termination of pneumonia in the late works on pathological anatomy. The case is one which may be well appealed to by those pathologists who hold that the original seat of pneumonic inflammation is in the inter-lobular and inter-vesicular cellular tissue, and that the air-cells are secondarily affected. Here we find the sub-serous and inter-vesicular tissue extensively suppurated, so as to present a beautiful dissection of the lung, while the pulmonary vesicles were comparatively intact, but remained, as represented by the bunches of granules, immersed in the surrounding puriform matter.

"Without drawing any general conclusion from the above case, it may be observed, that should future observations prove the truth of this doctrine, we shall have less difficulty in understanding how a lung, that has passed into the third stage of inflammation, should yet recover from the disease, and resume its natural functions. With respect to the difficulties of the stethoscopic diagnosis, as to the question of the existence or non-existence of a pulmonary abscess, I shall only remark, that the observation of future cases must decide how far the occurrence of puriform matter in quantity, between the bronchial tubes

and pleura, may modify the character of bronchial respiration."

The remainder of this essay we shall notice at our earliest convenience.

The eighth article is entitled "Observations on Mediate Auscultation as a Practical Guide in Difficult Labours. By William O'Brien Adam, M.D., Assistant-Physician to the Dublin Lying-in Hospital, &c." The design of the writer is to prove that the stethoscope enables the obstetrician to decide on the life or death of the fœtus in utero, and therefore he may be enabled to have recourse to instruments before the mother is injured. The double pulsations of the fœtal heart and their frequency, compared with the pulsations of the mother, mark the diagnosis. He does not mean to assert, that in all cases, when the fœtal heart cannot be felt, death has taken place. In twenty-three craniotomy cases, the fœtal pulsations were found to have ceased in nineteen. In three of the four remaining, the head was opened during life, but, in our opinion, from the loose way in which the cases are described, unwarrantably; as the long forceps, vectis, or hand, ought to have been employed in the first case (the head being impacted at the brim, the exact position not stated), before recourse was had to craniotomy. In the second case, there were no dangerous symptoms, but the pulse failed, labour ceased, and rupture of the uterus was suspected. It is impossible to offer a comment on this case, as the only tangible facts stated are, that the woman, aged 30, was in labour of her second child for thirty-six hours; the pains feeble, "yet the head of the child made considerable progress;" but its relative position to the pelvis is not described. The patient died on the fifth day, and a rupture was detected at the junction of the uterus and vagina. We are finally informed, that the antero-posterior diameter was scarcely three inches and a half. This explains the necessity of craniotomy, and should have been stated in the history of the case. We cannot follow the writer, but observe an inclination on his part to prefer the perforator to the forceps, and to question the efficacy of the ergot of rye. We believe the profession in every other section of this empire, on the continents of Europe and America, hold the opposite opinions; and we deeply regret that such prejudices should be still entertained in the Dublin Hospital. We should wish to see those who advocate them reply to the paper of the late Dr. Beatty "On the Use of the Forceps;" and to refute the received opinion, that delivery should be effected by this instrument, or the vectis, whenever practicable, and that cephalotomy should be the last resource. As to the antiquated notion, that the ergot of rye causes the death of the infant, it is decidedly erroneous. Every day's experience convinces us of the fact. If the remedy be used genuine, and judiciously, it is as safe and efficacious as any in the materia medica. Our author's cautions on the use of auscultation in obstetric cases are worthy of citation; and he assures us that the value of this diagnostic is proved daily in the Dublin Hospital, by Dr. Collins and himself.

"We would wish to caution the young practitioner against some mistakes into which he might by possibility fall; namely, the confounding the pulsations of the abdominal aorta of the mother with the fœtal heart; and also, that in some cases he will find the sound of the mother's heart transmitted along the abdominal parietes, so as to be audible by the stethoscope in the epigastrium, and the lateral parts of the abdomen and loins; but a comparison of the sounds of the fœtal heart, as heard through the cylinder, with the mother's pulse at the wrist, showing a vast difference in frequency between them, renders the mistaking the one for the other, in ordinary cases, quite impossible; the fœtal heart, which, in natural presentations, is generally to be heard in the right iliac or inguinal regions, perhaps a little towards the hypogastric, but in some cases in the op-

posite side of the abdomen, beats from 120 to 160 in a minute; however, in the course of a difficult labour, the mother's pulse may rise to this, or nearly to this standard, therefore it requires the frequent use of the stethoscope, and some discernment, to distinguish between them, when the pulse at the wrist corresponds in frequency with what we suspect to be the sounds of the fœtal heart; the young practitioner, by frequent examination, should well accustom his ear to the peculiar double beat of the fœtal heart, to enable him to pronounce with certainty in such difficult cases."

The last article is on the "Contagion of Cholera. By Wm. Harty, M. D. Physician to the Prisons of Dublin, &c." The author of this paper is well-known to the profession by his works on dysentery, typhus, and various contributions to periodical literature, while his experience is most extensive, as he has generally 1000 patients in the different prisons under his care. He clearly proves that cholera occurred in the Richmond Bridewell while the disease was no nearer Dublin than Belfast, and was purely endemic. He is a non-contagionist, and lashes the Dublin Cholera Board with well merited severity.

CONVERSAZIONI.

CONVERSAZIONI are all the order of the day amongst our medical friends. The president of the Medical and Chirurgical Society has issued cards for three—Mr. Pettigrew for a series—Mr. Delafons has followed their example; Mr. Harrison Curtis has held one, and is, we understand, about to have another; some of these will be doubtless good, others bad, and some others we have every reason to believe indifferent. We must here offer our highest tribute of respect to his Royal Highness the Duke of Sussex, for the very just and honorable feeling he has displayed towards the profession, by extending to so many of its distinguished members his invitation to meet the Fellows of the Royal Society at Kensington Palace on the Saturday evenings.

REPORTS OF SOCIETIES.

This week being devoted to serious reflections on the improvement of the soul, our learned societies do not assemble to discuss any matter connected with the care of the body.

THE ANATOMY BILL.

The anatomical teachers have been again summoned to the Secretary of State's Office for the Home Department, on the subjects that have so lately occupied our attention.

PRIZES OF THE MEDICAL SOCIETY.

The Medical Society of London has fixed upon the following subjects for the prize essays to be delivered in before the first of December, in each year. For 1834, Diseases of the Urethra; for 1835, the Pathology and Treatment of Puerperal Fever. We think the points selected are of the deepest importance, and we have little doubt will excite that emulation which a reward from so distinguished a body would very naturally call for.

DRS. GRANVILLE AND LEE.

We have studiously avoided entering upon the controversy between Dr. Granville and Dr. Robert Lee; we have given the result of the discussions at the Westminster Medical Society, and have made the profession acquainted with all those points which were of interest; with this we must rest contented. We feel, however, very deeply the obligations we owe to those gentlemen who have made communications to us on the subject, but we cannot suffer our pages to become the vehicle of party feeling. Were we to insert some of the articles which have been forwarded to us, we should be considered as partizans: we have always made it a rule to avoid keeping up any unpleasant feelings that may have been excited amongst those who should be friends.

OBITUARY.—THE GAZETTE OF HEALTH.

It is curious for the reflecting person, as he journeys through this "vale of tears," to watch the rise, the progress, and the termination of the career of our cotemporaries, to observe "the chances and changes of this mortal life," and sometimes to perform the melancholy duty of pronouncing a funeral oration over the departed. We have this month to announce the decease of a journal, which had, in its early career, much vigor, manly strength, and bold bearing, but which has gradually sunk into the decrepitude of old age, and has at last bade the world a long sad farewell. The Gazette of Health was originally established by the late Dr. Richard Reece; and at a time when to attack any existing institution was a perilous undertaking, he most unmercifully castigated the Royal College of Physicians. He spared neither friend nor foe; and was one of the daring spirits of the age, who "regardless of the love of the few seeks the admiration of the many." He lashed, however, without much discrimination; and sometimes a good and an excellent man was victimized with the same rod as the stupid and the bad. We will say nothing, however, of its demerits; we are strict observers of the wholesome tenet, "De mortuis nil nisi bonum." For some years, the monthly periodicals have been falling prostrate before their more active and useful brethren, the weeklies; a blow, too, of rather a severe nature, was given to our departed acquaintance, by the establishment of a weekly work, which bore nearly the same title; and we know, he who filches from us our good name makes us poor indeed. For a great length of time the journal appeared tottering; during the long illness of its warm-hearted, though somewhat singular editor, Dr. Reece. After his decease, it exhibited for a short time symptoms of unusual animation; and great expectations were excited, from a report that able Physicians were called in to give additional stimulus, and fresh life to the frame; but suddenly all has ceased, and we have thus to announce the termination of the career of the Gazette of Health. We learn that some misunderstanding as to the copyright has been the cause of this somewhat unexpected termination.

BOOKS.

A Plain Account of Vaccination, designed for the Heads of Families. By A.B.C. London: 1833. Renshaw and Rush.

A Practical Appeal to the Public, in defence of the New System of Physic by the illustrious Hahnemann, &c. &c. &c. Letter the First. By John Borthwick Gilchrist, LL.D., &c. London: 1833. Parbury, Allen, and Co.

We have abridged the title of this work, as the original would fill one of our columns. We are satisfied that the author's intention is good, but he makes out no case at all for the homœopathic system of physic. Were we disposed to criticise, we should have an ample field. It is very natural on the part of Dr. Gilchrist, for whom we entertain much respect, to laud any system of physic which freed him from the indescribable horrors of ten thousand blue devils; but we think his travels on the Continent had much more to do in the cure than the reveries of the octogenarian whom he nearly adores.

NOTICES TO CORRESPONDENTS.

Aliquis in our next.

A London Hospital Student is too laudatory of his teachers, and we fully agree with him as to the excellence of that school to which he belongs, but we must decline his letter.

Justus comes too late for this number, as also the Petition of M. Chervin to the Chamber of Deputies. What a dressing for the contagionists and their mendacious correspondent, M. Moreau de Jonnès! Even Sir William Pym, our Superintendent-general of Quarantine during the cholera, and at Gibraltar in 1821, is sadly flagellated by his Gallic brother commissioner.

"The evil that men do lives after them;
The good is oft interred with their bones."

Erratum in Professor Graves's 12th Lecture. In the formula for a gargle, Sulph. alum. ℥j. *should be* ℥j.

Amount of Subscriptions already received in aid of Dr. Ryan . . £223 18 0

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 63. SATURDAY, APRIL 13, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXXI., DELIVERED DEC. 13, 1832.

Gentlemen,—I informed you in the last lecture, that, when a ball passes with great velocity through the textures of the body, it produces so much injury, that the parts surrounding its track commonly slough. Now, it is in consequence of this circumstance that the period of the greatest danger is from the sixth to the tenth day after the receipt of the injury; for then the sloughs begin to loosen, and, if the ball has touched an artery or one of the bowels, there will be, about the time specified, either a dangerous effusion of blood, or an extravasation of the contents of the injured viscera. When you are first called to a gun-shot wound, you cannot know what may be the extent of the mischief that has been done; and it is only when the sloughs loosen that you are able to learn, from the circumstances which then present themselves, namely, from the hæmorrhage, or from extravasation of the contents of particular viscera, what is the real state of the case. Now, the amount of hæmorrhage may destroy the patient, or the blood may be effused into the cavity of the chest or abdomen, and produce there inflammation, or other effects, which may prove fatal. When the wound is in the abdomen, and the sloughs loosen, not only may some large artery be opened, but also the intestines may be involved in the mischief, and the patient be lost, either from the consequences of the hæmorrhage, or from those of the injury of a part of the intestinal canal.

In the case of the soldier of the 44th regiment, mentioned in a former lecture, who had been shot in the ham: he went on very well till the eighth day, when, on the loosening of the sloughs, the popliteal artery gave way. No doubt, one side of it had been touched by the ball, but this was of course not known until the sloughs began to loosen, when the sudden and profuse bleeding threw important light on the nature of the case. On that occasion, I tied the femoral artery, which practice was contrary to the generally approved and excellent principle, which prescribes, that we should tie a wounded artery immediately above and below the opening in it; but I had strong reasons for deviating from this rule; for, in the first place, the operation of exposing the part of the artery which had given way would have been a most severe one, and possibly fatal in its consequences; for the parts in the ham were enormously swollen, and all highly inflamed; secondly, I calculated, that there was a chance of the return of hæmorrhage not taking place, after the ligature of the femoral artery, because, it is well known, that when an artery gives way from sloughing after the passage of a ball near it, there is always some effusion of coagulating lymph in the vessel, whereby its canal may be more or less obtructed. In all probability, this was what had happened in the case under consideration; for there was no return of hæmorrhage after the femoral artery had been tied.

This case is instructive, also, on another account, for it teaches us why, in gun-shot wounds, the separation of sloughs frequently gives rise to copious and even fatal hæmorrhage, which is entirely a different course of things from what is seen in common examples of mortification, where, the arteries being plugged up with a coagulum, bleeding rarely follows the loosening of the dead parts. But, in gun-shot wounds, where only one side of the artery has been touched by the ball, the inflammation excited within the vessel is not sufficient to obliterate its canal entirely, and when the slough separates, hæmorrhage takes place

Now, gentlemen, the foregoing remarks chiefly relate to bleedings from such gun-shot wounds as penetrate deeply, and are produced by musket-balls, bullets, or grape-shot; for

cannon-balls produce contusion and laceration in so aggravated a degree, that there is seldom much bleeding. Here the same circumstances are observed, as take place when limbs are completely torn off by machinery. A limb may be carried away at the shoulder by a cannon-ball, and yet no bleeding of importance may ensue: there may be no necessity for ligatures either directly after the receipt of the injury, or at any later period. Numerous proofs of this fact were observed after the battle of Waterloo: a soldier of the rifle-brigade was brought to the hospital in which I was doing duty, with his arm torn off at the shoulder, yet there was no bleeding from the wound. A Dutch soldier was brought into the same hospital with his leg shot off below the knee, and in his case also there was no hæmorrhage. One of the most remarkable instances of this kind that, I think, was ever seen, presented itself to my notice in the year 1814, at the field hospital, in the village of Merxem, near Antwerp. The wounded man was, I think, one of the guards; the whole of the cushion of the shoulder was torn away by a cannon-ball: the head of the humerus, a portion of the first rib, and the greater part of the clavicle and scapula were shot away, yet there was no bleeding of any consequence. It is true, that the axillary artery escaped being injured, yet many important vessels must have been wounded. This case was published by Sir Andrew Halliday, who was also a witness of it, in the eleventh volume of the Edinburgh Medical and Surgical Journal; the man got well, which was a curious circumstance, for the laceration and removal of parts were so extensive, that the beatings of the heart, in the pericardium, were plainly exposed.

The peculiarities of gun-shot wounds are numerous: one, sometimes noticed, is the gradual loss of the pulse in the injured limb a few days after the receipt of the wound, and arising from the ball having passed near the main artery, which is hurt but not sufficiently to slough, and, instead of sloughing, it inflames, and is rendered impervious with coagulating lymph. Gun-shot wounds may have either one or two openings, according as the ball has lodged in the part or has passed quite through it. When a musket-ball, or pistol bullet, has entered a fleshy part, you will see an aperture rather less than the ball, and the circumference of which is surrounded by more or less ecchymosis, and the edges forced somewhat inwards. If the ball has passed quite through the part, you will notice a larger orifice at the point of its exit, with a prominent and irregular margin.

One of these drawings, which are upon a large scale, will give you a good idea of the appearance of an aperture formed by the entrance of a ball a few days after the receipt of the wound, at the period when the slough has been formed; you see considerable redness and discolouration round the opening, with a black substance in the centre, consisting of the slough. The drawing, which I next show you, represents the horribly lacerated and mangled surface of a wound, produced by a cannon-ball, or shell, that has torn off the upper extremity at the shoulder. Here is the representation of another case, in which there seems to have been a ligature applied to the axillary artery, and a vast mass of fungus covers the surface of the wound. The drawing was made, I believe, by Sir Charles Bell, in Belgium; but the particulars of the patient I am not acquainted with. Previously to the formation of the slough, or, I should rather say, before inflammation has had time to come on, there is not so much redness round the orifices, nor so much swelling and œdema of the parts, as you see depicted in one or two of these drawings.

The seemingly extraordinary course, which balls sometimes take, is explicable by the laws of projectiles, and whatever difficulty may occur in making any calculation of what determined the particular track of the ball, proceeds from the want of data, on which such calculation is to be founded; for we cannot know precisely the degree of resistance which the ball may have met with in its passage through different textures, and from various surfaces which it has touched. In some cases, the points of its entrance and exit are exactly opposite one another; but, in other examples, their relative positions are very different. Dr. Hennen mentions a case, in which a musket-ball entered in front of the larynx, and passed all round the neck, nearly to the place where it first pierced the skin. When balls strike the ribs obliquely, the course will often be so changed, that they will run round the body, and come out at the opposite side, so that you would at first imagine that the patient had been shot through the chest; but circumstances afterwards lead you to take a more correct view of the nature of the injury. Similar events sometimes occur in wounds of the head: a ball, after having pierced the temple, may be so turned as to pass round the cranium to the opposite side of the head. Nay, it may describe almost a complete circle, and lodge or come out nearly at the point where it first entered.

As a soldier was climbing up a scaling ladder, with his arm extended upwards, he received a musket-ball in the centre of the upper arm, thence it descended over the shoulder to the back of the chest, from which situation it next proceeded amongst the abdominal muscles, and having passed through the glutæi muscles, stopped about half way down the opposite thigh. I mention this case on the authority of the late Dr. Hennen, whose treatise on military surgery is highly valuable.

Another fact, gentlemen, meriting your attention, in relation to gun-shot wounds, is, that they are more subject to be complicated with the lodgment of foreign bodies, than any other common description of wounds. Such foreign bodies may be, either the ball itself, or portions of it, fragments of bone, parts of

the clothes, pieces of bombs, or splinters of wood; for I should mention, that wounds, resulting from the explosion of bombs, and from splinters of wood being driven into the flesh, by which most severe injuries are often occasioned in naval engagements, are usually classed with gun-shot wounds. Hence, even when the ball has passed out, you cannot be sure that no foreign bodies are lodged in the wound; for there may be pieces of the soldier's or sailor's dress driven into it, or a button, or a piece of money, or other articles accidentally in his pockets at the moment of the injury. When there is only one opening, you may conclude, that the wound contains a foreign body, namely, the ball itself; though, even in this case, it is possible that the wound may not be thus complicated; for when a ball is nearly spent, and only enters a little way, it may convey into the wound a portion of the waistcoat, or shirt, in the form of a small pouch, and be drawn out again almost immediately afterwards along with such part of the dress. Sometimes a ball will just pierce the skin, and then lodge over the cartilages of the ribs, from which situation it may drop out again in consequence of the mere motions of respiration. When there are two apertures, the whole of the ball cannot be lodged in the wound; but other substances may yet be in the part, such as portions of the clothes, splinters of bone, &c. You will read many interesting cases in Dr. Hennen's work, in which balls, fired among close columns of men, actually forced portions of bone out of the body of one man into that of another. Sometimes, notwithstanding there are two openings, a part of the ball may remain behind, having been broken in its passage; thus a ball may strike the skull, and at the same time that it breaks the bone, it may be split, and one half of it pass out through the scalp, and the other go into the skull, and lodge either in the brain, or between the dura mater and the internal table.

It has been a subject of dispute in surgery, whether longitudinal fractures of the long cylindrical bones ever take place; but this question is now completely settled. Cases, proving the possibility of such fractures, have fallen under my own notice: several soldiers were brought into the military hospital at Oudenbosch, in Holland, where I was on duty, whose cylindrical bones had been fractured longitudinally by grape-shot, throughout two-thirds of their extent, and more or less parallel to the axis of the bones. In the thigh-bone, they often extended perpendicularly into the knee-joint. No specimens of such injuries are contained in the museum of this University, but they are not very uncommon. At Bergen op Zoom, many British soldiers, in attempting to escape from the French, were wounded with grape-shot from the batteries, as soon as they got upon the glacis, and received dreadful compound fractures, some of which were strictly longitudinal fissures of the thigh-bone, or tibia. You will find, in Cloquet's Pathologie Chirurgicale, other examples of longitudinal fractures of the cylindrical bones, produced by the fall of a building, or heavy bodies on the limbs.

Some of the worst compound fractures are produced by gun-shot; for, frequently, there is not only extensive laceration and contusion of the soft parts, but the bones are comminuted and splintered in a degree exemplified in other instances of these accidents. The preparation, which I now show you, is a comminuted fracture from gun-shot, taken from an officer, who was wounded at the battle of Ostrolenka, in Poland, and died of its consequences. In this case, perhaps, amputation should have been performed at an early period, though it is presumptuous to give a positive opinion on this point, without a better knowledge of the particulars of the case. The next specimen before us is also illustrative of the comminuted fractures, which may be produced by gun-shot wounds, and was taken from an officer, wounded in the late campaign in Poland, on whom amputation was performed, no doubt, in consequence of the urgency of the hectic symptoms. You may observe, that, in this case, some fragments of bone, which had been entirely separated, are united again: I call your attention to this circumstance, because it has been said, that bones will not unite while profuse suppuration is going on. From the appearances displayed in this preparation, there cannot be a doubt, that, at the period of amputation, there must have been extensive abscesses; yet we see that even fragments, which appear not only to have been detached but much displaced, are united again. What has occurred in the radius makes this fact very evident.

One peculiarity of gun-shot wounds is, that they sometimes produce comminuted and complicated fractures of the hip and shoulder-joints, such mischief as scarcely ever occurs in any other fracture of these parts, produced by other causes.

Gentlemen, from the observations, already delivered on the subject of gun-shot wounds, you will readily conceive, that the prognosis will depend very materially on the extent and depth of the wound, and on the nature of the textures or organs injured. Gun-shot wounds of the head, lungs, bowels, and large joints, such as the knee, hip, and ankle, attended with extensive contusion and laceration of the soft parts; others combined with the excessive mischief arising from what are erroneously called *wind contusions*, and all bad compound and comminuted fractures, are necessarily productive of serious and pressing danger. In the last lecture I explained the true way in which these wind contusions occur, namely, by a cannon-ball, that is nearly spent, striking the surface of the body or limb obliquely, and rolling over the integuments without breaking them, but crushing and destroying all parts and textures under them, whether muscles, bones, or visceral organs. Soldiers may in this way

be killed without any apparent injury, and hence they were formerly ascribed to the effects of the wind of the ball; but, gentlemen, the error of this notion hardly requires any comment at the present day: portions of the dress of soldiers and seamen are carried away by balls in every great action, yet very often without the slighest injury of any part of the body. When I was with the army in Holland, I remember being in the village of Merxem, near Antwerp, across which a few random balls from the French batteries, every now and then passed. A surgeon, a friend of mine, was walking for recreation in the main street (though perhaps it was not a very pleasant place to walk in at that time) with two officers of his regiment. He was in the middle, taking hold of their arms, when a cannon-ball passed amongst the legs of all three, shattering a leg of each of the two outermost of these officers so badly, that amputation was performed without delay; but the surgeon, who was in the centre, escaped without any injury. We must, therefore, see how harmless a cannon-shot must be, unless it actually strike or touch the parts. In a wind contusion, it is the elasticity of the skin that prevents it from being injured; the ball is reflected from it, but the subjacent parts, which offer more resistance, are crushed and destroyed. These wind contusions are among the most dangerous effects of gun-shot wounds; sometimes the person is killed immediately by the total destruction and crushed state of the liver, spleen, or other important viscera; and, on other occasions, the limbs are so injured, notwithstanding the unbroken state of the skin, that the muscles are reduced to atoms, the arteries lacerated, and the bones compressed to numberless fragments, and amputation without delay urgently required, as the only chance of preserving life.

The violent contusion and laceration, the severe compound fractures, the presence of foreign bodies, the wounds of nerves and arteries of great consequence, with which gun-shot wounds may be complicated, fully account for their severe and fatal effects, for the violent inflammation and fever which follow them, and for the enormous abscesses and frequent loss of limbs and life which they produce. The immediate effects of gun-shot wounds differ in different individuals; of course, the results of profuse hæmorrhage will be almost exactly the same in all; but some persons will be affected with faintness and mental and bodily depression from slight gun-shot injuries, while others will bear to have their limbs carried away, and evince little agitation, mental or corporeal. Some will faint on the receipt of a trifling wound; in their countenances will be seen a cadaverous paleness; and such a state of syncope will come on, as would make you suppose them to be dying. Under these circumstances, you may frequently rally the patients by the assurance, that the injury is less serious than they suppose, and by giving them a cordial or a little laudanum. However, if you find this derangement of the system continue any considerable time, you will have grounds for supposing, that there is either internal hæmorrhage, or a wound of some important internal organ. I remember a sailor, who was brought to St. Bartholomew's Hospital when I was a pupil there, who had had his arm carried away by a cannon-ball from a battery in the West Indies; he experienced no alarming, mental, or corporeal disturbance directly after the receipt of the wound, and, as the certificate of the surgeon, who attended him at the time assured us, he did not even faint. You are not, therefore, to fancy, that bad gun-shot wounds invariably cause violent disorder of the system, directly after their occurrence; much depends on the individual: after the subsidence of the first alarm and depression of the constitution, a re-action in the system ensues, and inflammatory fever comes on. The latter will gradually abate as the inflammation in the part subsides, or if this should increase in extent and violence, so as to cause profuse abscesses, attended with excessive discharge of pus, the febrile symptoms will soon put on the hectic type, and so weaken the patient, that it may be necessary to amputate the limb to save his life. Sometimes, indeed, the powers of the constitution are so reduced by the effects of the local mischief on it, that the patient is not in a condition to support the operation, and then all you can do is to endeavour to palliate the various symptoms, and seize the first opportunity, which may present itself, for doing the operation with a more rational prospect of success.

Gentlemen, with respect to the *treatment of gun-shot wounds*, when you are first called in, you will frequently be required to come at once to a decision on the important question, whether the case is one demanding immediate amputation, or whether you should attempt to save the limb. Now, it is a matter of the first-rate consequence to the patient, that you should, at this period, act with firmness and judgment; for, if you do not, he may lose his life by your conduct; or, if you want discrimination, he may be mutilated unnecessarily. If the case truly require amputation, the operation should always be performed without delay, or without any further loss of time than what may be necessary to let the patient rally from any temporary depression produced by his accident. If you do not avail yourself of this opportunity, inflammation will soon come on, and you will have to amputate under considerable disadvantages. Well, then, if amputation be neglected, violent inflammation and profuse abscesses in the limb may follow, and frequently phlegmonous erysipelas and mortification, attended with such derangement of the whole constitution, as renders amputation a measure scarcely feasible. I will now, gentlemen, describe some of the principal kinds of gun-shot wounds, which call for immediate amputation.

1. When a considerable portion of a limb

has been carried away by a cannon-ball, or the explosion of a bomb, it is universally agreed, that amputation should be performed without delay.

2. A second case is that, in which the bones are much shattered, and the soft parts severely lacerated, contused, or torn away.

3. A third case for immediate amputation is where a cannon-ball has carried away a great mass of the soft parts, leaving the rest badly torn and contused, and where the principal artery, or arteries, of the limb are injured: here, amputation should be performed, whether there be fracture of the bones or not.

4. A fourth kind of gun-shot injury requiring immediate amputation is, where a wound of the femoral artery is attended with a fracture of the thigh-bone: in such a case, every military surgeon concurs in recommending prompt amputation.

5. Another case for the operation is, where a fracture of the bones of a limb, great laceration of the soft parts, and injury of one of the principal nerves, have been occasioned by grape-shot, without the principal blood-vessels however being wounded. This kind of injury is frequently seen in campaigns, and is exemplified on the posterior part of the thigh, where the sciatic nerve is torn away, and the muscles extensively torn and severely contused.

6. That kind of injury, which has been vulgarly denominated a *wind-contusion*, often calls for immediate amputation; for the bones, muscles, vessels, and other textures, may be crushed to atoms, though the nature of the injury is concealed by the integuments, which continue entire. Here, however, before you amputate, you should ascertain, that you have not mistaken a mere effusion of blood for the kind of mischief to which I allude: you should, therefore, first make an incision in the part, and if you find the muscles converted into a softish pulp, and the bone shattered, you cannot amputate too soon. But when the vessels and bones have escaped injury, there is a possibility of the limb being saved; and, in such a case, you may wait a short time, in order to give the patient a chance of preserving his limb.

7. Another description of gun-shot wounds demanding immediate amputation is, where they involve large joints, like the knee, ankle, and elbow. Wounds of the shoulder-joint, however, may often be cured without amputation, by making an incision, and removing the comminuted head of the bone. You will find in Baron Larrey's *Mémoires de Chirurgie Militaire* many examples, in which the limb was saved by this mode of proceeding.

8. An eighth description of cases, generally requiring immediate amputation, comprises gun-shot fractures of the two upper thirds of the thigh, or of its head and neck: it is found that, in such cases, you can hardly ever save the patient's life except by amputation. I had ten cases of this kind under my care, brought from the attack on Bergen op Zoom: they were all admitted into the hospital at Oudenbosch in the stage of violent inflammation, or that of most profuse suppuration. Amputation should have been performed, I think, at the very first; and certainly before they were removed: only one of these poor fellows lived, and his case was a fracture below the point I have mentioned; for it was in the lower third of the thigh. When the fracture is in the upper two-thirds, and accompanied by the injury of the soft parts, necessarily attending grape-shot violence, the patient's only chance will depend upon the early performance of amputation.

Here, gentlemen, is a specimen of a ball, lodged in the cancellous structure of the head of the humerus: in such a case, amputation of the head of the bone might be necessary if the ball could not be safely dislodged by other means; or if dangerous symptoms were to be unequivocably brought on by its lodgment; for a ball might be in that situation, without creating very urgent disturbance. However, many surgeons deem such a case to be one requiring amputation: at all events, in the shoulder, I see no necessity for removing the whole limb.

In fractures of the patella, if the bone be not severely comminuted, and the synovial membrane not extensively lacerated, you may defer amputation, and watch the course of things.

Another case, requiring prompt amputation, is where extensive denudation and a violent concussion of a bone have happened, from the passage of a ball along its surface: here the medullary texture is injured, and the muscles must inevitably be dreadfully contused and lacerated. The foot turns cold, and, unless amputation be done quickly, mortification will ensue. However, you should examine the parts carefully, lest you should mistake the nature of the case; and if you see any disposition to mortification, you should amputate without delay.

When two limbs are hurt in so serious a degree, as to preclude all chance of their being saved, you need not be afraid of amputating both of them; for the generality of patients will bear the double operation very well. In the French army, double amputation was frequently performed; and, when I was at Paris, there was a soldier in the Hôpital des Invalids, who had lost all his legs and arms. Such cases are adverted to by Baron Larrey. The hour having expired, I will now, gentlemen, begin examinations.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832-33.

LECTURE XVII.

Functions of the Nervous System—Periostitis—Syphilis.

GENTLEMEN,—I proceed, according to the plan I have laid down, to make some detached

observations with reference to cases of interest at present in our hospital wards. It is my intention, also, during my course of clinical instruction, to direct your notice to any thing of practical importance whenever I chance to meet it; and I will, on the present occasion, occupy your attention for a few moments with some remarks on a paper which appeared in the Lancet of the 12th of January last, containing Observations on a Wound of the Ulnar Nerve, by Mr. Calder. Several inferences have been drawn by Mr. Calder from the symptoms which attended the accident, one of which is, that when a nerve has been divided, the nervous influence may be reproduced independent of the nerve itself; or, in other words, that if the branch of nerve which supplies, suppose one of the fingers, be cut, that finger, in process of time, may regain sensation and motion, though the nerve so divided be not regenerated. He thinks that he has proved this by the fact of a return of motion and sensation after the complete division of the ulnar nerve. I feel quite certain that the fact, mentioned by Mr. Calder, has been accurately reported, but I do not think that he has been successful in his mode of explaining it, and consequently the following observations on this interesting subject appear the more necessary.

You recollect, that on a former occasion, when treating of the phenomena of nervous irritation and sympathy, I said that I believed there was a provision in nature for accomplishing a nervous supply in parts where the supplying nerve has been divided; for we are all aware of the fact, that parts so circumstanced have their functions restored, in process of time, either partially or completely. It is the same way with respect to arteries; if an arterial branch be cut or tied, new vessels become developed in the part for which the divided vessel was destined, in order to supply its place; and so it is with nerves, too. The loss is repaired, not by the deposition of the subtile nervous influence of Hunter (by the by, Mr. Calder calls it subtle; this is ridiculous, and so is Hunter's expression, too), but by an actual nervous anastomosis; for nerves are capable of growing and increasing in size as well as other tissues. We can trace, with great difficulty, the nervous filaments in an unimpregnated uterus, in consequence of their very minute size; but towards the termination of pregnancy they have attained such dimensions as give ample proof of their growth. Several facts in physiology tend to establish the position, that the nervous influence in parts that grow is supported by an increased development of nervous matter; and it is natural to conclude, that when the nervous power of a part is augmented, the nerve is also increased in size. In order, then, to explain facts similar to those related by Mr. Calder, we must recollect that no part or organ of the body is supplied with nerves from one source alone; in all, at least, two nerves send branches to the part, of which those derived from its proper nerve are by far the most numerous and important. These branches, however, form numerous junctions, or, if we may use the term, anatomoses, with the branches derived from other sources. While the proper nervous trunk of the part remains uninjured, the nervous influence derived from the nervous communications is subordinate, and comparatively unimportant; but when the proper nervous trunk is destroyed by injury or disease, then the subordinate nervous influence derived from the communicating branches is gradually increased by means of the growth of these branches and the nervous trunks from which they are derived, until at last the nervous functions of the part are completely restored.

The opinion which has been long entertained, that the separate parts of the nervous system may grow independent of the brain or spinal marrow, and, in the fœtus, always precede the latter, would induce us to think that nerves, like other parts, may grow, and, under certain circumstances, increase in size.

It has been observed, in cases of tic douloureux, that the symptoms disappear after the division of the affected nerve, and, in the course of time, return again, when the growth and anastomosis of the divided nerve has restored its influence. The opinion which I am at present advancing is, of course, only hypothetical, but I think it one which is borne out by facts.

The remarkable Treatise of Leo-Wolf, of which I have given a full account in the number of the Dublin Medical Journal, which will be published next May, has proved that, under certain circumstances of disease, new and powerful muscles are produced in the human body, capable of acting with great energy, and which, consequently, must be supplied with nerves entirely new; or, to express it more clearly, with nerves superadded to the nerves existing in the healthy state of the body. This fact alone speaks volumes in favour of my hypothesis. Again; Larrey* has shown that in the stumps of amputated limbs, a junction is often observable between the extremities of the divided nerves of the stump; and when a section is made of this junction, the substance by which it is effected appears quite continuous with and similar to that of the nerves themselves. Again; Rudolphi† expresses the opinion, that the nervous substance may be reproduced when destroyed; and refers to his own experiments on large water salamanders, in which new limbs had grown to supply the place of the old ones he had cut off. In these animals, in a year and a half,

* Larrey, Notice sur quelques Phénomènes pathologiques observés dans la lesion des nerfs et dans leur cicatrisation.—*Révue Medicale*, 1824.

† Grundriss der Physiologie, Band. i. p. 96.

or two years, after the amputation, the nerves in the newly-created limb were perfectly continuous with those of the rest of the body; and Rudolphi says, that even with a microscope, he could not detect any point of junction between the old and the new nerves, so complete was the production of new nervous matter, and so perfectly organized was the cicatrization or junction of the new nervous matter with the old.

The celebrated octogenarian philosopher, Prevost, who has lately published so interesting a paper on Double Vision with a single Eye, published in favour of the regeneration of nerves, in 1826*; and this opinion was supported also by the experiments of Haighton, published so long ago as 1795, in the Philosophical Transactions. On the whole, then, notwithstanding the arguments of Breschet†, the reproduction and production of nervous matter seems by no means an unusual occurrence.

Mr. Calder also states, that sensation appeared in the parts which had been deprived of nervous influence by the division of the ulnar nerve, and that this was succeeded by a restoration of the power of motion, and he brings forward these facts as being confirmatory of Sir C. Bell's theory of the existence of separate nerves for sensation and motion. With respect to this I may observe, that it is a general law in such cases; and in all circumstances where sensation and motion are simultaneously impaired, you will find that sensation returns first and motion afterwards. If your hands happen to get benumbed from exposure to severe cold, you will observe that the restoration of sensation always precedes that of motion; sensation seems to require less nervous energy than the motive faculty, and as a function of a lower kind is more readily renewed or repaired than one of a higher and more complex nature; the power of sensation is foremost in the process of functional resuscitation.

Having made these observations, I now pass to the consideration of a case of cranial periostitis which we had in hospital last week. A man in the prime of life, of a strong habit of body, came into hospital about two or three months ago, complaining of a pain in his head, so severe and constant, that he was kept awake by it night after night without enjoying an hour's tranquil sleep. His suffering from this cause was very great, but he appeared to have no other symptom of disease. The pain was principally confined to a certain portion of the frontal bone, and in this situation there was an obscure and undefinable feeling of tenderness. On inquiring into the history of the case, we found that he had syphilis, and used mercury some time before the occurrence of the cranial affection. We were, therefore, of opinion, that his disease was cranial or internal periostitis, affecting the frontal bone, and decided on treating it with mercury. As soon as his mouth became sore, the pain abated: we then left off the mercury; but two or three days after, he had a return of pain, and we blistered the part and had it dressed with mercurial ointment, which succeeded in giving him complete relief. He left hospital sooner than I wished, being discharged at his own request, with a caution to be careful of himself and avoid exposure to cold. After remaining out for a fortnight or three weeks, he came back again, having caught cold during his absence from hospital, and complained of a painful affection of the cervical vertebræ, which we looked on as periostitis arising from cold, while his system was still under the influence of mercury. I ordered a blister, which gave immediate but imperfect relief, and, in the course of a few days, the original pain in the head returned with more violence than ever. The poor fellow spent his night in the greatest agony, moaning piteously and completely restless. The appropriate remedies were employed, and among others he had a blister to the forehead. I was of opinion, that this was a relapse of the original malady; but on its second appearance, we remarked, that the pain was not confined to a certain spot, or did not radiate from one particular centre, but was indistinct and general. On a sudden, the man had an attack of greater pain than ever in the head, forcing him to roll himself in his bed, and causing him to cry out loudly. He appeared somewhat beside himself, and continued to groan and toss himself about until his death; he was not at any period comatose, and constantly pointed to the head as the source of his sufferings. The symptoms commenced in the morning, about eight o'clock, while we were passing through the ward: he was convinced at that time he was very ill, and died the same evening. He was examined on the next day, and the following is the account given by Mr. Campbell of the necroscopic appearances: the brain and membranes were much congested, but in all other respects natural. The inner surface of the cranium, corresponding to the anterior and middle lobes of the cerebrum, presented a remarkably irregular appearance, which, on examination, was found to depend upon the presence of a vast number of bony spiculæ, which projected from the vitreous table. Some of these spiculæ projected upwards of four lines from the surface, and were quite sharp at the edge. The dura mater adhered intimately to these spiculæ, and appeared perfectly healthy. The cranium was what might be called a thin one, but healthy. No spiculæ or preternatural appearance could be detected in the parietes of the spinal canal.

To what cause are we to attribute his death? He had violent and continued pain; we know that in many instances the powers of the body are worn out by long-continued suffering, but

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* Mémoires de la Soc. de Phys. et Chem. tom. iii. p. 61.

† Article *Cicatrice*, Dictionnaire de Medecine.

here this cause cannot be taken into consideration; the duration of the disease was brief, and the man's bodily powers were but little impaired. I will not make any further observation on this perplexing subject, but will proceed to make remarks on what has been observed on dissection. The dura mater is found to be perfectly healthy, its colour is transparent and natural, there is no appearance of thickening, or any of the other effects of inflammation. In the next place, the internal surfaces of the frontal and sphenoid bones are studded all over with ossific deposits forming inequalities, sharp ridges, and projecting spiculæ, shaped somewhat like the thorns of the wild briar. What renders the case more singular is, that the dura mater was perfectly healthy, and without perforations; there was not a single spot of matter or caries, the affected bones were undiminished in solidity, and seemed, with the exception of those morbid growths, to be quite free from disease. It would appear, that this affection was different from the former, which yielded so quickly to the use of mercury; and that, in the latter instance, we have an example of ostitis, or painful exostosis. You are aware, that whatever substance is acquired by bone, in addition to its natural dimensions, has been termed exostosis, and you will find various species of this morbid growth mentioned in books. Of these I do not intend to speak, but will remark, that affections of the surface of bones are often attended by very severe pain, and are sometimes extremely rapid in their progress. There was lately, in this hospital, a case, which illustrated, in a very striking manner, this rapid growth of bone. The patient was a man of gouty habit, labouring under arthritis, and it was observed that he had exostitic swellings on different parts of the cranium, particularly one or two behind the ear, which came on in the course of ten days, and he stated that he has known them to appear so soon as two or three days on different occasions. Some of these tumours evidently consist of solid bone, others of shorter duration seem to be of the nature of tophi, or nodes, and they are attended with very little pain. It is, however, a very difficult matter to assign the date of the spines and ridges in the present case, and it is also impossible to say whether they arose from venereal or from the abuse of mercury, or whether they were the result of a peculiar cachectic habit. There is another very remarkable feature in this case. The middle lobe of the brain is here found resting on a spicula, about two lines in length, and very sharp, but we have no inflammation of the dura mater, no local inflammation of the substance of the brain, and no occurrence of convulsions or epileptic fits. In various works on cerebral diseases, you will find it stated that the formation of ossific spiculæ within the cavity of the skull is accompanied by epileptic convulsions. Yet here we have twenty spiculæ or more sticking into the brain in every direction, and during the whole course of the disease the man has not a single fit. Within a short period of time I have witnessed three fatal cases of disease of the bones of the cranium, each accompanied with a different train of symptoms. In one of them there was hemiplegia; in another, epileptic fits; and in the present case we have anomalous symptoms. These cases will prove a useful lesson to you. When a person who has been taking mercury gets a pain in his head, which keeps him awake at night, and you suspect it to be internal periostitis, remember that you have a dangerous disease to manage. I may here detail another case. A man in Sir P. Dun's hospital got a pain in the most prominent part of the parietal bone, with some slight tenderness on pressure over the part, for which he was leeched and blistered without relief. He lay constantly awake at night, and his pain was very severe, but he had no febrile symptoms. After some time, he suddenly got an attack of convulsions, succeeded by coma and death. On dissection, we could find no appearance of caries, or formation of matter, but the bone to a considerable extent seemed as if it was worm-eaten, and one part, about the size of the palm of my hand, was divided into twenty or thirty little pieces, resembling the *ossa wormii*, which shook whenever you moved the parietal bone. Connected with this state of the bone, there was a cartilaginous hardness of the dura mater, and softening of the subjacent portion of brain. I mention this case chiefly because I have never seen any description of a similar affection of bone. Before I conclude, I wish to remark that in the case now before us of the great developement of ossific spiculæ, independent of any affection of the dura mater, (which stands in the relation of a periosteum to the internal table of the cranium) it would appear that we have some proof that the growth of bone may be independent of the periosteum. On the whole, I am inclined to look on those productions as an instance of the morbid growth of bone, accompanied with severe pain, but without the usual symptoms of inflammation, properly so called.

Let me now make a few observations on a case of syphilitic eruption in the hospital. Ten weeks ago the patient had chancre; on his admission, he stated that he had, a short time previously, severe pains in his joints, followed by the eruption which at present occupies the entire body, except the lower extremities. The disease does not appear on his legs or hands, but is thickly scattered over the trunk, arms, and scalp, and, as is generally the case, his pains subsided on its appearance, which he attributes to two little mercurial pills that drove it out. It is a curious fact, in this and many other instances, that the eruption produces a cessation of the constitutional symptoms. This must have arrested your attention in observing the phenomena of several of the exanthematous fevers. In the same way,

many forms of syphilis are preceded by a regular attack of fever, which subsides on the appearance of the eruption. Sometimes the fever which ushers in a syphilitic eruption is of a more chronic nature; its symptoms are obscurely marked, and its progress slow, yet it is always relieved by the breaking out of the disease on the surface of the body. In the present case, the eruption is not in itself deserving of much notice; it is one of no uncommon character; but as there are a great many varieties of syphilitic eruptions, it is proper that you should be made acquainted with them. In the first place, I would observe that there is nothing so Proteus-like, so varying in its shades and character, as venereal eruption. You have it appearing under the different forms of scales, papulæ, pustules, tubercles, and exanthemata. I have never seen it under the form of bullæ, but I do not deny that this may occur. This great variety in character is very singular; and another curious fact connected with it is, that when a venereal eruption assumes one of those forms, it preserves it during its existence, and does not pass from one form to another. It may happen, that when papulæ are very much inflamed, there may be an accumulation of the fluid contained within them, so as to bear some resemblance to suppuration; still no pathologist would call the eruption pustular. You may meet with cases also where there are vesicles mixed with the pustules, but this does not destroy the pustular character of the disease; for as I have remarked before, whatever form exists from the commencement, remains unchanged. Well, what is the character of the eruption in this patient? We examined the body, and found its surface thickly but irregularly covered by it; it is sown over the skin, as if a person had sprinkled him with a mop; some parts have entirely escaped, in others the spots are so close that there is not a line of sound skin intervening. In some places they come within half a line of each other, and yet the skin between them is as fair and uninflamed as possible. The patches formed by clusters of these spots are rather irregular in their shape and outline, but somewhat intermediate between kidney shaped and circular. I believe the form originally tended to the circular, but owing to the coalescing of several points, so as to form spots, this irregularity has been produced. With respect to their extent, they are about the size of a thumb nail; with regard to colour, of a copper red; their surface is flattened, but raised considerably above the level of the surrounding healthy skin, and runs down suddenly to it, the edge of the spot being at a perceptible height above it, as we could easily perceive by the touch, and by the shadow which was formed when we held the candle opposite to it this morning. These spots present also a slight degree of desquamation; and to finish the description, there is not the slightest exudation of lymph, serum, or matter, on the surface. What kind of eruption is this? The only class of Bateman under which we can range it, is the exanthemata, a class under which he comprehends nettlerash and measles, two diseases of very different character. The plain English definition for the eruption under consideration is, an eruption of spots or blotches, elevated, irregular, with perfectly white interspaces, finally attended by a scaling off of the epidermis, a feature possessed in common by all classes of cutaneous diseases. If you compare this eruption with spots of psoriasis and lepra, you will perceive a very great difference so far as scales are concerned; here there is only a slight desquamation, such as we observe towards the termination of slightly inflamed papulæ, but nothing like the enormous quantity of scales or the morbid alteration in the cuticle which characterize the former diseases. It may be argued that, as measles consist of blotches as well as this disease, they may be ranged under the same class; this, however, is not the case, the blotches in measles run into patches of greater or less extent.

There is another circumstance connected with these venereal blotches, namely, that they have numberless shades of difference, varying from the distinct, elevated, and full copper-red, such as you have in the patient now in hospital, to others which are indistinct, faint in their outline, and seen, as it were, in a cloud, like measles dying away. It is easy to recognize them when seen in a strong light, and particularly when the contrast is very remarkable between the diseased patches and the surrounding healthy skin; but when the affection is very slight, it often spares the face and hands, and persons with this eruption frequently go about their business without the slightest suspicion of having any venereal complaint. Another thing that tends to this freedom from suspicion is, that this eruption is accompanied by very little constitutional derangement, and is frequently known to disappear without any remedy whatever. The only remarkable constitutional symptom is, that the nervous system suffers in a peculiar manner, not to be accounted for by the phenomena of the complaint. Persons labouring under it pass the night very often without any sleep, though there is no fever present. If a patient chances to take a glass or two of wine, or punch, more than ordinary, he is perfectly sleepless, though he does not suffer any particular pain or irritation. One of the most remarkable features in this man's case was a total absence of sleep; and you remember the peculiar way in which I treated it. I treated it as I did the restlessness of delirium tremens on a former occasion, by tartar emetic and laudanum; and you have seen how rapidly this state of the nervous system yielded to the remedy, and our patient was enabled to enjoy comfortable sleep. I would not give laudanum alone in this case; the man was of a strong and full habit, in which you will generally find the combination of a diaphoretic with an opiate most valuable.

Moreover, tartar emetic itself possesses a narcotic power, and nothing is more common than to see a person fall into a tranquil sleep after a dose of James's powder. I am convinced, in fact, that the preparations of antimony do certainly possess a narcotic influence, and I look on the combination of tartar emetic and laudanum as a medicine of the highest value. With respect to the disease in question, I have to remark further that the accompanying sore-throat is neither very annoying nor very permanent. It is generally but superficial, and you never find those foul and deep ulcers which characterize more malignant forms of venereal: a blister, a few leeches, and a mild gargle, are commonly sufficient to alleviate or remove it.

With respect to the treatment of this form of disease, you are to bear in mind that it usually occurs in persons of unbroken, young constitutions; that it is not accompanied by any particular fever, and that it frequently disappears without any medical aid. In the commencement, purgation, or even venesection, may be necessary; but, I believe, in most instances, as there is no proper fever, we may dispense with much of the antiphlogistic plan, and after having relieved the agrypnia, which is the most prominent and distressing symptom, by means of tartar emetic and opium, we may have recourse to the decoction of sarsaparilla and nitric acid, with warm bathing. These, with time, will cure the disease. I do not think mercury indispensable to the cure of this affection; at the same time I am willing to allow that you will find some cases of this blotchy venereal which cannot be completely cured without mercury, but the generality of them do not require it, and I would always be averse to prescribe it at the commencement.

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

At St. Thomas's Hospital, Session 1833.

Hysteria—Ulcerated Scirrhus of the Uterus—Rheumatic Inflammation of the Elbow Joint—Periostitis—Symptoms of Hysteria—Globus Hystericus—Clavus Hystericus—Distinction between Peritonitis and the Tenderness caused by Hysteria.

During the last week, gentlemen, there have been six of my patients discharged from the hospital; four females and two males. Of the four females, there was one case of hysteria, one of ulcerated scirrhus of the uterus, one of rheumatic inflammation of the elbow joint, and one of periostitis.

I will first call your attention to the case of hysteria. Now, this disease often assumes such a Protean variety of shapes, as to defy the possibility of any short definition. It is, however, characterized by convulsive affections, to a greater or less extent, both of the voluntary and involuntary muscles of different parts, occurring in paroxysms, accompanied by more or less insensibility, though that insensibility is rarely *complete*, there being generally some degree of consciousness of what is passing around; there is sometimes violent struggling; often pain of the head, either of the forehead or occiput; the countenance sometimes flushed, and the eyes suffused, though occasionally there is neither; mental dejection and torpor in the intervals between the paroxysms, with a disposition to frequent sighing, followed by crying or laughing, the one often alternating with the other, so that the patient in the midst of a violent paroxysm of crying or sobbing, will burst into an immoderate fit of laughing; a sensation of choking in the throat, sometimes almost appearing to threaten suffocation; the respiration hurried and laborious, with heaving of the chest; harsh, dry, spasmodic cough; frequent palpitation of the heart, with throbbing of the carotids; spasm of the glottis and diaphragm; the abdomen often tense and tumid; the stomach and intestines filled with flatus, rolling about, and making a noise as though forty pumps were at work, and which, by passing up the œsophagus and pressing on the air passage, constitutes the globus hystericus, and induces a feeling of suffocation, caused apparently by irregular spasmodic contraction of the muscular fibres of the œsophagus, which for a time prevents the escape of the flatus; there is the same spasmodic contraction, too, of the muscles of the whole alimentary canal. Occasionally the stomach itself is so irritable that every thing taken into it is instantly rejected; the bowels most commonly are torpid, though sometimes they, like the stomach, are irritable, and there is frequent diarrhœa; in the majority of cases, the urine is secreted in increased quantity, pale, limpid, nearly colourless, passed frequently, and without difficulty; in others again, though secretion may still continue abundant, the muscular fibres of the bladder refuse to act, and the distended organ is obliged to be relieved by the catheter.

Sometimes there is a severe and constantly fixed pain in some one part, most commonly over one eye, and which pain the patient speaks of as being like a nail driven into the part; this is termed clavus hystericus, and is most frequently met with in females. The pulse in hysteria is variable, usually very quick, and differing of course in strength, according to the state of the vascular system as regards any tendency to plethora; for the disease attacks the plethoric as well as the opposite condition, though the latter are certainly most prone to it.

Now in some cases, you will find the whole of the symptoms present which I have just enumerated, in others only some of them; but one of the most constant (especially in females) and the most to be relied on, as singularly

diagnostic of the disease, is, a remarkable irritability of the sentient extremities of the nerves of the neck, chest, and abdomen, on the slightest pressure, by which the patient appears to suffer excessive pain, and which in many cases is sufficient to bring on the hysterical paroxysm; there is some pain often complained of, even on making pressure on the clavicles, shewing the necessity for caution; but this tenderness may be mistaken for peritonitis, and treated as such. Whenever this pain is so superficially produced by pressure on the abdomen, it is right to press the different portions of the chest; and if the same pain is produced there, you may be satisfied that it is not the result of inflammation.

Now the term hysteria, derived from υστερα, the Greek word for womb, necessarily implies that the uterus is the seat of the disease. In many instances, some derangement of that organ may be the exciting cause; but in the majority of cases, the term is inapplicable, because the exciting cause may proceed from some derangement of function in the alimentary canal; may be traced to the suppression of some habitual discharge, not merely the menstrual, but from other organs or tissues. Strong mental emotions, as anger, fear, surprise, ungratified passions, will often bring on hysterical affection, and therefore I have no doubt that the seat of the disease is in the brain and nerves; that the disease does not necessarily arise from any morbid condition of the uterus is quite clear, because we meet with the same affection frequently in males. The ancients, too, were aware that the uterus was not always the organ affected, yet they believed the majority of the cases was dependent upon it; they entertained some curious physiological and pathological views of this disease, when attributable to the uterus. Aretæus states, that the uterus is like one live animal within another, ομοιον τι Εωον εν Εῳω, and endowed with the capability of moving about the abdomen at its pleasure. Hence he imagines that the suffocative sensation or spasm was produced by the uterus choosing to quit the pelvis, and to pay a visit to some of the other abdominal viscera, sometimes to the liver, spleen, or the scrobiculis cordis. They were aware, too, of the occasional good effects of fœtid medicines in this affection, which I told you in a former lecture I believed chiefly depended on their making a strong impression on the mind, through the medium of the olfactory nerves. They, however, imagined that their modus operandi was different; they believed that the uterus was gratified by pleasant smells, and disgusted by stinking; so if there was prolapse of the uterus into the vagina, they would apply different fœtid drugs in the way of suffumigation to the vulva, with the view of causing it to retreat to its proper situation; if, on the contrary, it had chosen to take a journey into the upper part of the abdomen, there they would apply sweet smelling scents for the purpose of coaxing it back again. Now, with regard to the treatment of hysteria in those cases where there is reason to suspect any congestion or inflammation in the uterus, blood-letting will be necessary; occasionally it may be proper to take it from the arm, but in most cases you will find it most effectual to abstract the blood from the loins by means of cupping glasses, giving at the same time a good brisk purgative; sometimes leeches freely applied to the hypogastrium, or, what is better, to the vulva itself, will answer the same purpose, though the cupping is more to be relied on, because we can take the quantity we wish. I have frequently seen the most violent hysterical paroxysm put a stop to by the abstraction of blood in this way; if, however, there is no proof of either inflammation or congestion of the uterus, but the symptoms should be such as to denote congestion of any portion of the brain, then I would advise you to abstract the blood from the head, and as the cerebellum is the portion of the brain which we most commonly find affected, the patient generally referring the pain to the back of the head, and there being often increased heat there, then I would apply the cupping glasses to the occiput. In some such cases I have seen the same instantaneous relief follow this treatment.

If, however, there is neither inflammation or congestion of the brain or uterus, but the hysterical paroxysm depends upon irritation, bleeding will then do no good. It is true, that if you do bleed, the paroxysm will, for a short time, be relieved, and the patient fancy herself better; but it will return with increased force after the bleeding, and after each repetition of the bleeding. In such cases, for the purpose of relieving the paroxysm, if it is severe, attended with much spasm, I would advise you to give a full dose of opium, and afterwards rely upon the exhibition of tonics and stimulants, some of the preparations of iron being the best that you can employ, either alone or in conjuction with some of the extract or tincture of henbane, if the irritability should continue.

Purgatives are generally called for, whether it arises from inflammation or irritation, for it is very seldom that this affection is accompanied by diarrhœa, the bowels being in general very torpid, irregularly distended with flatus, and the muscular fibres of the intestine requiring some active stimulating aperient to excite them to the performance of their functions. One of the best aperient medicines, under these circumstances, is half an ounce of castor oil, with two or three drachms of oil of turpentine, given every, or every other, morning, according to circumstances; the turpentine appears to be of advantage, by restoring the tone of the muscular coat of the intestines; stimulating glysters too, either of turpentine, or of assafœtida, are often of advantage in the same way, when the lower bowel is distended with wind. In the severer forms of the dis-

ease, the application of cold to the body is often a most effectual means of putting a stop to the paroxysm. I believe, that, in many instances, the disease is, to a certain extent, under the patient's control. I do not mean that they are shamming, but that, by a strong effort, they can often prevent the paroxysm. Among others, I remember a striking example of this many years ago, in St. Pancras Infirmary. A young woman, who had had disease of the hip-joint, for which she had been, at different times, in almost every hospital in London, was brought into the infirmary, suffering under the most violent paroxysms of hysteria that I ever witnessed; her struggling being so violent, pulling her hair, tearing her throat, and beating her breast, (symptoms which we often meet with in the disease), that it required five or six people to restrain her from injuring herself. I had witnessed two or three of these paroxysms, and had observed, that whenever any thing was done, that appeared to thwart her inclinations, she immediately brought one on; they would last generally an hour or two, and sometimes longer. On witnessing one day another paroxysm, I called for a pail of cold water, and, immersing a small blanket in the water, laid it wet from the pail over the belly and thighs, with the effect of instantly stopping the paroxysm; the sensation was so unpleasant to her, that whenever the paroxysm was about to occur in future, it was only necessary to produce the pail in order to prevent it.

The great sensibility of the sentient extremities of the nerves on pressure, over the chest or abdomen, is common to hysteria, whatever may be the exciting cause; but where there is irritation or congestion of the uterus, you will find that this pain is greater, and the hysterical paroxysm more easily induced by pressure over the hypogastric region than over any other part of the abdomen, more especially by pressing over the pubes against the fundus of the uterus.

Sometimes the hysterical paroxysms are so severe as to be mistaken for epilepsy; it may, however, be distinguished from that disease by there being no frothing at the mouth, by the insensibility not being complete, by the pupils of the eye obeying the stimulus of light, and by an expression of pain being produced upon any part being pinched or pricked. After long continued repetition of hysterical paroxysms, it sometimes becomes really epileptic, and is then very difficult to cure.

There was a very curious case, of the disease which I am about speaking of, occurring in Anne S———, aged 20, admitted into Elizabeth's Ward, January 24th. Her mother stated, that she had been ill about four years, but only seriously so for the last two, and she has been generally able to work until seven weeks ago. During the whole of the four years she had complained more or less of pain in the region of the heart, with some palpitation and dyspnœa, increased on making any exertion, attended by slight cough without expectoration. Sixteen months ago, these symptoms became much increased, and she was then admitted into this hospital, under Dr. Elliotson's care, remained in about five weeks, and then quitted, having been much relieved by local bleeding.

About seven weeks ago, the palpitations and pain in the situation of the heart, which she described as shooting to the scapulæ, had become so distressing, that a physician directed her to be bled from the arm three times in twenty-four hours, losing a pint at each bleeding; this, she stated, was followed by some relief, but in a few days she was as bad as ever.

In the last four weeks, according to her own account, she had been in the habit of spitting about half a pint of florid blood daily, preceded and accompanied by a fit of coughing; and that, on three occasions, when the expectoration had been less profuse during the day, she had *vomited* about half a pint at once in the evening: according to her statement, the blood, which she expectorated, was not always florid, but was sometimes dark coloured and lumpy, and seldom mixed with any mucus; neither has that which she vomited ever been mixed with the contents of the stomach: the last time she vomited blood was two days ago: has been bled from the arm six times in the whole during the last seven weeks, and has been salivated by mercury, but her mouth has been well three weeks. At the time of her admission, she was pallid, very feeble, complained of violent cutting pain in the region of the heart, extending to the clavicles, and also of severe pain in the back of the neck and head; there was almost constant spasmodic contraction of the muscles of the right side of the neck, by which the head was drawn down to the right shoulder; the respirations were 120 in a minute, attended by a chucking and hiccuping sound, showing that there was convulsive action, both of the diaphragm and glottis. Has frequent fits of crying or sobbing on being spoken to, or touched; her cough now was very slight, so slight as to make me doubt that she had any, but she still continued to spit a small quantity of thin bright-coloured blood, mixed with a little frothy saliva, but without any effort of coughing, or retching; her stomach, she said, was so irritable that she vomited almost every thing she put into it; her bowels, she said, were open, and the catamenia regular; the tongue was red at the point and edges, and rather glazed in the centre; pulse at wrist 120, small, but somewhat sharp, or jerking.

Now, upon examining the chest by the ear, as accurately as the hurried state of her respiration and her extreme agitation would permit, I could discover nothing unnatural in the respiratory murmur; action of the heart was of course, as shown by the pulse, quick, and the impulse sharp and slightly jerking, but there was not any indication of disease either of it or of

the pericardium, excepting that she complained of severe pain on pressing between the intercostal spaces over the heart. Now, this might have led me to imagine there was pericarditis, but then, on pressing on any other part of the chest, or even on the clavicles, the same degree of pain was experienced, and a slight hysterical paroxysm directly followed; the abdomen, over the whole of it, was equally sensible of pain on the slightest pressure; the region of the uterus not quite so much so as the epigastrium. Now, this was the state of things when I first saw her on the Friday, the day after her admission. She had, at my request, not been previously prescribed for, and I found, from the sister of the ward, that she had passed a very tranquil night, slept well, and, while asleep, that her breathing was quite natural, but that, on awaking in the morning, the symptoms I have described immediately returned.

Now, the treatment consisted in first ordering the bowels to be well cleared out by means of five grains of calomel, followed by half an ounce of castor oil, and, as soon as the bowels had well acted, gave her liq. opii sedativi, ♏ xxxv., and, for the purpose of allaying the irritability of the stomach, ordered her two minims of the hydrocyanic acid to be taken every six hours. On the next day, I found that the purgative had acted; the evacuations were natural; the opium had produced tranquillity and sleep; she had not vomited, had spat some blood, but not much; altogether she was better, but still complained of some nausea and slight heat at the stomach: this, with the redness of the tongue, induced me, as a precautionary measure, to apply twelve leeches and a blister to the epigastrium, while, at the same time, I added half a drachm of the tincture of henbane to each dose of the hydrocyanic acid; the bowels to be kept open, when confined, by a dose of castor oil. She pursued this plan during four days, when, finding the respiration becoming much more natural, the pulse varying from 108 to 112, and the paroxysms much milder and less frequent, I felt assured there was no inflammation, and ordered her the carbonate of iron, one drachm every six hours, with the shower-bath daily; in three days, the carbonate of iron was increased to two drachms every six hours. She continued rapidly to amend, and went out the last day of February quite well.

Now, it was a matter of surprise to me, where the blood she spat up came from. It was neither brought up by cough or vomiting, but, for many days, she spat from the mouth a small quantity of thin florid-coloured blood, mixed with frothy saliva; and it was curious, that this only occurred at one period of the day, between nine and ten o'clock on each morning. As there was not the slightest reason to believe that it came from her lungs or her stomach, I of course examined her mouth and throat; there was nothing to show that it came from the gums; but I found the right tonsil enlarged, red, and ragged, and therefore I have no doubt but that the blood was produced by suction, or by pricking the tonsil gland with a pin, for the purpose of deception. Not that I mean to say that the disease was feigned, for undoubtedly she was suffering under very severe hysteria; but we often find young females, so afflicted, practising the strangest vagaries, for the purpose, I imagine, of exciting sympathy, and such, I believe, to have been her motive.

With regard to the exciting cause in this case, I do not believe that there was any congestion or irritation about the uterus, but that it was purely mental, arising from attachment to some young man, named Charles, who, it appeared, had transferred his affections, previously plighted to her, to some other young lady. The mental irritation produced by her discovering this, brought on the whole train of symptoms, which you witnessed when she came here. She lived a few miles from London, and came to this hospital, it appears, in the hope of inducing Charles, who lived somewhere about town, to take pity on her state of health, and to come and see her. Her plan succeeded, for, I believe, Charles did pay visits to her regularly every day. Now, certainly in this case, I will not take the whole credit of the cure to myself, for Charles materially assisted, by tranquillizing her mind, and therefore the remedial agents had a fairer chance of producing their effects.

About ten days before she went out, I accidentally examined her abdomen. I found it tumid, presenting a circumscribed tumour, about the size of a female in the fifth month of her pregnancy. On examining the breast, the areola round the nipple was darker coloured than common, and I certainly thought she was in a fair way to produce a little Charles (*laughter*). As I mentioned, at the time, my suspicions to the gentleman going round with me, it is but right that I should give equal publicity to my acknowledgment that I wronged her, for, in about four days afterwards, the menstrual discharge took place, and after that the abdomen was only of its natural size.

You will observe, gentlemen, that before her admission into the hospital, she had been treated very actively. She had been bled six times from the arm, and, on one occasion, had lost three pounds of blood in twenty-four hours; she had also been salivated. I do not mean to impugn this treatment; her symptoms might have *then* been such as to render it proper: but when she came here, there was not the slightest proof of any thing like inflammation or congestion, either in the brain, lungs, heart, pericardium, or uterus. It was merely the redness of the tongue, and the heat she said she felt in the stomach, which induced me, as a precautionary measure, to apply twelve leeches to the epigastrium, and which, by the by, I believe, were not really called for, and did no good. Had I continued depletory measures, I am satisfied I should have done

much harm. I think this is proved by the case yielding so quickly to a tonic plan of treatment. It is certainly a very interesting case, gentlemen, and well worth your attention, for it is such as you will not unfrequently be called upon to treat in your private practice.

The case of rheumatic inflammation of the elbow was also in the same ward, and occurred in Elizabeth Moore, a strong, healthy-looking, servant girl, aged 19, who was admitted on the same day as the last case, Jan. 24th. She stated, that five days previously she was attacked by pain of the right knee, with swelling. After two days both the pain and swelling of the knee subsided, and the left elbow directly became excessively painful, red, and swollen, with greatly increased heat, and the slightest attempt to bend the joint produced exquisite pain: there was also some swelling of the left hand. Complained of constant headache and want of sleep; tongue white; bowels open; menstruation regular; pulse 92, moderately full and firm. This, then, was clearly a case of rheumatic metastasis, from the right knee to the left elbow.

The treatment simply consisted of applying thirty leeches to the left elbow, constant application of cold lotions, and she took half a drachm of the wine of colchicum three times a-day, three grains of calomel with ten of the compound powder of ipecacuanha every night. The thirty leeches were applied three times on three successive days before the inflammation began to diminish materially; afterwards a blister, when the pain became reduced; but in a few days the inflammation again increased, and twenty more leeches were applied to the elbow, and the blister was repeated. At this time her mouth became slightly sore from the mercury; the inflammation soon diminished; and on the 27th of Feb. I discharged her quite well. I merely mention this case to show you that mercury is more beneficial than colchicum alone, when the rheumatic inflammation attacks ligamentous tissues. I have often treated similar cases with colchicum only, in conjunction with local depletion and counter-irritation, and have failed in curing the patient, until I had recourse to mercury.

The case of ulcerated scirrhus of the uterus was admitted on the 6th of Dec. last. The patient was a married woman, aged 39; had twice miscarried, the last time four years ago, but never had a live child. The menstrual discharge had always been considerable, and regular as to period; and, in the intervals, she had been constantly the subject of leucorrhœa. On her admission, she was pallid and emaciated, complained of occasional severe darting pain in the womb, with constant pain across the loins, and in each groin. Great pain in the fundament, with frequent desire to go to stool when there is no occasion. During the last seven months has been subject to a constant discharge from the vagina, often very profuse, sometimes of whitish-yellow colour, but oftener with a mixture of blood, and having an offensive odour. Still continued to menstruate occasionally, though not regularly. Attributed her present state to her husband having injured her eight months ago, after which she experienced great pain on connexion, and soon after which the present discharge commenced. She stated, too, that for more than twenty years she had been subject to a swelling, or fulness, in the right iliac region, which was very painful on pressure, but that it entirely subsided about three months ago, after losing, suddenly, as much as two quarts of blood by the vagina, while taking a long journey.

She was frequently attacked with severe colicy pain in the bowels, accompanied by distressing flatulence and constipation. The stomach, too, very irritable, so that, for many days together, she vomited whatever she took. The urine scanty and high coloured, and often passed with much pain. Considerable pain in the hips and thighs; palpitation of heart, with occasional fits of hysteria; pulse full and strong. Upon examining the abdomen, there was considerable pain on pressing deeply above the pubis, over the fundus of the uterus. No enlargement in the belly, but the glands in each groin enlarged, and so hard that they might be properly termed scirrhus. On examining the vagina, it was much thickened and indurated; the uterus, as is usual in these cases, was felt prolapsed; the neck enlarged, hard, and painful; the mouth sufficiently open to admit readily the point of my fore-finger; feeling very scabious, and causing great pain when pressed against. There was considerable discharge, during my examination, of a sanious fœtid fluid.

Now, it was plainly a case of cancer of the uterus, involving the vagina, and which would ultimately extend probably both to the rectum and bladder.

The treatment, of course, could only be palliative. As there appeared to be some inflammatory action going on, she was cupped from the sacrum to eight ounces, from which she experienced considerable temporary relief. Occasionally, too, she had twelve leeches to the hypogastrium, from which she also found so much ease as to ask for them every now and then. The vagina, too, was directed to be washed out three or four times a-day with a *tepid* injection of the liq. plumbi subacet. dil. with some tincture of opium, in the proportion of a drachm and a half of the tincture of opium to a pint of the solution of the diluted subacetate of lead; and ten grains of the extract of hyoscyamus were given every night. As the disease advanced, the stomach became at times more irritable, and the vomiting urgent, but was controlled for a time by the hydrocyanic acid; opium was given internally, but without affording much relief; suffered distressingly now from frequent desire to pass urine, which was accomplished with difficulty and pain; the pain, too, in the fundament

became more severe; suppositories of opium were introduced, but without advantage. She derived most benefit from opiate injection, thrown up the rectum night and morning: viz. Tinct. opii. ℥ xl. decoct. amyli ℥iij; afterwards the opium was increased to ℥l. Latterly the colicy spasm was so severe that I gave her half a grain of the muriate of morphia, which immediately relieved her. About the beginning of February, I again examined her, and found the ulceration much increased, and the os uteri much more patent. She began to be tired, I suppose, of being in the hospital, and last week quitted it of her own accord. She was wrong; for she will not, I think, live so long out of it, as she probably would in;—and here, all the many distressing symptoms, which she from time to time experienced, were immediately attended to, and generally successfully palliated, which cannot be the case at her own home. These are horrible cases; you will meet with them occasionally in private practice, and unfortunately will not, I fear, be more successful in your treatment than I was in this case.

You will observe that, in this case, although there was an incurable organic disease of the womb, I did not hesitate several times to deplete locally, by means of cupping glasses and leeches. You will find that these cases are often accompanied by some degree of inflammation, and whenever that is the case, great temporary relief is afforded by the local abstraction of blood. It was so in her case. The cupping glasses may be applied to the loins, or to the sacrum; or if leeches are used, they may be applied to the hypogastrium, or to the vulva itself. The great object is to relieve the pain, which in these cases is often horrible, and for this purpose we are obliged to have recourse to narcotics, of which class none is to be so depended upon as opium. It is also a point of great consequence, as a means of prolonging life, to maintain the power of the stomach; which, from the sympathy that exists between it and the uterus, rarely fails, as the disease advances, to manifest disordered action. In the early stage this is best done by mild tonics, as some of the simple vegetable bitters; and in the advanced stage, when it has already become irritable, the hydrocyanic acid is the best remedy we can employ for that purpose. Suppositories of opium, or injections of opium, are also highly useful means for the purpose of temporarily quieting pain. The irritability, too, of the uterus, as well as the discharge, is often diminished by the use of such injections into the vagina as were used in the present case.

Occasionally the discharge is so fœtid as to be no less offensive to the patient than to the bystanders. This may often be pretty effectually remedied by frequently washing the vagina out with a weak solution of chloride of lime. My reason for bringing this case forward is, because I think it only right that I should openly speak of those cases in which I can do no good, as well as of those which derive benefit from my treatment.

The case of periostitis presented nothing of interest; it occurred in a young woman of the name of Mary Clark, aged 25, who said she had not been well since her last confinement, which took place seventeen months ago; complained of pain in her limbs, which were worse at night; pain in the right side of the chest; occasional palpitation, with feeling of faintness and sinking at the stomach; pain so severe at night as to prevent sleep; shin bones painful on pressure; the periosteum thickened and irregular, that of the ulna of each arm the same; had had ulceration of the throat sometime ago, for which she was in some country hospital (I think the Chester): on examining the body, I found on different parts the remains of a slightly copper-coloured leprous eruption. She denied ever having had syphilis; this I did not pay much attention to, but determined to treat it as such, therefore gave her gr. iij. of calomel, and ten grains of Dover's powder, every night, and ordered a pint of decoction of sarsaparilla daily, and applied a blister to the elbow, where she complained of most pain; her mouth became affected, the inflammatory symptoms gradually subsided, the medicines were continued, and she left the hospital quite well in a month after her admission.

The two male patients discharged, were Bevan Langbourne, the boy who was admitted under tabes mesenterica, and whose case I had mentioned at a former lecture; and Wm. Jones, the case of varicella, of whom I spoke at my last lecture. I intended, gentlemen, to have called your attention to-day to a very interesting case now in the hospital, of colic from lead, but as I perceive the time has elapsed, I must defer it until our next meeting.

HISTORY AND OBJECTS OF MEDICAL REFORM.

ARTICLE V.

PURSUING the course of Dr. Harrison's address, we come to a most important passage, which forms serious ground of complaint. It relates to the practice of medicine by chemists, who know nothing of diseases. Of this we have seen rather too much ourselves, and *ne sutor ultra crepidam* is perfectly applicable to such an abuse.

The desiderata pointed out are unexceptionable as far as they go, and they are 1st, the suppression, or at least the restraint, of empirical practice; 2d, to bar the door against the

admission of mean and low persons, by laying a fine upon all *certificates of qualification*—this is pretty well provided for by university and corporation practice; and 3d, the compulsion of practitioners to undergo a suitable education, examinations, &c. For this also (as regards members of the profession and officers in the public medical departments) good provision is made.

Much of what the learned author pointed out as desirable in 1810 has been since realised. Schools of medicine have been recognized in many provincial towns, as well as in various parts of the metropolis.

While animadverting upon existing abuses, the doctor very properly censures the indifference which used to prevail in the matter of granting certificates of attendance to students; and we must say, that a greater injury was hardly ever inflicted upon the profession and the public welfare. The well-known plan of copper-plate commendation we need not explain. All we wish to say, while upon this subject, is, that every young man, who has paid a fee to the teacher, and received a ticket of admission to the lectures, ought not, *as a matter of course*, to receive a document, setting forth how diligently he has attended to his studies; when, in some instances, he may not have shown himself half a dozen times during the season: and another thing we would advert to, reduce the engraved form (if such be considered essential) as much as possible, and let the body of the certificate be made strictly applicable to the particular case. We, for our own part, *have taught*, and have refused to grant certificates, where there has been no diligence; and, therefore, had we stated otherwise, we should have stated that which would have been untrue.

It is edifying and amusing for the philosophic observer to watch the march of improvement, as continued to the music of altering times. Truly was it said, by one of those puzzle-masters, among the ancients, who have stolen almost all the fine thoughts of the moderns *, "*Tempora mutantur, et nos mutamur cum illis.*"

In 1810, the Senatus Academicus Edinensis objected to part of Dr. H.'s plan in these words: "The proposed plan of *prolonging the period of study* would increase very much the expense of a medical education, at present very considerable." This extract carries the signature of Professor Dunbar, then Secretary to the University, professor, we ought to say, of *Greek*. Now, we are not sorry that our "Army Medical Officer" has *already* sent this nuisance to the *left about*. We can answer for his accuracy in revealing, that there was a formidable uproar in the university about the very circumstance of increasing this very expense †, and what has occurred since?

They—*the very same gentlemen* who kicked at the notion of prolonging the period of study, on the score of increasing expense, have now extended it from three to four years, and raised the class fee from three to four guineas! As for graduations, they were at the time beaten hollow by the students, as our correspondent has related; but it is possible that there may be also an augmentation, as regards the cost, there; for the opposition did not question the right of the University to make new terms with new comers ‡. Upon this gross act of inconsistency, Dr. H. has briefly, though pertinently, animadverted. "No reason," says he, "was assigned for this indelicate proceeding, or attempt made to gloss it over." We can corroborate this statement from our own knowledge: a more shameless attempt at greedy extortion has seldom indeed been made: and as its memory ought never to be forgotten, we have perhaps contributed to its preservation by placing it upon a page of this *history*.

Dr. Harrison has, with an almost prophetic spirit, advocated the pro-

* According to Dean Swift.

† See Part I. Chapter II.

‡ See Journal, vol. ii. p. 399.

priety of establishing a great medical school, with university powers, in London. Events, which have since occurred, have singularly proved the propriety of his arguments.

In these anticipations he was corroborated by Dr. Heberden and Dr. Beddoes. The former of these illustrious physicians (who, it is unnecessary to observe, was an English doctor, and one of the, if not *the*, most distinguished of the London College) thus expresses himself in one of his orations: —

"Whatever our ancestors collected from the different academies of Europe, may be found, at this day, in London. If you are desirous to search into the wonderful fabric of the body and its admirable structure, you will find them explained in the anatomical schools. If you wish to relieve the afflicted, you may draw instruction from nature herself, by attending in hospitals to the sick, and the efficacy of remedies under every form of suffering. There are gardens in the neighbourhood, filled with all sorts of herbs; and spacious museums, stored with the most valuable specimens. The libraries are full of books, and the theatres are crowded with students. To us belongs the glory that London, so justly celebrated for arts and sciences, now possesses the first place in medicine*."

Dr. Beddoes, in a letter to Sir J. Bankes, expresses himself thus: —

"London has, perhaps, more than equalled the most celebrated seminaries; and it would, I think, amount to a sort of treason against the common weal, if they should remain without being seconded by the whole public power, after the state of medicine comes to be a matter of legislative deliberation * * * *

"But let us not, at least wilfully, take a station below Paris; let our regulations aim at still greater maturity, in those whom we shall send forth to practise and teach the healing art, *ubique gentium*. What would it avail to increase the breed of practitioners a-kin to those coffee-house politicians of ours, to whom the leading paragraph of the *Morning Post*

* Had this celebrated classic delivered his oration at a later period, would he not have added to this interesting list some allusion to scientific and literary as well as medical societies? The *Medical* existed in his time, though, perhaps, its prosperity was at a low ebb. *Aliquis* became a member, and (*post hoc*, though perhaps *non propter*) he saw it rise to an unprecedented degree of splendour and prosperity, which he fervently hopes will go on increasing. The *Medico-Chirurgical* (which was but an emigration originally from the *Medical*) took its *ton* from the *West End* of the town, and, of course, made themselves not unfrequently ridiculous. *Aliquis* would not be a member, though urged strenuously upon the subject. He was afraid of being black-balled by a parcel of puppies, who seemed to him his inferiors in professional knowledge. They have, however, a tolerably good library in recent publications, as the *Medical* is *rich* in those of more remote date. Within my recollection arose the *Hunterian*, but the remoteness of its site has prevented the writer from attending any of the meetings. It is an association every way worthy of London medical philosophers, and of good practitioners. One of the most instructive illustrations of the utility of the union of real talent under gentle but firm and judicious control is to be found in the *Westminster Medical Society*. Concerning this let a word or two be permitted. *I*,—for why should Aliquis shelter himself under the editorial veil, which forms no part of *his* costume?—remember it a timid assemblage of students, to which their teachers used to go for the purpose of encouraging the others (as Voltaire says). It rose before my view like a mustard tree; and not only step by step, but (if the expression may be tolerated) by *hop, skip, and jump*, it has become the most agreeable, most tolerated, most liberal, and every way most respectable Medical Society in Europe. I do not belong to it; nor will I join any society if obliged to run the risk of a ballot; into which personal pique and enmity might, *accidentally*, find its way.

But all these excellent institutions have been utterly eclipsed by the *Medico-Botanical*. This, in my opinion, has become a *phenomenon*. I have the more claim to be attended to, in attempting to celebrate it, because I was one of the three original *Fellows*, as the *founder* styled them. These were Dr. Bree, Sir J. M'Gregor (subsequently President), and myself. The album of the Society will prove this; but, unfortunately, having had some disputes with the said founder, I threw up my commission. Nevertheless, though a sort of exile, I admire and applaud. It must become *a great tree*; and no doubt its fruit will be sought for with avidity.

stands in the place of history and political economy?—practitioners, all absorbed in the last curious case at Guy's,—or the last curious opinion from St. Bartholomew's; and not much more deeply skilled in the disorders of the individual, than the newsmongers are in those of the body politic." ALIQUIS.

CHRONIC ABSCESS OF THE TIBIA.

Mr. Brodie gives the following account of abscess in the tibia in the last volume of the Medico-Chirurgical Transactions:—

"There was a considerable enlargement of the right tibia, beginning immediately below the knee, and extending downwards, so as to occupy about one-third of the length of the bone.

"Mr. B. complained of excessive pain, which disturbed his rest at night, and some parts of the swelling were tender to the touch. The knee itself was not swollen, and its motions were perfect.

"He said that the disease had begun, more than ten years ago, with a slight enlargement and pain in the upper extremity of the tibia; and that these symptoms had gradually increased up to the time of my being consulted. Various remedies had been employed, from which, however, he had derived little or no advantage.

"My attention was directed to a spot about two inches below the knee, to which the pain was particularly referred. This part of the tibia was exposed by a crucial incision of the integuments. The periosteum now was not in the same state as at the time of the former operation. It was scarcely thicker than natural, and the bone beneath was hard and compact. A trephine of a middle size was applied, and a circle of bone was removed extending into the cancellous structure, but no abscess was discovered. I then, by means of a chisel, removed several other small portions of bone at the bottom of the cavity made by the trephine. As I was proceeding in this part of the operation, the patient suddenly experienced a sensation, which he afterwards described as being similar to that which is produced by touching the cavity of a carious tooth, but much more severe, and immediately some dark-coloured pus was seen to issue slowly from the part to which the chisel had been last applied. This was absorbed by a sponge, so that the quantity of pus which escaped was not accurately measured, but it appeared to amount in all to about two drams. From this instant the peculiar pain belonging to the disease entirely ceased, and it has never returned. The patient experienced a good deal of pain, the consequence of the operation, for the first twenty-four hours, after which there was little or no suffering. The wound was dressed lightly to the bottom with lint. Nearly six months elapsed before it was completely cicatrized: but in about three months from the day of the operation, Mr. B. was enabled to walk about and attend to his usual occupations. He has continued well to the present time, January 7, 1832, and the tibia is now reduced in size so as to be scarcely larger than that of the other leg. No exfoliation of bone has ever taken place."

The following case is also interesting:—

"The lower extremity of the left tibia was considerably enlarged; the skin covering it was tense, and adhered closely to the parts below. The patient complained of a constant aching pain, which he referred to the enlarged bone. Once in two or three weeks there was an attack of pain more severe than usual, during which his sufferings were excruciating, lasting several hours, and sometimes one or two days, and rendering him altogether incapable of following his usual occupations. The pain was described as shooting and throbbing, worse during the night, and attended with such exquisite tenderness of the parts

in the neighbourhood of the ankle that the slightest touch was intolerable.

"Mr. S. said that, to the best of his recollection, the disease had begun eighteen years ago, in the following manner. On going to bed one evening he suddenly experienced a most acute pain in the inner ankle. On the following morning he was unable to put his foot to the ground, on account of the agony which every attempt to do so occasioned. Leeches were applied several times, and afterwards blisters, but the pain increased notwithstanding. After some weeks an abscess presented itself and broke. This was followed by some mitigation of the symptoms. Soon afterwards another abscess formed and broke in the neighbourhood of the first. The two abscesses remained open for a considerable time, and then healed rapidly. Mr. S. now began to regain the use of the limb, and by degrees was able to walk as usual.

"During the following summer he had a recurrence of pain in the inner ankle, without any further formation of abscess. For eight or ten years afterwards there were occasional attacks of pain, lasting one or two days at a time; the intervals between them being of various duration, and in one instance, not less than nine months. After this, the attacks recurred more frequently, and during the whole of the last two years the symptoms were nearly as severe as at the time of my being consulted.

"On examining the limb I was struck with the resemblance which it bore to that of the limb in each of the two preceding cases. There was also a remarkable resemblance in the symptoms as described by the patient, and I could not but suspect that they depended on a similar cause. I requested that Mr. Travers, who had attended one of the former cases with me, should be consulted: and he agreed with me in the opinion that probably an abscess existed in the centre of the tibia, and that it would be advisable to perforate the bone with a trephine, with the view of enabling the contents of the abscess to escape.

"Accordingly I performed the operation, with the assistance of Mr. Travers, on the 31st of January. A crucial incision was made through the skin, the angles of which were raised so as to expose a part of the bone above the inner ankle, to which the pain was especially referred. A small trephine was then applied, and a circular portion of bone was removed extending into the cancellous structure. Other portions of bone were removed with a narrow chisel. At last about a dram of pus suddenly escaped and rose into the opening made by the trephine and chisel. On further examination a cavity was discovered from which the pus had flowed, capable of admitting the extremity of the finger. The inner surface of this cavity was exquisitely tender; the patient experiencing the most excruciating pain on the gentlest introduction of the probe into it."

MR. GUTHRIE'S CLINICAL LECTURES AT THE WESTMINSTER HOSPITAL.

Mr. Guthrie will commence a course of clinical lectures, on diseases of the urethra and bladder, at the Westminster Hospital, on Saturday next, which we shall place before our readers. The learned lecturer has, we understand, made some minute dissections of the genito-urinary organs, which were inspected by the Court of Examiners of the Royal College of Surgeons, and received their unanimous approbation.

RUMOURED DEATH OF WILLIAM LYNN, ESQ., SENIOR SURGEON TO THE WESTMINSTER HOSPITAL.

We are extremely happy to learn, that Mr. Lynn is still numbered among the living, and is rapidly recovering from his late indisposition.

THE

London Medical & Surgical Journal.

Saturday, April 13, 1833.

PROPOSED TAX ON MEDICAL STUDENTS.

Our readers will be surprised to learn, that the object of the Secretary of State, in summoning the teachers of anatomy before him, of which we gave an exclusive account in our last, was to inform them, "that the government would no longer pay the salary and travelling expenses of the inspector of anatomy," though sanctioned by the Anatomical Bill, "and, therefore, he wished to propose to them, that every person commencing the study of medicine should pay a tax of two guineas, to be appropriated to defraying the above demand," which is about one hundred and fifty pounds a year. Now, the number of students is about 1200; so that the tax on them would be 2,400 guineas, which is to be stamp-duty, to pay 150*l.* a year!!

The majority of the lecturers objected to this odious tax, and contended, that if any were imposed at all, it should not be more than the sum of ten shillings on each student. After a long discussion, the interview terminated, something after the manner of that of the young Prince of Abyssinia, "in which nothing was concluded;" but another meeting is to be held this week on this great and important subject.

The proposed impost is, we believe, unparalleled in our history of taxation, and reflects no great credit on those who manage the nation's affairs at present. The imposition of a tax upon school-boys, to save the nation the expense of 150*l.* a year, while hundreds of thousands are squandered in paying ill-deserved pensions and sinecures, shows, in the clearest light, the rigid economy of the present government. This plan reminds us of that pursued by the renowned ministers of Laputa, who held, it will be recollected, a grave council to determine upon the best mode of avoiding national expense, on transferring Gulliver's hat from the suburbs into the city.

Few, indeed, could have imagined that our government was so sharp-sighted as to see the injury the Treasury must sustain by defraying such a vast sum as 150*l.* a year. Fewer still could have supposed, that a new tax upon knowledge would be imposed on a class of society, most of whom find it extremely difficult to compass the means of procuring an education by far too expensive already.

But in reply, it has been urged, that the late act lowered the price of dead bodies, saved medical students some money, and, therefore, that a part of their savings might be fairly transferred from the pocket of the resurrectionist to the national exchequer.

We are grieved that such a scheme of taxation as this should emanate from the most enlightened, liberal, and well-meaning ministry that ever managed the affairs of this great

country, and we sincerely hope they will abandon it. The public voice has been raised against the intolerable weight of our present taxation; and this is certainly an unseasonable time to place an impost, however small, upon the education of the youth of the country.

We argue against the proposed measure on principle; and we are thoroughly convinced that the present House of Commons will not sanction it. We are inclined to suppose, that the day is not far distant when all taxes on knowledge will be diminished, if not entirely abolished, and when the Baconian axiom will be the maxim of every man, "knowledge is power."

REPEAL OF THE APOTHECARIES' ACT. ABUSES IN THE PROFESSION.

It affords us much gratification to observe, that the hour has at length arrived when the Apothecaries' Society will be brought to its proper level. Our readers are aware that the Examiners of the Apothecaries' Society have lately demonstrated their importance, by rejecting graduates in medicine, as incompetent to practise pharmacy. The Universities have felt this insult, and especially that of Edinburgh, and petitioned the House of Lords against the absurdity of allowing doctors in medicine to be re-examined by such an inferior tribunal as the Court of Apothecaries. Lord Wynford expressed his surprise at such an unusual proceeding, and stated that the impression on his mind was, that the Apothecaries' Act did not affect the rights of graduates in medicine or physicians to practise pharmacy, if they thought proper. He found, however, on perusing the act, that there was no exempting clause, and therefore maintained that the evil should be abated. An act is therefore introduced to exempt doctors and physicians, and we hope army and navy medical officers also, from the penalties of the Apothecaries' Act for practising pharmacy.

It will be recollected that an act protecting army and navy surgeons was passed in 1825, remained in force but one year, and that Lord Brougham, Mr. Warburton, and Mr. Hume were its supporters.

The new bill will pass both Houses of Parliament without any serious opposition; but we have no doubt the Apothecaries' Society will, if possible, fee some of the legal members of the Commons to oppose it.

Every one conversant with the laws relating to the profession in the United Kingdom, is aware that the Legislature never intended to give apothecaries the power of interfering with physicians or surgeons. Nevertheless, they have interfered, and fined both physicians and surgeons for compounding medicines.

Though we rejoice that their presumption will be punished, we regret to see physicians and surgeons descending from their high standing as professional men, and becoming mere tradesmen. But they are driven to this by the Apothecaries' Society, whose examiners pretend to qualify their licentiates—contrary to law,

however—to practise medicine as well as pharmacy; and their diploma is so flashy a concern, that when framed and glazed, it astounds the public; and hence the universal employment of apothecaries as physicians and surgeons, and more especially as they receive no fees, but are satisfied with the profit arising from their sale of medicines. But there is, as we have repeatedly proved in this Journal, a want felt by the public for such a class of practitioners, or for some who would receive small fees, as in France; and as none exist in this nation, the apothecaries are the substitutes, and not only attend the lower and middle classes, but the highest, without taking any fee, unless the price of medicines, and thereby excluding consulting physicians and surgeons.

Again; our consulting surgeons practise in nearly all cases as physicians, without studying as such, though, in general, they are utterly incompetent to do so. No member of the profession has prescribed for so many medical cases as Sir Astley Cooper, and no surgeon in the world is entitled to more respect; but Sir Astley has declared, "he knew nothing of physic"—*Ex uno disce omnes*. We should like to see the illustrious surgeon, or any other eminent surgeon, employing the stethoscope and unravelling the intricate diseases of the chest and heart. Doubtless they would extinguish the conclusions of the renowned Laennec in an instant; and if they failed, why the apothecaries could easily achieve the task.

As to physicians, eternal thanks to their efficient and respected College, they are in general "the nobodies" of the profession; they are deprived of the means of subsistence, and plundered on all sides with perfect impunity. Their services are not required, unless in the comparatively few instances in which the enlightened and wealthy are concerned; but as to being consulted as they were formerly, it is entirely out of the question, for the surgeons and apothecaries, whose classical and medical education is, in most cases, far inferior, usurp their rights. Such is generally the condition of the physicians of London; because the rulers at the College are a junta of time-serving, place-hunting, intriguing men, who, to aggrandise themselves, not fifty in number, neglect to exercise the powers vested in them for the protection of the interests of the whole. These, and these only, are the cause of allowing the respective rights of the profession to be infringed on, the whole to be degraded by quacks and quack nostrums, and despised by the public at large. For three centuries past has the profession been disordered and divided by the selfish policy of this benighted body; it always was, and now is, the ignis fatuus of the faculty, flickering to shed its baneful light on mankind, as recently exemplified on the cholera question, and in the distracted state of every branch of the faculty in the United Kingdom.

It is a matter of the greatest surprise to us, that the members at large do not meet and petition a re-

formed parliament against the delinquencies of this corporation. Without this, nothing will be done. The College will continue its selfish and corrupt career while undisturbed. It will not correct a single abuse—surgeons, apothecaries, chemists, druggists, midwives, quacks of all descriptions may practise medicine without a perfect knowledge of it, and without "let, hindrance, or disturbance." The future medical historian can scarcely believe that this is the state of physic in England in 1833, when he is describing the condition of the faculty in continental Europe, and in America, at the same period.

We understand that a deputation of some of the most rising and influential of the Licentiates will shortly wait upon that distinguished veteran, Sir Gilbert Blane, Bart., to request him to preside at the first meeting which is about to be held for a reform in the College of Physicians. To this enlightened man, who has been excluded from his just rights by the shameful and antiquated laws of that tottering Institution, the profession naturally looks with profound esteem. His mature council, his long experience, and his inflexible love of truth, must give to the deliberations of the meeting weight and respectability.

ELECTION AT THE MARY-LE-BONE GENERAL DISPENSARY.

The much disputed office of Physician to the Mary-le-Bone General Dispensary, vacant by the resignation of Dr. Sigmond, is again to be contested; and the 17th is appointed to receive testimonials. It is decided, that the candidate must be a member of the College of Physicians. It is supposed, that Dr. Holroyd, who has now qualified himself, will be successful. There are, however, many candidates likely to start.

EXAMINATION OF A MUMMY.

At the Charing-cross Hospital, on Saturday last, Mr. Pettigrew, in the presence of the medical officers and a number of professional and scientific men, examined a mummy, which has been lately imported into this country. The circumstances under which it had been brought over did not seem to warrant any expectation of the curiosity of the learned being in any way gratified; for it appears that some commercial speculation has caused the influx of a number of Egyptian remains of antiquity, to which no particular history has been attached. Mr. Pettigrew purchased this mummy at the sale of these objects for a few pounds, and having, as he told his hearers, been disappointed on a previous occasion, when he bought, at Mr. Brookes's sale, three supposed mummies, he did not proceed with great anticipations of any valuable discovery in his present inquiry. This naturally led to a much more hurried and unprofitable examination than would otherwise have taken place. Mr. Pettigrew made some interesting observations on the modes mentioned by Herodotus and Diodorus Siculus, of preparing these mummies; and very briefly alluded to the labours, in this country, of Dr. Hadley, Blumenbach, and Dr. Granville, who had attempted to elucidate the questions upon the different subjects that presented themselves to the inquiring mind. He then commenced his operations; but we have very much to regret the precipitancy and the carelessness with

which the investigation was conducted.

The mummy was covered with its cere-cloth, most carefully arranged, of a chestnut-brown tint. It presented the well-known appearance of those that have been generally seen in this country, and the position, the shape, and the form of limbs were concealed under the coverings, though the general contour of the body was visible. The head seeming of unusual size with the rest of the body, no attention was directed to the outer rollers, upon which Jomard has observed, that traces of characters are generally to be discerned imprinted. The rollers were of a compact texture; elastic, and adhered firmly to each other; they had been, most probably, immersed in some resinous or gummy substance, to produce that tenacious adhesion which they exhibited, and for which an immense deal of force was employed in the separation. A slight odour was perceptible, owing, no doubt, to the materials with which they were impregnated, rather than to the development of any effluvia from the body contained within.

Instead of any attempt being made to unroll the complicated envelopes, Mr. Pettigrew, assisted by the Marquess Moscati and Mr. Cruickshank, the celebrated caricaturist, stuck their "most unholy knives" into "the cerements," and without remorse or dread tore them one from the other! Even when Dr. Halley, in 1763, inspected the mummy, he tore them longitudinally, so as to arrive at some knowledge of the way in which the fillets were placed; but Dr. Granville has so completely pointed out the possibility of unravelling the envelopes, that his plan should have been adopted. We might have had still further demonstration of his assertion, that there is no species of bandage which ancient or modern surgery has devised, described, or employed, that did not appear to have been used in securing the surface of the mummy from the external air. He tells us, that the medical men who were present at the examination he instituted could not but be struck with the precision with which the circular, the spiral, the uniting, the retaining, the expellent, and the creeping roller had been applied. He tells us, he met with the *couvre chef*, the *scapularum*, the eighteen-tailed bandage, the T bandage, as well as the *linteum scissum* and *capistrum*.

He looks forward to such an examination of the art of bandaging, as likely to throw a new light on the history of that branch of practical surgery. The present was an admirable opportunity of investigating such a subject completely thrown away. No papyrus or any object of interest was discovered; some substance, which bore more resemblance to adipocere than any thing else, was found. Upon coming to the body, its general surface was of a brownish colour, approaching to black, and it was evident that it had been gilded, a process which was only followed when the person was either of royal blood or a chief: it was at once seen that it was a male, from the organs of generation and the beard. The whole appearance was very similar to that which has been so accurately, so ably, and so scientifically delineated by Dr. Granville in the Philosophical Transactions for the year 1825.

So much yet remains to be done by Mr. Pettigrew, that we feel persuaded he will pursue his subject with zeal, and with that learning and talent which he eminently possesses. But it is not the mere gratification of the idle curiosity of a few barren spectators that he must gratify, he must add to the stock of information which Blumenbach, Kircher, Denon, Jomard, Larrey, and, though last not least, Dr. Granville, have patiently and slowly gathered together.

EGYPTIAN RACE.

The head of the mummy, which was opened by Mr. Pettigrew, corresponds with the appearance of the embalmed heads engraved in the celebrated French work. There was a fine well

developed forehead, small oval face, and all the contour of our finest models; and it generally exhibited a formation not at all differing from the European, without having the slightest approach to the negro. This is quite at variance with the opinions of Volney, and sets the learning and industry of Dr. Prichard at nought. Volney was an enthusiast on this, as well as upon most other points; and to the opinion that the Egyptian was a negro, we owe the following passage, which in its day was cried up as a specimen of deep thought and eloquence, but which, now that the glare of the French school of philosophy has ceased to dazzle, may be thought very absurd. "How are we astonished when we behold the present barbarism and ignorance of the Copts, descended from the profound genius of the Egyptian, and the brilliant imagination of the Greeks: when we reflect that to the race of negroes, at present our slaves, and the object of our extreme contempt, we owe our arts, sciences, and the very use of speech; and when we recollect that in the midst of those nations who call themselves the friends of liberty and humanity, the most barbarous of slaveries is justified, and that it is even a problem whether the understanding of negroes be of the same species with that of white men!"

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

We had occasion last year to call the public attention to one of the most important associations that has ever yet been established, and we are happy to learn, from the following report, which has been addressed to those who attended at Oxford, that the day is fixed for an assembly similar to the two that have already taken place. To this institution, all members of the great scientific societies are admissible without ballot, and every facility is afforded for those whose ardour, in the pursuit of knowledge, would lead them to become active and useful members.

"The Report of the last meeting of the British Association for the Advancement of Science will be published in a few weeks. The following notice may, in the mean time, not be superfluous.

"The British Association was established September 27th, 1831, at a meeting of the friends of science, held at York for that purpose. Its objects were then declared to be—'To give a stronger impulse and more systematic direction to scientific inquiry, to promote the intercourse of those who cultivate science in different parts of the British empire, with one another, and with foreign philosophers, and to obtain a greater degree of national attention to the objects of science, and a removal of any disadvantages of a public nature which impede its progress.' On the ensuing days, various communications, of a scientific interest, were made to the Association, and the meeting was adjourned, to be next held at Oxford in the ensuing June.

"The meeting held at Oxford began on Monday the 17th of June, 1832, and continued on the succeeding days of that week; during which various communications on scientific subjects were made; some in consequence of applications directed by the York meeting, which were read before the whole Association, and others presented by the authors, without previous suggestion, were read at the sectional meetings, into which the members were divided according to their different provinces of science.

"A council was appointed to meet from time to time in London, for the purpose of managing the affairs of the Association; by which it was subsequently directed, with the concurrence of the Cambridge committee, that the next meeting should commence June the 24th of the present year.

"It is intended that this meeting should, in its general arrangements, be conducted upon the plan adopted

at Oxford, comprehending general and sectional sittings.

"All persons in this country, engaged in scientific researches, are invited to attend this meeting; and the managers will be especially gratified by the attendance of such foreigners as take an interest in the objects of the Association.

"Notices of new discoveries and inventions of a scientific character will be gladly received; and the managers will endeavour to secure due attention to any suggestions tending to the promotion of science."

DERBYSHIRE SPRING ASSIZES,

March, 1833,

ALLEGED MALPRACTICE AND NEGLIGENCE.

PALMER *v.* FROST.

THIS was an action, brought by the plaintiff, a woman, aged 72, against the defendant, a surgeon, residing at Bolsover, for alleged unskilful treatment and negligence. Damages laid at £300. The defendant pleaded the general issue.

It appears, by the report in the Derbyshire Chronicle, which occupies nearly ten columns, and excited immense attention, that the plaintiff received an injury on the hip, which, according to the evidence on her side, caused fracture of the neck of the thigh-bone, which the defendant treated as "a crush," while the evidence on his side was diametrically opposite.

Mr. Cartledge and *Mr. Fox*, both surgeons, were examined for the plaintiff, and proved that there was fracture of the neck of the thigh-bone, and that a surgeon of ordinary skill would know it at once. These witnesses condemned the defendant's practice, and were asked if they knew the opinion of Sir Astley Cooper on such fractures, which neither of them did. The counsel thought fit to remind them of it, by quoting Sir Astley's Treatise on Dislocations and Fractures, which confirmed the practice employed by the defendant.

Both these witnesses made admissions on their cross-examination, which the counsel condemned in the severest terms. One of them, Mr. C., had been ousted, to a certain degree, by the defendant. The other, Mr. F., "could not see what the defendant had been thinking of." A third, Mr. Evans, "did not know any state of things in which his treatment would be proper."

The *Counsel* for the defence ridiculed, we might say abused, two of the witnesses, and said they were, in their own opinion, much greater authorities than Sir Astley Cooper. In the course of his address to the jury, he stated a most important piece of information to the profession, which is this: With respect to his alleged want of skill, I submit, that, in entering into that question, you must be satisfied of his negligence also. I here mention a case which bears out my statement. It is Seare *v.* Prentice, (East's Rep. vol. 8, p. 347.), where an action was brought against a surgeon "for negligently, ignorantly, and unskilfully reducing a dislocated elbow and fractured arm of the plaintiff, of which he had undertaken the cure." It was tried at Hereford, before Mr. Justice Heath, who told the jury in his charge, that unless *negligence* were proved, they could not examine into the *want of skill*. It seemed that, on the 2d of April, 1805, the plaintiff had fallen from his horse, and told the defendant that he thought his arm was broken; the defendant thought it was not, and, after attending him for ten weeks, did not effect a cure. The judge told the jury, that unskilfulness alone without negligence would not maintain the action, and he was at a loss to know what degree of skill was required of a village surgeon.

It was proved, that the defendant declared there was fracture of the neck of the thigh-bone.

Mr. Wright, a surgeon of twenty-eight years standing at Derby, approved of defendant's mode of treatment, said that his own was very similar, and that several surgeons, now in court, were aware of the fact.

Mr. Godwin, surgeon to the Derby Infirmary, and twenty-five years in practice, had had thirty or forty such cases under his care. He stated in conclusion, "looking at all the evidence, I think that Mr. Frost's practice was most unexceptionable."

Mr. John Johnson, a surgeon of six years' standing, was of the same opinion.

The *Lord Chief Justice Denman* then proceeded to charge the jury. The defendant was charged with unskilful and improper management, and also that he acted negligently. The subject of gross negligence was left, by law, to a jury who knew nothing of surgery, and to a judge who knew just as little. It was, therefore, by the evidence alone that the decision can be given: the case was left to the common sense of the jury. Provided that the profession were fairly divided in opinion, the jury should exercise a sound discretion, and think whether what had happened to the defendant was only what might happen to any man. If they judged that he had not taken an intelligent view of the case, it could not be because the matter was clouded with dust, or the question kept at arm's length: he did not say it was so: the jury would judge from the demeanour of the witnesses whether this was the case. Another point was whether the degree of care was sufficient: not only whether there was a want of attention, whether he paid her the sufficient number of visits, but whether he sufficiently inquired into the case. If they were satisfied that there was neither neglect nor ignorance, they would, of course, give a verdict for the defendant: if he was in fault, they would give the plaintiff an award for the expenses incurred, and reasonable compensation for the injury sustained. —His lordship then read over his notes of evidence, commenting on them as he proceeded.

The trial lasted nine hours: the jury retired for twenty-five minutes, and found a verdict for the defendant.

ON THE USE OF IODINE.

BY C. J. B. ALDIS, A. B., M. B.

IODINE is one of the most important additions which the vegetable kingdom has made to our list of remedial agents. This medicine, however, has not proved so efficacious in general practice, as it seems to have done among those who first introduced it. At the same time, it would be useful to know in what complaints it might be advantageous, since it has been of so much service in checking the progress of disease.

The benefit derived from iodine in bronchocele is undisputed, but the early application of it is important. Coster affirms, that by the use of the ung. hydriod. potassæ of nearly a hundred individuals, more than two-thirds were completely cured under his hands*.

In chronic cases we must be chiefly satisfied with removing some of the inconvenience which it occasions; for we cannot expect perfect absorption in chronic bronchocele. Iodine has been found of more utility in soft than in hard bronchocele. Dr. Bardsley has recorded a trial of this remedy in thirty cases of the same complaint, fifteen of which were not at all relieved. With respect to its employment in scrofula, we are much indebted to Lugol for his perseverance. He has experimentally demonstrated, that scrofula in some of its modifications is curable. Dr. Bardsley has found from experience that iodine is superior to any remedy proposed for the treatment of scrofula. He removed scrofulous enlargements after other treatment had failed. We ought not to forget that iodine exists in burnt sponge, which was considered useful in scrofula. Dr. Mead and other celebrated physicians have employed it in scrofula †. Lugol mentions, among other cases, the relief obtained from iodine by a woman who laboured under thoracic disease with

* Good's Study of Med. vol. v. p. 321.

† Ball's Practice of Physic, vol. ii. p. 268.

tubercles in the lungs. In this country it has failed generally in pulmonary tubercles; a few cases have been recorded of its success in incipient tubercles; but these, in the present state of our knowledge, admit only of palliative measures.

Dr. Gairdner thinks it may be found serviceable in the incipient stages of the disease, but in the more advanced periods he questions whether it will prove even innocent. Iodine irritates the lungs when inhaled, for which reason it requires the addition of some anodyne tincture; and even then its employment is attended with risk. We read that the inhalation of iodine has been used in several cases of consumption; but it could not be said that in one case a cure was effected. When there is no evidence of any thing more than membranous affection, good has accrued; and in excavation certainly some alleviation; but chlorine has been used with very considerable alleviation*. Dr. Bardsley tried its power in tubercles of the lungs, but without deriving any advantage. Dr. Manson seems to have met with uniform success from iodine in chorea. Dr. Bardsley has only found it successful in two cases. The same difference of opinion is entertained by the same individual with regard to its efficacy in paralysis; some have stated that it arrests the progress of ovarian dropsy. When we consider the deficiency of absorbents in an ovarian cyst, we cannot be surprised that it exerts very little, if any, power over this disease. Mr. Mayo has wished to point out the efficacy of iodine, in the consequences of syphilis. He has recorded five cases, and is disposed to believe that the recovery of his patients was more than accidental; and anticipates that this medicine will form an useful tonic and alterative, by the side of sarsaparilla, combined with alkalies, or with the mineral acids, when used in constitutions worn out with syphilis and syphaloid disease, and where mercury is contra-indicated*. Dr. Bardsley has related five cases of ascites, depending on supposed enlargement of the liver, wherein iodine appeared to be of much advantage. The same fact has been observed by Dr. Kolk, in a work which he published on some diseases of the chest at Amsterdam, in 1826. It is proper to state that Dr. Gairdner employed it in two cases of ascites without benefit.

The following case of ascites occurred under one of the physicians of St. George's Hospital. Iodine was exhibited externally with much advantage. Elizabeth Norton, ætat 17, was admitted into St. George's Hospital on Sept. 14, 1831, with ascites, and pain in the right hypochondrium; liver enlarged and hardened; complained of dyspnœa; no orthopnœa; constant nausea; thirst; legs slightly œdematous. Urine very scanty, high coloured; pulse 120, small; skin natural; tongue whitish; bowels open.

Catamenia have ceased for five months. Has been ailing five months according to her own account, although she noticed that her legs swelled a year ago. The swelling in the abdomen and pain in the region of the liver commenced a fortnight ago.

℞. *Potass. supertart.* ʒ ij.
E melle o. n. et m.
Dicta lactea.

16. *Infricetur abdom. ung. hydrarg.* ʒ j. *omni nocte.*

22. Some yellowness of the conjunctivæ; pulse 116; skin hot.

℞. *Submur. hydrarg. gr.* iii. *alt. noct.*
℞. *Infus. sennæ* ʒ ij.
Potass. tart. ʒ ij.
Tinct. sennæ,
Syrup. āā ʒ j. *ft. haust. alt. aur sum.*
Emp. canthar. region. hypochond. dextri et postea appr. ung. hydrarg.

24. Countenance improved; urine scanty; orthopnœa; tongue clean.

27. Much jaundice; pulse very quick; skin hot.

℞. *Calom. gr.* iij. *opii gr.* i. *bis in die.*
Repr. haust. alternis auroris.

* Med. Gazette, May, 1831.

* Med. Gazette, No. VIII. Nov. 1832.

29. *Intermitr. haust. purg. Repr. pilula.*

Oct. 1. Bowels open from the medicine; much jaundice; pulse 110, soft. Arrow root.

3. ℞. *Infus. gentian c.*
Aq. cinnam. āā *f.* ʒ vj.
Liq. Potassæ ♏ xx.
Sp. æth. nit. ʒ j. *ter die.*
Repr. pilula.

5. *Interm. pilula.*
App. ung. hydrarg. fort. 3 ss. *abdom. omni nocte.*

7. *Haust. opiat. p. r. n.*

10. ℞. *Pil. hydrarg. gr.* iij.
Scillæ pulv. gr. i.
Digital. in pulv. gr. ½ *ter die.*

13. Has been severely purged; abdomen softer.

℞. *Mist. cretæ* ʒ i.
Tinct. op. ♏ iv. 6*tis horis.*
Omit. haust. opiat.

14. Bowels quieter.

17. Mouth sore; abdomen not so soft; yellowness much diminished.

Omit. ung. hydrarg. Rep. pil.

19. Much better. A chop daily.

21. Complains very much of pain in the back; abdomen less swelled; gums sore.

℞. *Ung. potassæ hydriod.* 3 i. *abdom. infric. o. n. et m.*

℞. *Ext. conii. gr.* i. *ext. colchici. gr.* ½ *ter die.*

Arrow root.

24. Much griped in the night.

H. opiat. o. n. pulv. magnes. c. ʒ ss.

26. Complains of pain in the back.

Linim. camp. c. dorso infric.

Nov. 4. Says that she is much purged at night.

Omit. pil. h. s. Perstet c aliis.

7. The fluid is almost all absorbed; colour of skin is much improved; liver much reduced in size, but still very hard, no irregular edge; urine very plentiful; sleeps well at night; bowels act two or three times a day.

11. Half a pint of porter daily.

25. The liver is very much diminished in size; no distention of abdomen.

She continued the use of the ung. hydriod. potassæ during the next month. Her general health improved much, and she appeared well. On the 28th December she left the hospital.

On the 28th May, 1832, she presented herself again, stating that a month previously her legs had begun to swell again, and ten days previously her abdomen, which was evidently much distended with fluid. The liver was perceptibly enlarged and indurated. She was ordered to use

℞ *Ung. potassæ hydriod.* ʒj. *Omni nocte et mane as before.*

She was also ordered

℞ *Liquor. potass.* ʒss. *e cerevisia ter die.*

She died on the 11th of July.

The liver was much enlarged; on cutting into the right lobe, there was found a cyst as big as the head of a child at the time of birth, containing one large and several smaller hydatids, of about the size of a hen's egg. The remainder of the liver appeared healthy in structure; the gall-bladder contained some purulent matter mixed with nearly black bile.

The right thorax was filled with sero-puriform fluid, and the lung compressed into the smallest possible space at the apex; heart healthy; the left kidney was much enlarged and very hard.

These cases are not sufficient to establish the power of this remedy in dropsy, yet it must be acknowledged, that much benefit may be derived from the employment of iodine in some cases of dropsical effusion.

The hydriodate of potass is usefully combined with mercurial ointment. This medicine, according to Dr. Christison, is generally supposed to have the same power over gôitre, and not to be so liable to injure the stomach and constitution.

Iodine, like many other remedies, will occupy the attention of the medical world for some considerable time, before its use is properly understood, and we may prophesy, that it will be a most active agent in the alleviation of human suffering.

Old Burlington-street,
April 2d, 1833.

OBSERVATIONS ON ARTERIAL POWER IN HEALTH AND INFLAMMATION.

BY J. B. SLADE,

Late Senior Surgeon to the Sussex Eye Infirmary, &c. &c.

It is the opinion of most pathologists, that, in cases of inflammation, there is always increased action; that is, greater velocity and impetus in the circulation, and greater rapidity in the beats of an artery, than is necessary to the health of the part affected; but, after taking into consideration the nature of the arterial system, including the capillary vessels, and the state of the circulation, both in health and inflammation, it will be found that such an inference is very objectionable.

To the capillaries belong two particular powers or properties, one of a contracting, the other of a dilating, character; and the question is, what is the state of these powers in the time of inflammation? That an equilibrium can be kept up between them, in disease as well as in health, is certain, and there is no doubt that the former may be greatly weakened; but whether we are, in this case, to expect an increased accumulation, weight, or momentum of blood, is a point upon which many differ. But in commenting upon this subject, it is necessary to be aware that such an accumulation may exist without the vessels being increased in action at the same time, and that whenever the blood is increased in velocity, so as to excite inflammation, the vessels which previously contained colourless, become distended with red blood. It is evident, however, that all augmented supplies of blood must first be furnished by the heart; the small arteries cannot derive it from any other source; and it is very doubtful if, during inflammation, they have any power to attract any quantity from those vessels which do not partake of the disease, and which, in health, contain more than themselves. Increase of tonicity, or contractile power, would indicate increase of action in the circulation, and any loss of that power must necessarily be followed by a comparatively greater tendency to dilatation, and consequently a weakened or passive condition of the artery, in which state, in contradistinction to the former, we look for a larger proportion of blood being collected in the disordered vessels. When an equilibrium, therefore, is not preserved between these two powers, disorder or disease must inevitably ensue; and it is from these opposite states, for they cause an essential difference in the circulation, that we may derive much information, and be able to form a more favourable diagnosis of the nature of inflammation.

Increased velocity and increased momentum have very different significations; the former exists when there is quicker motion in the blood, and the latter is seldom found but when the contractility of the vessels is lessened and the calibre increased. If there be by any means a greater portion of blood sent to a part than is natural, and is still passed on without interruption, we conclude that the powers of the vessels are augmented in proportion to effect that object.

Here is no loss either of tonicity or elasticity; in the mean time it is very doubtful whether the heart can propel an unusual quantity of its fluid to one part more than to another.

Dr. Parry observes, that "the phenomena of inflammation are always increased momentum, or a diminished velocity with increased quantity; an increased velocity with increased quantity; an increased velocity with the same quantity; and lastly, an equal velocity with increased quantity." But he considers the proximate cause of inflammation in general to be an increased momentum of blood: and, as regards the power of the heart, he believes it capable of carrying on the circulation independently of any assistance from the arteries, which would lead us to infer that no such powers as those mentioned belong to the arterial system.

The cause of any increased action in the minute arteries may be either in the vessels themselves or in the heart. Conceiving the latter to be affected, as in fever, there is an acceleration of the blood's motion, which, if unattended by a proportionably active state of the vessels, is likely to produce either inflammation or congestion. In the time of fever, we have no evidence to prove (although the diastole and systole of the heart are more frequent) that the blood is invariably propelled with greater force; and that there should be a quantity sent from the heart at each contraction, equal to what there would be in health, is very doubtful. As the velocity is increased, the momentum is, I conceive, generally or always diminished, and *vice versâ*. Dr. Cullen says, "the phenomena of inflammation all prove that there is an increased impetus of the blood in the part affected; and, as at the same time the action of the heart is not always evidently increased, there is reason to presume that the increased impetus of the blood in the particular part is owing especially to the increased action of the vessels of that part itself." We here find power given to the vessels; and it would be unreasonable to suppose that tubes so distant from the heart, so tortuously and intricately distributed, were merely passive and inert; and whenever the action of a vessel becomes increased, we reasonably calculate upon an increased velocity in the motion of the blood: one cannot exist without the other; but, in this case, there is no more than an ordinary supply of blood, and, perhaps not so much as usual sent to the part, and the caliber of the vessels, owing to their action being increased, is generally less than in health.

It has been proved, by experiment, that when the blood circulates with unusual velocity (a circumstance easily known by the frequency of the pulse) the vessels become paler and smaller; but, with an increased momentum of blood, they would be more charged, and consequently redder and larger, which implies that inflammation does not depend on an increased velocity, but on an increased quantity, and a diminished action in the vessels. The application of stimuli to an artery produces contraction, which may or may not be followed by exhaustion, inflammation, and a loss of tonicity. A preternatural contraction of certain arteries, be it occasioned by what it may, is a very common cause of inflammation; yet it does not follow that when this disease is actually developed—when we discover redness, swelling, pain, and extreme sensibility—that the vessels are in a preternaturally contracted state. It is further to be supposed that no contraction of arteries, whatever the cause may be, is of a spasmodic nature; a collapsed or impervious state of them, however, seldom continues any great length of time, the proper functions of nutrition being disordered, the textures lose their tone and power of resistance, and become exposed to the impulse of the blood behind. Some suppose an increased action is established in the vessels leading to the diseased part, to relieve the morbid condition of that part; and, supposing them to be so affected, it cannot be absurd to consider that some undue influence is communicated to them by means of the nervous intercourse subsisting between them and the disease; and I very much doubt if any such action is the effect of any primary design of nature to restore the part affected to health. When constitutional irritation ensues, the heart sympathizes, becomes more frequent in its action, and the blood is sent with greater force through the whole system; and, conceiving that the blood could not be distributed throughout the body independently of any power or assistance from the arteries, it is to be concluded that any effort to restore a diseased part remote from the heart, must be attributed in a great measure to the small arteries.

The sanguiferous vessels are so constructed as to be able to accommo-

date themselves either to a large or a small proportion of blood. In the former instance, their diameter being increased, may terminate, if too long continued, in their debility; in the latter case, there is a comparatively small caliber, which, whether owing to a deficiency of blood, or any other cause, is no proof whatever of an actual loss of elasticity, or at least capability in the artery to dilate. The circulation in this state is usually more rapid, as is discovered by the pulse, which in such a case we never find full. In an unusually dilated vessel, a greater quantity of blood and generally a loss of tonicity are found, and this is the invariable condition of all passive if not acute inflammations; yet the dilatation may exist without any such disease being present, as may also an increased velocity. The throbbing experienced about an inflamed part, and so evident in that circumscribed tumour called whitloe, is a mere shock communicated to the nerves by the blood which is propelled against the obstructed vessels, a compressed state of the nerves by effusion of serum causing greater pain than would otherwise occur. I do not conceive that the vessels preceding those that are inflamed need in consequence suffer from increased action, although it may be the case when the heart and arteries become affected; neither is the pulsation any proof of increase in the momentum and velocity of blood in the diseased vessels; added to this, the sensation is confined more particularly to that side of the inflammation nearest the heart, and the smaller the vessels, and the fewer the nerves, the less perceptible is this sensation, which is at all times synchronous with the beats of the heart, becoming more severe upon those beats being increased in force and frequency, which leads us to infer that it does not depend exclusively upon a preternatural action in the arteries behind. The sensation is also greatly influenced by the effort made to overcome the resistance offered by the congested vessels, and may hence be supposed to arise, in some measure, from the obstruction given to the due course of blood through the inflamed part, from a preternatural sensibility of the nerves of the inflamed part, and from an increased action of the heart and arteries. When depending upon the heart and arteries, the pulsation is evident to the bystander on application of the finger; when not, it is evident only to the afflicted person.

(To be continued.)

WESTMINSTER MEDICAL SOCIETY.

Saturday, April 6, 1833.

Dr. Copland in the Chair.—After the minutes of the preceding evening had been read, Professor Burnett pointed out the fallacy of those who had stated that the Vice Presidents and the Committee had not performed their duty to the Society during the present session.

A case of a peculiar disease of the skin, approaching near to ichthyosis, and said to be hereditary in the male branches of a particular family, was exhibited. The evening was principally occupied in the detail of hair-breadth escapes from pistol-ball, gun-shot, and even from the cannon's mouth, which had been witnessed by different members. Mr. Hunt, Dr. Gilkrest, Mr. King, and Dr. James Johnson, were the principal speakers.

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THE

London Medical and Surgical Journal.

No. 64. SATURDAY, APRIL 20, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXXII., DELIVERED DEC. 17, 1832.

Gentlemen,—I have already described to you the general nature of gun-shot wounds, and their chief peculiarities: you have been informed, that they are more frequently complicated with the lodgment of foreign bodies than any other kind of wounds; that they are attended with a great deal of contusion and laceration; and that they are often joined with a shattered and splintered state of the bones. I was not aware, the other evening, that our museum contained any specimen of a longitudinal fracture, produced by gun-shot violence; but I have since ascertained that there is one, which I now show you: it illustrates the circumstance very well, though the late Dr. Cole had some specimens, which exhibited this sort of fracture to a greater extent: they were taken from soldiers, who died of gun-shot injuries in a military hospital in Holland, which was attended by him and myself. I enumerated, in the last lecture, the principal cases requiring immediate amputation: with respect to these cases, I must remind you of the important rule, that you should not defer the operation, for if you were to suffer delay to occur, you would lose a great many of your patients, who might be saved under the exercise of more decision. The rule is, that, *when from the first, there appears to be no rational chance of saving the limb, the sooner you amputate it the better:* at all events, you should wait no longer, than is necessary for the removal of any great temporary depression of the system, produced by the first shock of the injury. The infinitely greater success of primary than secondary amputations, is acknowledged by every military surgeon of experience: it is found, that, if you put off amputation until inflammation, suppuration, and fever have come on, you will lose three-fourths of those who are intrusted to your care with gun-shot wounds; whereas by amputation immediately, or with as little delay as possible, you will save about three-fourths. In truth, this will not give you a precise idea of the comparative results of the two modes of practice, because the calculation does not embrace those cases which have a fatal termination, without amputation having been performed at all, and which might have been saved by early recourse to the operation. All things considered, then, gentlemen, the advantage of primary over secondary amputation must be really much greater than what is commonly represented.

I will now, gentlemen, consider the treatment of those gun-shot wounds, in which all idea of amputation is out of the question, at least in the first instance. Not many years ago, it was the custom to dilate the orifice of every gun-shot wound with a director and curved knife, as soon after the accident as possible. Several reasons were urged in favour of this practice:—first, it was alleged, that it facilitated the extraction of foreign bodies; secondly, that it removed the constriction and tension of the parts; thirdly, that it lessened the inflammation, by producing a salutary bleeding; and fourthly, that it prepared an outlet for any pus which might be formed. However persuasive some of these arguments may seem, they do not retain the same influence over modern practice which they formerly exerted; surgeons of the present day condemn the dilatation of wounds, unless some better reason can be given for it than the injuries happening to be of the gun-shot kind. They never adopt such practice, unless there be some rational object to be accomplished by it, such as the extraction of foreign bodies, consisting of the ball, splinters of bone, or portions of the dress carried into the wounds, and which it is expedient to remove as soon as possible, provided it can be done without too much irritation of the parts, and with tolerable cer-

tainty. The necessity of dilating the wound is also obvious, when a considerable artery bleeds, and a ligature must be applied to it. As for foreign bodies, they should always be extracted without delay, if their exact place be accurately known, and the operation for its accomplishment would not be too tedious, complicated and irritating. Then you would be justified, not merely in dilating the orifice of the wound, but in making any other incisions, which might be necessary for the purpose. The commonly received maxim, then, is only to attempt the removal of such foreign bodies at first, as can be extracted without producing too much irritation, and whose precise situation is known, and will admit of the operation with safety; for sometimes, when their place is known, they lie so deeply, that the operation for their removal would create more mischief than their continuance in the wound. It is certainly advantageous to remove foreign substances at first, if it can be done in accordance with the principles now laid down; because the operation is then not attended with so much pain as when inflammation has come on. However, all the best military surgeons coincide about the propriety of removing, in the first instance, only such foreign bodies as can be taken away without much pain and irritation, and if they deviate from this common maxim, it is only when the extraneous bodies are producing urgent symptoms by their pressure upon an important organ. Thus, when a ball is lodged between the dura mater and skull, it ought to be immediately removed, because its pressure upon the brain is a source of urgent danger. In removing a ball thus situated, you should not extract it through the long track it has taken, but first ascertain its precise situation by means of a probe, and then perforate the cranium directly over it with a trephine, as Baron Larrey did in several instances, recorded in his work on military surgery. As for foreign bodies deeply situated, if they are producing no urgent symptoms, they may be left till suppuration comes on; this will sometimes loosen them, and they may then come nearer to the surface. There are various instruments in use for taking balls out of wounds. The bullet forceps, which I now show you, gentlemen, is what is usually put into cases of instruments provided for the surgeons of the British army; but I think it would be more convenient if the blades were capable of being introduced separately into the wound, and then of being joined together, because their present construction will not always permit them to be opened in the wound sufficiently to grasp the ball.

Balls sometimes pass nearly through a limb, and lodge immediately under the skin of the opposite side. In such cases, John Hunter recommends us not to meddle with them in the first instance; but his opinion on this point is rather at variance with what is now generally regarded as the best practice; and I may say that the most experienced army surgeons prefer, in such a case, cutting down upon the ball, and taking it out. There is one example, about the treatment of which much diversity of opinion prevails, namely, when the ball is lodged in the head of a bone. Baron Larrey, who is one of the first military surgeons in Europe, recommends us not to meddle with it, when it is so placed, unless it be producing severe and dangerous effects. Others think, that you cannot remove it too soon, as it may produce disease of the bone, and extensive abscesses, followed by the formation of sinuses and fistulæ; or even may bring on necrosis, and a state of disease that may keep the patient for years in a condition fraught with continual suffering. A case is detailed by Sir Charles Bell, in his Surgical Reports, of a Russian general, who was struck by a musket-ball, that lodged in the external condyle of the femur; keeping up a state of severe suffering for four years, with repeated abscesses, and dangerous disturbance of the general health, so that he was at last compelled to submit to amputation, after many consultations had been held about the propriety of trying to extract the ball; but as there was an uncertainty about the possibility of removing it, and it would have been necessary to displace the popliteal nerve, the idea of such an attempt was relinquished.

When the ball is superficial, or when you know its precise situation, and you can take it out without producing a great deal of irritation, you should do so without delay; but there may be difficulties in the operation, as in Sir C. Bell's case, in which the ball had entered at the front of the femur, and lodged in the part of the external condyle, towards the ham; in fact, its precise situation was not known till the limb had been amputated and examined.

Were a ball lodged in the head of the humerus, you would not be justified, I think, in practising amputation; and if the symptoms were pressing, you might perhaps act with greater judgment in merely cutting down to the head of the bone, and removing it, provided you could not succeed in taking out the ball, with any splinters of bone present.

Gentlemen, with respect to the manner of dressing gun-shot wounds, it is found, that superficial dressings agree better with them than tight bandages, adhesive plaisters, and stimulating applications. I speak from experience, when I advise you to prefer superficial dressings, and to avoid pressure. You may apply simple pledgets and cover them with linen, wet with cold water, if the weather be warm, or the patient be not exposed to a low temperature. Then, certainly, emollient poultices and fomentations would be more advisable; perhaps, indeed, they are upon the whole the favourite applications for the generality of gun-shot wounds; but, on the field, they are, of course, out of the question. Here the wound should be dressed superficially; a handkerchief, or piece of linen, dipped in cold water, should be applied over the dressings,

and then a slack bandage put on. In the course of my professional life, I think, that I have clearly seen the most deplorable consequences arise from the application of tight bandages, and tight strips of adhesive plaster, to limbs injured by gun-shot: gangrenous mischief, and the loss of limb or life.

At one time, it was the practice to introduce tents into the wound, in order to keep its orifice from closing prematurely; but this practice is now renounced, gun-shot wounds having, in fact, little disposition to heal with this kind of apprehended rapidity, and being generally so circumstanced, that they must throw off a slough and suppurate, before the healing process can make any material advance. There cannot be, then, any ground for fearing that the wound will close too soon; and tents are highly objectionable, as causing considerable irritation.

In the suppurative stage, and also until the sloughs have been thrown off, poultices and fomentations are the most eligible applications; but their use may be preceded by cold applications, when the weather is mild, and the patient is not exposed to the rigours of a campaign in a cold country. In the first stage of a gun-shot wound, cold applications act beneficially in preventing inflammation, and in hindering the effusion of serum in the cellular tissue of the limb, always so liable to follow injuries of this description. However, you should particularly abstain from cold applications when the limb is below the natural temperature, as they would increase the risk of mortification.

In the early stage, when inflammation has come on, strict antiphlogistic treatment should be pursued, comprehending venesection and the free use of leeches, saline aperient medicines, with low diet, &c. In many cases, the boldest use of the lancet will be the principal means of saving life, as is exemplified in the treatment of many wounds of the head, chest, and abdomen. In all these cases, and in several others, when the inflammation is likely to prove dangerous, from its extent or violence, the lancet is our principal reliance,—it is our sheet-anchor; nor should it be employed merely in the beginning: but the rule is, to have recourse to it as often and as much as circumstances may require.

Gentlemen, I have already explained to you, that there is a certain period when gun-shot wounds are attended with risk of hæmorrhage; this period is from about the fifth to the tenth day from the receipt of the injury; and hence, when, from the probable course that the ball has taken, you have reason to apprehend bleeding, you ought to have every means in readiness for arresting it the moment it comes on. If the wound be in one of the limbs, a loose tourniquet should be put on, ready to be tightened the instant that the bleeding commences; and, above all things, the patient should be closely watched.

The rest of the treatment of gun-shot wounds is included under what has been said respecting the management of wounds in general. You should not take off the dressings too soon, and, when you are about to remove them, soften them with warm water; but, with respect to tight bandages, I believe that the sooner you take them off the better. In removing the dressings, avoid causing pain and irritation as much as you can; and, if they are very adherent, it is sometimes a good plan to take away only the outer and looser pieces of plaster, or lint, in the first instance, and leave the rest until it has been softened by the application of a warm poultice and fomentations.

In the stage of suppuration and sloughing, the treatment is the same as that usually applied to abscesses and mortification. When gun-shot wounds are complicated with hospital gangrene, you should regulate the treatment by principles, which I explained in considering that particular complaint. As for the treatment of fractured bones, with which gun-shot wounds are so frequently attended, it is a subject on which I need offer no remarks until we begin the consideration of fractures in general. Lastly, if tetanus come on, as a complication of gun-shot wounds, which sometimes happens, its treatment should accord to the advice, which I shall have soon to deliver respecting that severe and often fatal disorder.

Sometimes, when the bones have been much shattered, and there is profuse suppuration, the symptoms, instead of improving, go on from bad to worse; abscesses spread extensively, not only in the subcutaneous cellular texture, but also among the muscles, and under the fasciæ. As soon as one collection of matter is discharged another forms; fragments of bone keep up incessant irritation; while, not unfrequently, necrosis, or the death of a considerable portion of a bone, follows the severe mischief done to its medullary texture. Under these circumstances, the patient soon becomes affected with hectic symptoms, and you will no longer be able to persevere in the attempt to save the limb. The patient's pulse is from 130 to 160; he has no appetite; he cannot get any sleep; he becomes emaciated; has colliquative sweats or diarrhœa; and perhaps can retain little either of food or medicine in his stomach. Here you must amputate to save his life, and it might have been better had you done the operation directly after the first receipt of the injury, when the system was in a more favourable state to bear the requisite proceeding.

I may now remind you, gentlemen, that, when mortification follows a gun-shot wound, it is of that description which I described to you under the name of *traumatic gangrene;* a circumstance deserving your particular attention, because, in this species of mortification, you should not wait for the formation of the line of separation before you operate, since the mortification would generally extend and destroy the patient before such line of demarcation had established itself; and, if you

amputate at a proper distance from the gangrenous parts, the stump will be tolerably safe from any subsequent communication of mortification to it.

Gentlemen, the next kind of wounds, to which I shall direct your attention, consists of those called *poisoned wounds*. In this country, we do not see many wounds of this description, because the venomous animals amongst us are not numerous, and poisoned weapons are not employed by civilised nations. The principal instances of poisoned wounds, for which you may here be consulted, are bites or stings of insects, pricks or cuts received in dissection, the bites of adders, and those of certain rabid animals, especially the dog, cat, and fox. In France, and some other parts of the Continent, many accidents arise from the bites of rabid wolves. The stings of wasps, bees, and hornets, are not usually deemed of sufficient importance to demand the assistance of a surgeon. On their first occurrence, they cause a very sharp pain, followed by inflammation and swelling, which in a short time subside. The pain is not produced so much by the sting itself as by the venomous fluid which it introduces into the wound. Thus, Professor Duméril ascertained that if the poison cyst were removed from the common bee, its sting would occasion no pain nor inconvenience.

In particular constitutions, serious effects have been produced by the sting of a bee or wasp; and Dr. Gibson quotes the case of an elderly lady, who died in a quarter of an hour from the indisposition brought on by the sting of a wasp. The examples, in which the stings, inflicted by numerous bees or wasps, proved fatal in a very short time, are more common.

When the sting of a bee or wasp penetrates the eye, the inflammation is always of a peculiarly severe character. Fatal consequences may arise from a bee or wasp being inadvertently swallowed with beer or other liquor, into which it has fallen. Dr. Gibson mentions a young woman, who lost her life, a few years ago, from having swallowed a piece of honey-comb, in which there happened to be a bee. The fatal effects were suspected to arise from a sting of the œsophagus; but, as this unfortunate individual was not opened, it is difficult to say whether the state of the œsophagus, or that of the stomach, was the cause of death. If such a case were to occur again, a *post mortem* examination should be made. The bites of musquitoes sometimes produce rather severe effects. When I first landed at Malta, many years ago, my face was so briskly attacked every night by musquitoes, that, in a few days, my countenance was as much disfigured as it would have been by confluent small-pox. Instances are even recorded by Dr. Dorsey, in which the bites of musquitoes proved fatal. Spiders are generally supposed to be capable of imparting venom to their bites; and a large kind of spider, found near Naples,—the *tarantula*, has been alleged to inflict a bite, which may be followed by extraordinary derangement of the nervous and muscular systems, of which subject you will find some account in Good's Study of Medicine; but the reports about the terrific consequences of the bite of the tarantula, are now well known to be exaggerated.

From some statements, made by Moureau de Jonnés, it appears, that in one of the West India islands, I think Martinique, immense spiders are met with, which attack small birds and reptiles, and quickly destroy them, by means of the venom which they instil into the wound inflicted by their bite. The stings of scorpions are well known to produce troublesome effects, in consequence of a venom, which they insert in the wounded part. One species of scorpion in Africa, the *scorpio Afer*, is ten inches long, and much dreaded; its poison is contained in a reservoir near its tail, and exudes from two small orifices on each side of its tip. Maupertuis made several experiments for the purpose of ascertaining the effects of the virus of scorpions. He was a philosopher, who amused himself by keeping a collection of these animals, eight or ten of which at once he would suffer to attack a poor dog, or some other victim of his great desire to increase the store of human knowledge. Some of the dogs, it seems, were quickly destroyed; but others escaped with little inconvenience. The late Mr. Allan, of Edinburgh, the author of a System of Surgery, was a navy surgeon, and served in the years 1803 and 1804, on board the Diane, a French frigate, which had long been employed in the Mediterranean, escaped from the battle of the Nile, but was afterwards captured and commissioned in our service. While this ship remained at home, the scorpions, which had insinuated themselves into her crevices, remained so quiet that their presence was never suspected; but no sooner had the vessel reached a warm climate, than she was found to swarm with scorpions, and many of the sailors were stung by them. Mr. Allan had therefore a good opportunity of noticing the effects of such injuries; and in several instances violent inflammation ensued; the consequences were not fatal in a single example. I have already said, that the inconveniences of the stings of bees, or wasps, are rarely severe enough to require surgical assistance, unless the person should have been attacked by a swarm of bees. If you were called in to such a case, and there were much inflammation and swelling, you might apply a strong solution of common salt, the liquor ammoniæ acetatis, vinegar, camphorated spirit, or a solution of the acetate of lead; and if the inflammation were exceedingly violent, and rather extensive, you should employ leeches, purgative medicines, and even venesection. With regard to the stings of scorpions, it is the practice in Morocco, where these venomous insects abound, to scarify and cauterise the part, and then apply olive oil to it, with a ligature round the limb

above the wound, in order to prevent the progress of the poison into the circulation. Sir David Barry recommends the application of cupping glasses to poisoned wounds, with the same view; for when the atmospherical pressure is removed from the part, there is a suspension of the process of absorption; and, I think, it is of consequence to remember this principle in the treatment of all poisoned wounds.

With respect, gentlemen, to the bites of snakes, those of the viper, or common adder, are most dreaded in Europe. The poison of the viper is contained in capsules, situated at the roots of two moveable fangs in the upper jaw, and when the animal bites, the fangs assume a perpendicular position, and the poison flows through a tube in each fang into the wound. In this country the bite of these reptiles is seldom fatal to man; and it is well known, that generally the degree of danger is in proportion to the smallness of the animal bitten. A man will therefore rarely be killed by the bite; but it will sometimes destroy a child. It is more dangerous to an individual already weakened by disease, than to a strong healthy subject; and the poison is very active in the hot season of the year. The bite has also a powerful effect on a person whose circulation is hurried at the time, and when the bite is inflicted on a part not very remote from the heart. The nearer the bite is to the source of the circulation, the greater generally is the danger. The violence of the effects will also depend very materially upon the the quantity of venom that happens to be in the capsules at the time that the bite is inflicted, and upon the degree of activity in the poison itself at the same period; for it is a well ascertained fact, that the venom of all snakes is most virulent in the procreating season. These and other circumstances will account for the differences observed in the effects of the bite of the same species of venomous animal at different times, or in different persons. Sometimes even the bite of the rattlesnake will cause but little inconvenience; while, on other occasions, the result is a more or less rapid extinction of life.

The pernicious effects of the bite of a venomous animal often take place with remarkable quickness. In the case of the bite of a venomous serpent, a sensation of heat and burning pain is experienced in the part; and these symptoms are soon followed by swelling, great discoloration, and a copious effusion of serum in the cellular tissue. Indeed the pain, heat, discoloration, and œdematous swelling will sometimes extend to a very considerable distance from the bite, accompanied by all the usual characters of diffuse inflammation of the cellular membrane, a species of inflammation in many respects resembling phlegmonous erysipelas, as I explained to you on a former occasion. In proportion as this mischief increases, the constitutional symptoms become more and more severe; and almost as soon as inflammation commences, a remarkable prostration of strength and depression of spirits are observable; and sometimes an alarming syncope immediately follows the bite, or the patient may have a small, irregular, frequent pulse, difficulty of breathing, cold, clammy perspiration, confused vision, and seem as if he were under the influence of intoxication. There may also be vertigo and vomiting of bilious matter, with a yellow tinge of the complexion, and severe pain about the navel. Such is the general nature of the local and constitutional effects of the bites of venomous snakes. When the case ends fatally, you will see on dissection the cellular tissue around the bitten part in a gangrenous state.

Gentlemen, you will find in one of the volumes of the Philosophical Transactions a paper on the bites of venomous snakes, by the late Sir Everard Home; those of the black spotted snake of St. Lucia, the cobra da capello of the East Indies, and the rattle-snake of America being adverted to. The effects of these bites are sometimes so great as to produce death almost immediately; and the body may then present no morbid appearances, except those in the cellular membrane, which is completely destroyed in the neighbourhood of the injury. When the poison is less intense, it does not destroy the person in this rapid way, but produces something like drunkenness, followed by an uncommon depression of the whole system, and, perhaps, in about a quarter of an hour, by a considerable degree of swelling, with serous effusion in the cellular membrane, the skin of the part becoming remarkably cold. In fact, there is an unusual disposition to coldness all over the body.

In the *treatment of poisoned wounds*, there are two principal indications; the first is *to endeavour to prevent the entrance of the poison into the system;* and the second is, *to endeavour to prevent the poison, if it should enter the constitution, from having those violent and fatal effects, which, if its virulence be not counteracted, would be the consequence.* The treatment therefore necessarily comprises both local and general measures. For the fulfilment of the first indication, namely, the prevention of the entrance of the poison into the system, the following are some of the principal plans: first, the extraction of the poison by means of cupping-glasses; secondly, its destruction with caustic, or removal by excision of the part. The objections to this latter method are, that the bite of an adder does not often lead to consequences severe enough to justify the practice; and unless the excision go beyond the depth to which the fangs have penetrated, it may do harm by exposing the orifice of the blood-vessels to atmospheric pressure, and thus promoting the conveyance of the poison, along with the blood, into the circulation. Sir David Barry's experiments appear to confirm this view of the subject. Thirdly, you may apply a ligature, or tourniquet, round the limb, with the view of rendering it more difficult for the absorbents to

convey the poison into the circulation. Care should be taken, however, that the circular pressure on the limb may not be so great as entirely to stop the circulation. Suction of poisoned wounds is a very ancient practice: besides its operation in extracting more or less of the venomous matter from the part, it is useful, when kept up without remission, on other principles, explained by Sir David Barry, who prefers for the purpose the application of cupping-glasses. He caused several dogs and rabbits to be bitten by vipers. To the bites of some of those animals he applied cupping-glasses, but to the bites of the rest he did nothing at all. Now, although such of the bitten animals as were left to themselves recovered ultimately, yet they became severely indisposed, while no inconvenience at all was manifested in the others, on which the suction was kept up by means of the cupping-glass. Sir David Barry is not partial to scarifications; and thinks the use of a ligature, or tourniquet, a better practice, if the pressure be not such as totally to stop the circulation in the limb. This proceeding, washing the part, and keeping it from the air, he considers all that is necessary previously to the application of the cupping-glass, and this only when the cupping-glass cannot be immediately procured. While the cupping-glass is acting, the fluids in the vessels of the part either take a retrograde course, or become stagnant, and absorption ceases. Thus, by allowing the cupping-glass to remain for some time on the part, and by employing excision afterwards, you take the best chance of preventing some of the poison from entering the system, and of removing the rest. After the excision, you may, if you please, repeat the application of the cupping-glass. Some of the practices which I have described, however, would only be right if the wound had been inflicted by a serpent of a more formidable kind than the common adder of this country; for the bite of this reptile has not usually consequences severe enough to call for the excision of the part, or its destruction with caustic. Ablution, and the use of the cupping-glass are, I think, liable to no objections. Gentlemen, I will finish the subject of poisoned wounds in the next lecture.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832-33.

LECTURE XIX.

Pneumonia—Value of Auscultation—Phlegmasia Dolens—Blindness—Pneumothorax.

We have to-day, gentlemen, a case of very interesting pneumonic disease, to which I would direct your attention. It is a case of very complicated lesion of the lung, occurring in a man of the name of Michael Irwin, but what renders it most remarkable is, that notwithstanding the extensive and complex nature of the ravages committed by disease, all its symptoms have been described with perfect accuracy by Dr. Houghton, in the number of the Dublin Medical Journal for last July, six months before the patient's decease. We had on yesterday an opportunity of verifying Dr. Houghton's statements, and I must say that his stethoscopic knowledge does him infinite credit, and furnishes the advocates of the stethoscope with an additional proof of its value and utility.

There are not less than five or six morbid alterations of the lungs and their appendages, and all these, observed on the dissection of the patient on the 24th of January, 1833, have been described in a paper published in the beginning of July, 1832, and give a remarkable proof of the certainty of diagnosis by the stethoscope. Who is there that would, fifteen years ago, venture to give a precise description of the organic lesions of an obscure pulmonary complaint? Yet here we have this accomplished, and all the morbid changes detected, with that accuracy and attention for which Dr. Houghton was remarkable while a pupil in this hospital. I beg that whenever you hear any person decrying the stethoscope, you will give the particulars of this case as a sufficient refutation of his groundless attacks.

Such of you as have read the number of the Journal alluded to, will recollect the detail given at that time of the symptoms, the affection of the left pleura; the presence therein of air and pus; the compressed state of the corresponding lung; the existence of tubercular cavities and fistulous passages in its substance communicating with the pleura, and the tuberculated state of the right lung. All these, and the stethoscopic signs so accurately given, have been accounted for by the phenomena observed on dissection. We find the left side of the chest measuring an inch or an inch and a quarter less than the right. "The left pleura contained a little air, which escaped on its being opened, and about two pints of pus. On forcing a quantity of air into the lung by means of a bellows, the pipe of which was introduced into the trachea, it escaped in bubbles through the fluid contained in the cavity of the pleura. The costal pleura was remarkably thickened, cartilaginous and flocculent on its internal surface; the pleura pulmonalis had a similar appearance. The lung was compressed laterally from top to bottom, and adhered posteriorly to the distance of about two inches from the spine, and also towards its summit. At the upper part, the lungs contained several large tubercular cavities; lower down, and corresponding to the angle of the scapula, there were two fistulous openings about an inch apart. Anteriorly, about the commencement of the cartilage of the third or fourth rib, there was another, much larger than the

former opening. The right lung was filled with tubercles. The heart lay in the mesial line, a little to the right of its natural situation; it was rather large, and both of its ventricles were dilated, particularly the right. The liver had an old cicatrix on its surface, extending inwards; it was whiter than usual. There were a few ulcerations in the ileum, and very extensive ones in the cæcum." Here you have an instance of extensive disease arising from tubercular development and scrofulous inflammation of the left lung, in consequence of which cavities filled with pus are formed in its substance, these are followed by the formation of fistulæ, which opening into the pleura produce a violent degree of inflammation, and convert the pleura into the enormously thickened mass you here see. If you were to dissect this pleura with care, you would satisfy yourselves that the increase of thickness is owing to the successive depositions of coagulable lymph on its surface. Serous membranes, when inflamed, throw out in succession thin coats of lymph over their surface to a greater or less extent, and these, like one sheet of paper pasted over another, become, each in its turn, firmly consolidated with the parent membrane. It seldom happens that we have any considerable increase in thickness from interstitial deposition, nor do I believe that it ever exceeds a line. Now we have here a very remarkable state of the pleura, and in addition, this air and pus contained within its cavity, with which we find three fistulous openings communicating, and these in all probability are connected with three cavities in the lung, each of which communicates with the bronchial tubes. I do not wish to open the lung in the absence of Dr. Houghton, as it is, perhaps, his intention to make a preparation of it, and will content myself for the present with some few observations on the phenomena of the disease before us.

It is not my intention to give a lecture on pneumothorax; I have done this before at Sir P. Dun's hospital, and do not wish to enter on the subject a second time; we rarely have the courage to say the same thing over again. There are, however, some peculiarities connected with this man's complaint which it will be necessary to notice briefly.

With respect to this case, it is an example of the disease called *pneumothorax*. By pneumothorax is meant, air in the cavity of the chest, where, of course, it should not exist. You may say, perhaps, that there is always air in the cavity of the chest; but by the cavity of the chest, here, we mean the cavity of the pleural bag. I would not have detained you in speaking of the name of this affection, had it not been observed by Dr. Elliotson in his lectures, that this name has been given to it without a proper consideration of the rules of combining Greek words, and that the proper way of writing it would be pneumato-thorax. I would, nevertheless, adhere to the old mode of writing this word. We leave out the letter T for the sake of euphony, and thus render the word more musical; besides, this term has been consecrated by its illustrious inventor Laennec.

One of the most remarkable circumstances in the present case, is the length of time between the development of the disease and the death of the patient. He had symptoms of pneumothorax in July 1831, and died in Jan. 1831, having lived a year and a half after he had been attacked. Again, at three different periods, namely, July 1831, Dec. 2d, 1831, and Sept. 26th, 1832, he had distinct and severe attacks of feverishness and pain, showing that at each of these periods some new lesion was going on in the lung, and this, as was subsequently ascertained, the formation of fistulous openings. The first was in July, from which he recovered, and this continued until December, when a fresh opening formed, accompanied by a new train of symptoms. On the 26th of September another formed; and it is a remarkable fact, that all the phenomena connected with these separate openings have been distinctly described by Dr. Houghton. There cannot be the slightest doubt that each of the days designated by him were those days on which fresh communications were established between the abscesses in the lung and the pleural sac. On examining the shape of the lung, you find it compressed from before backwards, so as to form a thin plate lying up against the mediastinum, the pleura and its contents occupying the arch of the chest. This accounts for the dullness of the sound posteriorly, between the angles of the ribs and spinal column, where the thick and carnified portion of the lung lay. The existence of the fistulous openings corresponding to the angle of the left clavicle, which communicated with the abscesses, and through them with the bronchial tubes, will explain the occurrence of bronchial respiration in this situation, for here we could detect the sound of the air rushing through the larger bronchi. It is over the place of these openings, also, that the metallic tinkling was most remarkable during life, and opposite the anterior one the *bourdonnement amphorique* was occasionally heard.

There is another circumstance worthy of notice. This man, by no means in the first stage of consumption, lived eighteen months after the occurrence of fistulous openings into the cavity of the pleura. Would it not appear that such a termination to scrofulous ulceration tends to prolong life. I will not attempt to explain this; it is probable that the inflammation and suppuration within the pleural sac acted as a derivative, and that the prolongation of life was owing to the scrofulous development being arrested in its progress by pneumothorax. Again; after such extensive lesions of the lung and its investment, we find that this man was able to work as a mason for twelve hours a-day, at the Chapel of All-Hallows. This is an important and remark-

able fact. Another thing is the marked improvement which followed a good and well-regulated diet. Dr. Houghton observes, that when this man's diet agreed with the stomach and was nutritious and good, he experienced a decided amelioration in his health. You perceive this justifies a position I have advanced on a former occasion, that scrofulous inflammation is not to be combated with low regimen and a poor diet, but that good wholesome food, and every thing that tends to invigorate the system, combined with powerful derivatives, are the best means we possess in checking the progress of consumption. This case also furnished a remarkable example of pervigilium: the poor fellow stated, that he has been twenty-five successive nights without sleep. I mention this, because it has evinced the signal benefit derived from a combination of narcotics. By the use of prussic acid and hyoscyamus he was enabled to enjoy several hours' repose. I will not make any further observations on this case, except to pay a just tribute to the extraordinary patience displayed by this man during his protracted sufferings, and to state that the *post mortem* examination was made at his own particular request, one of the greatest proofs of looking on death with philosophic equanimity, and a rare instance of enlightenment amidst the general prejudice of persons of his class in life.

I come now to a case of phlegmasia dolens, occurring, after parturition, in a woman named Hagerty, which has proved fatal. I never had any hopes of this woman's recovery, because, in addition to the phlegmasia dolens, she had fever and inflammation of the mucous membrane of the intestinal canal and lungs. She laboured under fever, vomiting, and irritability of the stomach; she had a severe diarrhœa, tympanitis, and a swollen state of the abdomen, with turgescence of the veins on its surface, so as to bear some resemblance to dropsy. She had a constant harassing bronchitic cough; in fact, a combination of unfavourable symptoms, which rendered her case hopeless; and in spite of all the usual remedies, stupes, leeching, blisters, &c, she grew progressively worse, and sank under her complicated load of disease. I shall not detain you by a detail of her case, and a recapitulation of the therapeutic agents employed in endeavouring to arrest her complaint, but shall proceed to make some observations with respect to the phenomena observed by Mr. Hudson on dissection. "On opening the thorax, there was no serum discovered in the pleural cavities, but there was a considerable quantity in the pericardium. The left pleura was adherent at all points. The lungs were healthy, with the exception of some œdema posteriorly; the bronchi contained a quantity of sanguinolent frothy fluid, but in other respects presented a natural appearance. The right side of the heart contained fibrine, the left some coagulated blood; the valves were healthy. The stomach and intestines presented no sanguineous engorgement, and were apparently free from disease; the liver was large and much congested; the spleen large, soft, and almost pulpy; the kidneys pale, with patches of white degeneration. The uterus exhibited nothing remarkable, except the loaded state of the spermatic veins, which were very large and tortuous; the veins of the mesentery were also congested. The væna cava inferior was healthy down as far as its juncture with the renal vein, below which it was thickened, and filled with a fibrinous substance, varying in its consistence, and adhering to the inner coat of the vessel. On laying bare the femoral vein, the subcutaneous cellular tissue was found to be infiltrated with serum, the granules of fat much firmer and more distinct than natural, and the intervening cellular membrane thickened and opaque. The superficial fascia was dense, white, and of a flaky appearance, the lymphatic glands in the groin were large, full of serum, and closely matted together by condensed cellular tissue. It was extremely difficult to detach the iliac, femoral, and saphena veins, in consequence of their strong adhesions to their sheaths and the surrounding organised lymph, in which they were imbedded. These, together with the popliteal vein, were similar in condition to the inferior cava, except that the substance they contained was thinner, of a brown colour, and somewhat purulent appearance. In the remainder of the saphena, and in the veins near the foot, there was a plug of coagulum, they were otherwise healthy. The iliac and femoral arteries contained a small quantity of blood; the other arteries were empty." You perceive, gentlemen, that all these last-mentioned parts, so accurately detailed by Mr. Hudson, presented, each in succession, marks of inflammation. The subcutaneous cellular membrane is infiltrated, the granules of fat altered, the cells in which they are deposited increased in size, the superficial fascia dense, white, and of a flaky appearance, all indicative of the existence of inflammation. It is found extremely difficult to detach the femoral and saphena veins from their sheath, or from the firm organised lymph in which they lay. As the result of long-continued inflammation, a large quantity of lymph is poured out along the track of the vessels, and this mats them together in such a manner as to present considerable obstruction to their detachment. The veins and lymphatic glands also exhibit distinct proofs of inflammatory action. Why do I make this recapitulation? Because I think it is necessary to impress upon your minds the fact that all those tissues, and not merely the veins or lymphatics, are engaged in phlegmasia dolens. Was there any part spared? Did the cellular tissue, or the fat, or the external surface of the veins escape? No—all were enveloped in the same inflammatory mischief. I think you cannot have a better proof than this, that the phenomena of phlegmasia dolens do not depend on inflammation of either veins or lym-

phatics. In confirmation of this opinion, I may observe, that I lately saw a case, in which both saphenas became inflamed and obliterated, in consequence of a cutaneous eruption, and yet the gentleman had no accompanying phlegmasia dolens.

Let us pass over this subject and come to the eye. What is the state of the eye in this woman? She awoke on the morning of the 24th of January with intense pain in the eye-ball, and complete blindness of the affected eye, being unable to distinguish light from darkness. On examination, there was immense serous chemosis discovered, so great in fact as almost to conceal the cornea, which appeared, as it were, sunk and buried in it. This chemosis was so exquisitely tender, that she could not bear the eye-lids to be touched. Nevertheless, it presented a character totally distinct from any other species of acute chemosis we are acquainted with, its colour being almost *white*. The exceedingly small portion of cornea which was visible appeared to be opaque. Her symptoms continued with undiminished intensity up to the period of her decease. On examining the eye after death, the cornea was found to be perfectly transparent, and the chemosis to have nearly disappeared. The iris had lost its natural grey colour and become nearly white, and its surface was covered with long flakes of lymph, both anteriorly and posteriorly. The aqueous humour was turbid, and had portions of curdy lymph floating in it. The crystalline lens was opaque and of a light brownish tint. The vitreous humour was of a dull yellowish colour, and had its consistence altered, for, on opening it, the fluid which dropped out was thick and ropy. On this case Mr. Hamilton has made the following remarks:—"The only disease in which the sight is instantly destroyed is amaurosis, of which some instances are on record; but it would be impossible to look on this as a case of amaurosis, where the eye exhibited so many simultaneous organic lesions. The chemosis in this case differs very much from that which accompanies any of the varieties of ophthalmia, or conjunctivitis; in the former it was white, in all the latter it is red, of various degrees of intensity. There is a great difference in the manner in which sight is destroyed by any of the forms of ophthalmia, and that which has characterised this affection; in the common forms we have destruction slowly accomplished by ulceration and sloughing of the cornea, hypopium, adhesions and prolapsus of the iris, &c. Neither does it resemble rheumatic or gouty inflammation of the iris; for in these instances sight is not annihilated at once, and there is a degree of redness, arising from a particular arrangement of the sclerotic vessels. The colour which the iris presented is also peculiar to this disease. In common iritis the colour never becomes so white, nor is it ever covered by the same kind of flaky lymph; the lymph that is effused being a more homogeneous fluid which either forms a thin layer in front of the lens, giving it a hazy appearance, or contracting adhesions so as to change the form of the pupil, or existing in the shape of globules on the surface of the iris, or gravitating towards the bottom to constitute hypopium. None of the writers on diseases of the eye whom I have consulted describe any such appearance; nor have I witnessed any thing similar among the numerous cases of syphilitic and idiopathic iritis which are treated at this hospital. I think there can be little doubt of its being a disease sui generis, differing from other diseases of the eye, not only in its leading features but in all its particular symptoms."

Such is the interesting detail of this remarkable case given by Mr. Hamilton. The woman awakes suddenly from sleep one morning during the progress of her complaint, feels an intense pain in the eye-ball, and finds her sight completely gone. This is a very remarkable circumstance. Again, you have the cellular tissue of the conjunctiva attacked by a rapid inflammation of precisely the same character as that which we noticed to prevail so extensively in a similar tissue in the lower extremity. The principal part of the exhalation which results from this inflammation is deposited in the subconjunctival cellular membrane, forming an enormous protuberance which nearly shuts out the cornea from view, exquisitely tender to the touch, but white and exsanguineous in its colour. I do not hesitate to affirm that in this new species of affection we have witnessed a case of phlegmasia dolens affecting the eye, perfectly identical in all its characters, and differing in no single material point from the inflammation which attacked the lower extremity. In the leg we have various tissues engaged in the inflammatory process, the skin, cellular tissue, adipose substance, fascia, arteries, veins, and lymphatics; in the eye we have the conjunctiva, iris, aqueous and vitreous humours and crystalline lens involved in one common mischief. Their identity is farther corroborated by the nature of the pain common to both, the sudden appearance of the disease, the exquisite tenderness of the eye, and from the fact that there is no other species of disease on record with which we could class this novel disease. It is a form of disease hitherto unknown, and I believe we may claim the honour of having first described it. It was not iritis, nor ophthalmia, nor amaurosis. In iritis there is pain in the forehead, sight is not instantaneously destroyed, the conjunctiva is red and very seldom exhibits much turgescence; but here, vision is annihilated as if by a flash of lightning, there is a wall formed round the cornea which hides it from our view, but its hue is pale and bloodless. There is not a single feature in it by which the most anxious and critical inquirer could trace any resemblance between it and amaurosis, except the single and unsupported circumstance of sudden bereavement of vision. It is unnecessary for

me to contrast it with any kind of ophthalmia, as their phenomena, progress, and termination are so essentially dissimilar. All that we have seen of it authorises us to conclude that *we have witnessed a disease hitherto unknown and undescribed, phlegmasia dolens of the eye.*

I had intended to call your attention to a case of pleurisy, in which an operation would appear necessary, from the strong evidence we possess of the existence of fluid in the cavity of the pleura. I find, however, my time has expired; and I believe the usual space of an hour is always sufficiently long to inflict upon the class; as may seem worthy of your notice from their bearing subjects of interesting inquiry or practical utility.

CLINICAL LECTURES

BY G. J. GUTHRIE, ESQ., F.R.S., &c.

Delivered, at the Westminster Hospital, Saturday, April 13th, 1833,

ON THE ANATOMY AND DISEASES OF THE BLADDER AND URETHRA.

Gentlemen,—Pursuant to the promise I made to you some time ago, in the lecture I gave on the removal of calculi from the urethra, I resume the subject of the diseases of the urinary organs, and I shall do so with especial reference to the cases and examinations which have been made in this hospital during the the winter. The several cases which have come under my care, have been treated by different methods, and you have had opportunities of seeing their effects, and of estimating their value. On some occasions you have not observed the precept I have recommended to your attention, of keeping your ears and eyes open, and your mouths shut, whilst in the wards, but have made observations before the patients, which have excited their suspicions, and caused two of them to take their departure. What may appear to some of you to be a matter of doubt or of experiment, may be to your teacher one of certainty and of precision. I make a point of saying as little as possible before patients as to the nature of their complaints or the probability of cure, unless the opinion is a favourable one. The ladies say, I am told, however paradoxical it may appear, that curtain lectures should never be given in bed, and I am quite sure, that clinical lectures should never be given within hearing of beds, bed-posts, or patients. It may be usual with foreigners to state all the symptoms under which an unhappy wretch is labouring before his face, to describe all the fatal effects, and then terminate their discourse by a sentence of death, more or less energetically pronounced. But in this country, poor persons in hospitals should be treated with as much kindness and sympathy as richer ones at their own homes: and although it is absolutely necessary that their complaints should be seen and enquired into by and before the students, who can have no other way of acquiring knowledge, it is not necessary that their feelings should be injured by professional remarks, which can be as easily and more satisfactorily delivered in another place. I am one of those persons who follow, as far as my limited capability will permit, a very simple rule, that of doing as I would be done by. I hope, gentlemen, you know where to find that precept, and I trust you will always have it present in your recollections, and if you have you will never make many clinical remarks before your patients, but reserve them for a proper place, where they cannot hear them, and where they will be better attended to.

The structure and functions of the bladder and urethra in the male, and of the parts connected with them, are of a very complicated nature, and notwithstanding the attention which has been bestowed upon them by many of the ablest anatomists of this and of other countries, there yet remain many points not thoroughly understood, and which are open for investigation. There are, indeed, few parts of the body which do not deserve a renewed and attentive examination, and whenever that has been given, I do not believe there has been an instance in which the labour of the enquirer has not been duly rewarded.

The continual calls on the bladder, from the commencement to the termination of life, under circumstances which are frequently foreign to the natural state of man; and the double function which the urethra has to perform, during a long period of what is often an artificial mode of living, tend constantly to their derangement; and whilst, like every other part of the body, they contain within them the seeds of their dissolution, which would sooner or later develope themselves in the ordinary course of nature, they are often caused to germinate at a much earlier period, by the irregularities and vicious propensities of man himself.

The diseases to which these parts are liable would be few until the middle period of life was passed, if it were not for the indulgences and irregularities, which usually prevail in a highly civilised community, and more commonly give rise to them. They are not, however, the less sensibly felt, because they are sometimes merited; they are always, when severe, the source of great anxiety of mind and distress of body, gradually leading to premature decay, and terminating not unfrequently in a protracted and painful dissolution, for which the powers of science or of art avail but little. At an earlier period, surgery can often afford great and important relief, it can as often prevent further mischief as it can cure that which exists, and is a source of no less satisfaction to the surgeon than it is of delight and of happiness to the patient. I know of no diseases for the cure of which the gratitude of one man to another is more often and more cordially expressed.

The views I have taken of the anatomy and relative situation of some of the parts concerned

in these complaints, differ occasionally from those which are generally entertained, and lead sometimes to different conclusions, both as to the seat and nature of the disease which affects them, and the proceedings to be adopted for their relief. I shall, therefore, as we proceed, demonstrate these points both from preparations and the recent state, so as to bring each part in immediate connexion with the subject it is intended to illustrate.

The shape of the bladder has been differently described by authors, according as it has appeared to them, under various circumstances, of age, sex, and of disease; whether it be oval, rounded, flattened, or acuminated, it matters not: there are, however, in all certain points of resemblance and of importance, which require attention. In the healthy state, the bladder is capable of great extension and of a corresponding contraction; it has, therefore, at first sight, a structure apparently membranous, but, on more minute investigation, this is easily divided into several layers, connected by cellular tissue. The external or partial covering of the bladder is derived from the peritoneum; if this be removed, the external muscular coat is exposed, the fibres of which run in a longitudinal direction, admitting readily of separation one from the other, as the bladder is dilated laterally, and from the internal muscular layer beneath it, from which it may be easily reflected in many places. The fibres of the internal muscular layer run more in a spiral, oval, and transverse direction, they are best seen from the inside of the bladder, when it happens to be thickened they project into the cavity, forming, as in the preparation before you, strong bands or cords, covered by the mucous membrane, or lining of the bladder, which is of a pale straw colour, and offering nothing remarkable in its appearance. When the bladder is moderately distended in situ, the part which rises up into the abdomen, and which is sometimes of a pyramidal shape, is called its summit, the anterior and posterior parts are more or less flat, the sides or edges are rounded, whilst the lowest part, which is deeper, rounder, and broader than any other, is called its base, the *bas fond* of the French anatomists. The opening or meatus, through which the urine passes, is the commencement of the neck of the bladder; it is situated at the lower portion of the anterior part, and opens internally, almost abruptly, or with a very little depression, but in no way resembling the funnel-like process to be observed in animals. If the bladder be now opened, or cut across transversely, this part will be seen sometimes resembling a perpendicular slit, at others being more rounded. Below and behind this opening, there is a space of a triangular form, evidently whiter and of a more condensed and elastic structure than any other part; the apex of this triangular spot, *trigone* of the French, is formed by a slight projection at the very opening of the bladder, called its uvula, or *luette,* whilst the base of the triangle is marked by a strong whitish-coloured band, which passes transversely across from side to side. The ureters open within the two extremities of this band, and from these two another more prominent line or band descends, inclining inwards, so as to meet like the letter Y, the point being inserted into and behind the uvula. The width of the base is about an inch and a quarter from the opening of one ureter to that of the other; and there is about the same distance from the apex of the triangle to the base. The ureters descending from the kidneys enter the back part of the bladder obliquely, first passing between the longitudinal layer of fibres and the spiral ones, and then obliquely through them also, to open near the extremities of the base of the triangle above described. The orifices of the ureters are surrounded by the peculiar condensed and elastic substance which lies beneath the mucous lining of the bladder, and between it and the muscular coats. This superadded structure begins then at the base of the triangle, inclines inwards as it advances towards the neck of the bladder, forms in a great measure the orifice, appears to be continuous in the passage inwards, and to constitute the elastic membrane of the urethra. This triangular space of the bladder being elastic, yields to any reasonable extending force to a certain extent, from which point it returns to its original situation, on the removal of the extending power. The orifice of the ureter is small, and is only enlarged with great difficulty, and after much suffering during life, on account of the comparatively unyielding nature of the substance in which it is situated. If the ureter itself be much enlarged by long continued pressure and retention of urine in it, the orifice still remains of its usual size. This is shown in the preparation I place before you, in which one of the ureters is much dilated; but if a stone descends from the kidney, the greater solidity of it when impelled from behind by the urine enables it to pass through by dilating the orifice of the ureter for the time, but then only with much suffering. If the stone is large it sometimes sticks in the orifice and cannot pass through, giving rise to continued inconvenience, and to the symptoms of stone in the bladder from sympathy. This is exemplified by a preparation in the museum of the Royal College of Surgeons. The patient, a gentleman, consulted several surgeons of eminence, was sounded, the stone was detected, the operation was declared to be necessary, but was deferred for two or three weeks, until he should improve a little in health. This however he did not do, but, on the contrary, gradually got worse and died. On examination the stone was found sticking in the orifice of the left ureter, as I have described it. If an operation had been done, the stone would probably not have been extracted, its situation might not even have been detected; and it shows the propriety and necessity of not only being able

to feel a stone *distinctly*, but also to be able to move it *distinctly* with the sound before an operation is resorted to.

The linear bands, descending from the ureter on each side, are composed of a substance partly muscular, partly elastic. They have been called the muscles of the ureters, and are described as inserted, fleshy and tendinous, into the prostate gland. They appear to me to be inserted fibrous into and behind the uvula, but the fibres of the bladder generally vary much with regard to the manner in which they pass over or are inserted into the prostate; and I have no doubt that some fibres may pass into the posterior edge of the gland, as has been stated by Sir C. Bell. I have asked him to show me a preparation in which this formation is demonstrated, and he has promised to do so. I shall then have another made for your information. It is presumed that the ureters have no valves at their orifices to prevent the reflux of urine into them after it has passed into the bladder, that they enter obliquely to answer this purpose, and that the coats of the distended bladder, pressing on them in their oblique passage, prevents this reflux from taking place. It appears to me that this mechanism is for the very reverse object; and that the ureter opens on the peculiar condensed structure, in order that the orifice may be constantly patulous; and the obliquity of the passage through the coats is for the purpose of giving facility to its being pressed upon by the muscular coats of the bladder, when the viscus is in a distended state, and in order to delay if not to prevent the further flow of urine into it. When the bladder is contracted and empty, the urine passes readily into and gradually dilates it, until the desire for expulsion comes on and leads to its evacuation; but a little more or a little less seems to have no influence in preventing the urine from finding its way in, the weight of urine descending from the kidney readily overbalancing to a certain point the resisting power of the coats of the bladder. When the bladder is, however, distended, its coats no longer yield easily, the ureter is pressed upon by the muscular wall in its passage through it, and the further entrance of urine is, in a great measure, prevented. If this process be long continued, the ureter above this part dilates from the size of a crow's quill to that of a man's thumb, and even larger; the pelvis of the kidneys also dilates, the secretory organs are pressed upon, and partially removed, so that the kidney may become almost an empty bag, separated by partitions, indicating only the former existence of its lobes. A total suppression of the secretion may, under these circumstances, take place at any time. The most remarkable example of the kind which has come under my observation occurred in the case of a lady, who suffered from a cancer of the uterus; the disease after a time extended towards the ureters, which at last were embraced and pressed upon by it as they entered the bladder. The lady, as this took place, began to suffer more than commonly from derangement in her urinary apparatus; the bladder was found ultimately, on passing the catheter, to contain little or no water; she fell into a state of low fever, became paralytic, afterwards comatose, and died. On examination the ureters were found impervious at the part where they were grasped by the diseased structure; above this they were greatly enlarged; the kidneys were also dilated; and she had died paralytic and apoplectic, as all persons do in whom the suppression of the secretion is complete. The same thing takes place, as I shall hereafter show, in most cases of chronic disease of the bladder; and it is a provision of nature for which this mechanism is intended, to prevent the too rapid flow of urine into the bladder, rather than to prevent a distension of the ureters, which could not, I believe, occur in this way, for some part of the bladder or urethra would yield by rupture or ulceration before the pressure on the secreting cryptæ of the kidney would be so great as to put a stop to their office, or to dilate the ureters. Nature can accommodate herself for several days, and, in some instances, for weeks, to a complete suppression of the secretion of urine; and for a very long time to a partial secretion of it. If the natural quantity usually secreted varies from two to two pints and a half in the twenty-four hours, and an obstruction takes place, preventing its evacuation, the bladder will be considerably distended; but the same quantity will not be secreted during the second twenty-four hours, and still less during the third; when relief must be obtained by surgical means, if it does not occur otherwise, or great mischief will ensue. The provision of nature is, therefore, as far as possible, to protect the bladder and urethra, rather than the constitution of the patient, the bladder and urethra being more susceptible of mischief than the system at large. I am more disposed to believe that the two bands on the triangular space, called the muscles of the ureters, are better fitted for keeping the part fixed, and for strengthening and raising it up when necessary, than for keeping open, and in a straight line, the channel of the ureters, which hardly stand in need of such particular apparatus to effect this object. In several of these preparations now before you of diseased bladders, these bands are large and well marked, but not out of proportion.

The triangular space is very vascular, compared with other parts of the bladder; it is highly sensible, the nerves being directed to, and communicating more particularly on it, as they descend from each side from the inferior mesenteric and the hypogastric plexus, and from the third and fourth sacral nerves. It is therefore very excitable, and, when irritated, gives rise to the desire to evacuate the bladder, as well as sometimes to very great pain, as all have experienced who have suffered from stone in this viscus. The idea

entertained by some, that a bougle touches this part on entering the bladder, and in this manner gives rise to the desire which is usually experienced to pass the urine, is certainly erroneous; for when a healthy bladder contains a moderate quantity of fluid, a bougie will only touch the very apex of this space, on its entrance into the bladder; and observation has led me to believe, that this desire takes place when the instrument has entered that part of the urethra which is surrounded by the prostate, and previously, therefore, to its entrance into the bladder. As the same nerves supply this part, it is deserving remark, inasmuch as it is as well to be correct. In the healthy state of the bladder, the viscus, when moderately distended, enlarges considerably downwards towards the rectum, and the triangular space descends, rendering it impossible for a bougie to touch more than the apex of the triangle, unless it be curved at the extremity. This descent of the triangular space can scarcely, however, take place, except when the bladder is in a healthy state; for when it becomes much thickened it loses its capability for dilatation, and it contains too small a quantity of water to render this a descending or protruding part. This triangular space rests on the rectum, and the bladder is punctured through it, when that operation is done; but which I may say, by the way, I object to, believing that it ought to be superseded, in almost every case, by another, which I shall in due time bring before you. The operation of puncturing the bladder through the rectum was founded on the supposed anatomical fact, that the triangular space rested on, and closely adhered to, the rectum, so that the urine would flow direct from one into the other without escaping into the neighbouring structures; but it has been shown, that the peritoneum, instead of passing down behind the bladder, and between it and the rectum, to the base of the triangular space, and there terminating in a cul de sac, does sometimes pass on further, between the triangular space and the rectum, and even, occasionally, up to the prostate gland; so that by puncturing through the rectum the general cavity of the peritoneum is opened before the bladder is penetrated, and the patient, in such case, must be lost, from the urine finding its way into the peritoneal cavity, and giving rise to an inflammation which has always been destructive whenever this kind of effusion has taken place, and from whatever cause. I am not aware of there being any signs by which this conformation can or cannot be distinguished, and consequently, if that opinion be correct, the safety of the patient depends not on the the knowledge and ability of the surgeon, but on an accidental formtion of the part on which the operation is performed. The corresponding portion of the bladder, on its anterior part, is in a similar manner devoid of peritoneum, and has been made the subject of puncture above the pubes. This operation I also object to in almost every case, as being either unnecessary, in most instances in which it is done, or as not being to be preferred when an operation is absolutely required to give the necessary relief. Both these points we shall discuss in their proper places, and I shall then bring before you, in a more particular manner, the relative anatomy of the parts more especially concerned; for although a teacher of anatomy ought to go through his subject connectedly, it is my belief, that a teacher of surgery should always demonstrate the anatomy of that part only, and, as it were, renew your acquaintance with it, about which he is endeavouring to impress on you the proper principles under which you should act in disease.

Behind the base of the triangular space the coats of the bladder are usually thin, although the transverse bands of muscular fibres are more strongly marked, passing across like strong distinct cords, and sometimes running in an oval direction. This greater thinness of the coats at this part, and the direction of the fibres, often admit of a hollow being formed, in which a stone often lies, and may remain sometimes undiscovered. In the bladder I now show you, and in which this hollow is well marked, 50 small stones were found after death. This hollow is part, however, of the general cavity of the bladder, and is a very distinct thing from certain pouches which are occasionally formed in it; these are sometimes very large: the bladder I now show you has five pouches in it of different dimensions, all communicating with the common cavity by small openings, although they afterwards enlarge to a considerable size. These pouches occur much more frequently than is commonly supposed, and cause great inconvenience. In the museum of the Royal College of Surgeons, there are several very fine preparations, in which they are remarkably large, equalling the size of the bladder itself.

The formation of these pouches depends upon the peculiar structure of the bladder, and on the obstruction it meets with in the due exercise of its function, in the manner I shall endeavour to explain. There are certain points, you have already heard, in which I differ from some anatomists, and this is one; and there are others which I shall state from time to time, merely premising, that in matter of opinion I am very willing to yield, and to consider myself in error, but in matters of fact, none of us ought to concede except on demonstration, and I hope all of us will submit to proof. The longitudinal muscular coat of the bladder is composed of a layer of fibres, which have in parts little lateral connexion with each other, and are consequently capable of easy separation. The manner in which they are disposed you can see in the fresh bladder before you, as well as the points of communication between their respective fibres. If this coat be dissected off, by making an incision extending from the centre of the fore part of the prostate, to the summit of the bladder,

and then turning it outwards to the right and left, it will be seen that it passes over the prostate and is not confined to the bladder alone. As the fibres descend from the top and sides of the summit, they sweep by the ureters, becoming more compact and firm, and in many cases, some are reflected back upon the ureters, fixing and steadying them in their places. They then lie upon the sides of the prostate, being partly inserted into it and its capsule, and into a tendon, which they form on the fore part of the prostate, and which is usually double, one proceeding from each side. These tendons are in connexion on their upper part with the pelvic fascia, and are commonly termed the *inferior ligaments of the bladder*, and by the French, the *pubio prostatic ligaments*. In the preparation I now show you there was but one tendon in the centre, and the fibres from each side converged, and were inserted into it. My old master and friend, the late Mr. Wilson, who was perhaps the best, as he was certainly the most laborious, anatomist of his early days in London, used to say, that the number of those tendons was uncertain, that he had often found three and even more; be they, however, more or less in number, they run on to be inserted into the pubes, near its symphisis. If the attachment which the pelvic fascia, descending from the pubes, has with them, be dissected off, some fibres will often be seen arising from them a little anterior to the prostate, and running backwards and downwards in a radiated form, as you see in this preparation, to the fore part and sides of the prostate gland. These are the fibres which modern French anatomists depict in this situation, particularly Blandin; and they are, I presume, the anterior compressors of the prostate of Winslow, mentioned by British anatomists, but not shown in their engravings of these parts, any more than those which I have been describing as belonging to the bladder, and compressing the prostate in a more marked manner. The longitudinal fibres of the bladder cannot embrace the back part of the prostate on account of the vesiculæ seminales, which would interfere with their continuance in this direction; they are, therefore, inserted into a sort of tendinous line, short of, but attached to, the posterior part of the prostate. In these preparations, and in others on the table, you will see this apparent termination, which is underneath the uvula of the neck of the bladder. They do not, however, always terminate at this part; for in this preparation a strong band of muscular fibres is seen going into the prostate; and Mr. Hancock, who dissected it, was obliged to divide a portion of the gland to show them terminating and apparently inserted into the verumontanam with the ejaculatory ducts, which they appeared to surround. You are aware that my various avocations will not admit of my making these dissections myself; I can only direct and superintend, and when anything appears doubtful, examine, and re-examine, until it seems to be clear and demonstrable. You are therefore indebted to Messrs. Taylor, Bedford, and Hancock, who have been particularly diligent students, and therefore attached to me at the ophthalmic hospital, for these preparations. The strong transverse and spiral cords, observable in the inner layer of the muscular coat of the bladder, you can see from the inside without any preparation, except at the neck of the bladder, where they are rarely or scarcely perceptible. These gentlemen and I have made many attempts to discover circular fibres around the neck of the bladder, but we have not succeeded satisfactorily, so as to show any of importance. In this preparation there are some transverse fibres, crossing directly over the opening from the bladder into the urethra, and they are the most marked I have seen; although the mucous membrane has been carefully dissected off in several of the preparations before you, both in the recent state and after lying some days in spirits. I am of opinion, then, that the portion of the bladder surrounding the opening into the urethra possesses but little muscular contractility, whilst it is endowed with a considerable degree of elasticity, which any one may ascertain by stretching the part. When the two muscular layers of the bladder contract, its tendons inserted into the pubes, and the prostate generally become the fixed points, the urine is forced against the orifice of the urethra, which yields by its elasticity, and returns to its former state when the pressure is removed. I am aware that in certain paralytic states of the bladder, the urine may be made to flow by pressing on the abdomen immediately over it, which cannot be done in a healthy person, and this would seem to imply, that a muscular power was the cause of the urine being retained; although, on the other hand, the urine is retained and collected in considerable quantity in some paralytic cases without making its escape when assisted by the erect position, implying that there is also an elastic power acting at the neck of the bladder. That fibres have been described surrounding this part is undoubted, but no anatomist has dissected them in such manner as to admit of their being truly called a sphincter muscle, although that is the name given to them. It is possible that this part may be both muscular and elastic, and I am willing to take that view of it, but it is right I should tell you it has been supposed by the older anatomists, that the muscular power which prevented the flow of urine resided in those muscles which surround the membranous part of the urethra; and I have it in my power,—indeed, the preparations are on the table to show, and to describe to you, muscles of that part unknown to modern anatomy, which will in future attract considerable attention. Mr. Taylor will demonstrate and explain them, when this lecture is concluded, to those who wish to see them now.

It is a matter of very little consequence, whether it be decided that the part surrounding the orifice of the bladder be acted upon by a structure entirely muscular, or entirely elastic, or partly both; but the fact of there being an elastic structure at the part is of great importance, because it enables us to account for the occurrence of certain diseases, in a more satisfactory manner than formerly. It enables us to take new views even of these diseases, and I hope to adopt new modes of practice, which will be found more beneficial in aid of our suffering fellow creatures than those which are commonly resorted to.

The term, neck of the bladder, is one which has several meanings; some anatomists confining it to one part, some to another, and even including the whole of that part of the urethra which passes through the prostate gland. I always, however, understand, and shall speak of the neck of the bladder, as of the small part surrounding the very opening itself into the urethra, and which, therefore, is a ring, a little broader or thicker than the bladder itself. It is that portion on which the uvula is situated, the urethra being before, the bladder behind it, and the abruptness with which the opening commences, when viewed from within, appears to me to warrant the acceptation of the term, whilst the diseases which affect this part render it worthy of an accurate definition. When this part loses the natural elasticity with which it is endowed, and which it does from internal changes, the consequence of disease, it becomes firm and contracted, constituting a structure resembling in many respects those which take place in any part of the urethra. In common language, among unprofessional persons, a stricture at the neck of the bladder is often said to exist, but gentlemen know nothing of the exact situation of internal parts, and suppose that an obstacle at six or seven inches distance from the orifice of the urethra must be at the neck of the bladder. It is not, however, within two inches of it or more, generally speaking; and if you refer to the latest surgical authorities on this subject, you will find it, I believe, invariably stated, that stricture does not take place beyond six or seven inches, or the commencement of the membranous portion of the urethra; and all the derangements which occur beyond that part, are attributed to disease of the prostate. This is, however, a very great mistake; this gland is by no means so often in fault as has been supposed; and no greater error has been committed in surgery, than that which supposes the third lobe, as it is called, of the prostate to be the common cause of those difficulties in making water which occur so frequently in elderly people, and sometimes in young ones. I do not deny that a portion of the prostate may enlarge and project into the bladder, preventing the flow of urine from it; but I mean to affirm that this evil takes place more frequently, and is more effectually caused by disease of the neck of the bladder, totally unconnected with the prostate, than by disease of that part, a fact I consider exceedingly important, because it leads to improvement in this branch of surgery, and to the introduction of more effective means of cure. A knowledge of this fact enables us also to explain how other diseases of the bladder take place, and how other symptoms, not hitherto explained, have arisen; but this subject is so important, that I shall defer it until the next lecture. This I shall endeavour to give next Saturday; but as I have not at this season much time to spare, you will, I trust, excuse me if I should be unable to attend at the time I have appointed.

STOPPING OF TEETH.

We perfectly agree with Mr. Delafons in his observations on the very injudicious and dangerous mode of stopping teeth, which is often adopted, and we look with disgust and contempt at the numerous advertisements which daily catch the eye, which pretend to recommend mineral succedaneums, and various chemical preparations which never answer. We have, however, had many opportunities of witnessing some cases, in which Mr. Prew, a dentist of Bath, has been eminently successful, and we have seen him employ his metallic stopping with the greatest success. A metallic preparation is amalgamated with quicksilver, and placed, whilst soft, in the cavity of the decayed tooth, the quicksilver is pressed out in globules, which correspond in weight with the quantity which was employed, and, in the course of a few minutes, the substance becomes as hard as the enamel of the tooth. We have seen some instances in which Mr. Prew's stopping has continued for years without the slightest change.

Reports of Societies.

PRIZE QUESTIONS PROPOSED BY THE MEDICO-BOTANICAL SOCIETY.

At a Meeting of the Council of the Medico-Botanical Society of London, held 12th February, 1833,

Earl Stanhope, President, in the

Chair.—It was Resolved, that the Gold Medal of the Society shall be offered for the best Essay in the English, French, German, or Latin language, on the question, "*What is the vegetable substance which could be employed with success as a Substitute for Mercury in the cure of Syphilis, or of diseases of the Liver?*" And that the Silver Medal of the Society shall be offered for the best Essay "*On the medicinal qualities and uses of any indigenous Plant which is not yet sufficiently known, or on new uses and applications of any other indigenous Plants,*" provided that such Essays possess sufficient merit; and that they shall be received till the close of the year 1834, and that Medals shall be bestowed at the Anniversary, January 16th, 1835.

That each Essay shall be accompanied by a sealed paper, containing the names, the address of the Author, and marked in the same manner as the Essay; and that each Essay to which a Medal is not awarded, shall, according to the wish of the Author, be restored to him, or submitted to the Council, in order to its being read at a General Meeting.

By order of the Council,
GEORGE CLENDINNING, *Secretary.*

WESTMINSTER MEDICAL SOCIETY.

Saturday, April 13, 1833.

Dr. Sigmond in the Chair.

The president stated that the prevalence of the catarrh had been such as to prevent the presence of many of the officers and members, and to this also he must ascribe the thinness of the present meeting.

Mr. Bosvine exhibited a monstrosity:—he observed that it appeared very similar to one to which his attention had been drawn by a newspaper report, which detailed a coroner's inquest at Horncastle, upon an infant born with a bloody head. The fœtus, which was shown to the Society, was in every part fully developed, excepting at the back part of the head. The occipital bone was wanting; and there appeared in its place a mass of what seemed to the eye coagulated blood.

Professor Burnett considered it to be a specimen of arrested or perverted development.

Mr. King then proceeded to make some observations on hydrophobia:—he observed, that notwithstanding Hippocrates had not mentioned it, and that there was much obscurity among the ancients on the subject, and that even many of the moderns had doubted the existence of a disease which could be conveyed by the rabid animal, and affect the whole system, still no doubt now should exist upon the subject, since actual experiments proved it. In 1814, Dupuytren and Majendie had inoculated a dog, and its bite proved fatal to two others. He characterised the disease as an aversion to liquids, attended with convulsions, which terminate in death. He observed that the time of its development was from the fifteenth to the fortieth day, though it had remained latent a year, nay, even three years. He dwelt upon the modes of cure, but regretted so little could be done.

Dr. Webster, Professor Burnett, and some other members spoke on various points connected with the disease.

Dr. James Johnson proposed that the subject of the present epidemic catarrh should be discussed at the next meeting, which was assented to; and Mr. Malyn's paper on factory labour was therefore postponed for a future meeting.

CASE OF ANÆMIA OF THE KIDNEY.

BY JAMES WYNN, ESQ., M.R.S.C., LONDON.

The following case of anæmia of the kidney lately came under my observation, and was remarkable from the circumstance of its not having presented any symptoms, which could have led to a suspicion of the organic

changes which must have been going on for a considerable time previous to death.

13th January. J. B., aged 50, a weaver. There is extensive œdema of the trunk, face, and limbs, and particularly of the scrotum, which measures sixteen inches in circumference. States that he had been labouring under more or less œdema of the legs for three years, but that it was only within the last three months that the swelling of the belly and scrotum appeared. The principal symptoms which attracted attention were the universal anasarca above mentioned, increased action of the heart, accompanied with bellows murmur, and very loud bronchial respiration in the upper and anterior portion of the left lung. These symptoms continued with very little alteration, excepting some diminution of the swelling of the scrotum from the use of elaterium, for about a week, when attention was directed to the state of the urethra, on account of his complaining of making water very frequently in small quantities, and attended with difficulty and pain in passing it. Upon attempting to introduce a catheter, a stricture was discovered near the bulb of the urethra. By the use of the catheter, leeching, &c., he was enabled to make water a little freer, and with less pain, but this amelioration was of short duration. Vomiting, of a greyish fluid, came on a few days afterwards, accompanied with extreme debility, and which symptoms continued with little intermission until his death, which took place shortly afterwards.

Necrotomic examination—Chest.—Left ventricle of the heart considerably hypertrophied without dilatation, and a similar state of the right, but not to so great an extent. Lungs gorged with serum, and the upper portion of the left lung considerably advanced in the first stage of hepatisation. *Abdomen*—Peritoneum contained about six ounces of fluid. Liver, stomach, spleen, and intestines apparently quite healthy. Both kidneys were of an unusually pale colour, and upon making incisions through them, their cortical portions were found to have degenerated into a fibro-cartilaginous substance of a pale yellow colour; the tubular portions were quite sound, excepting one or two points where a few of the uriniferous tubes appeared to have taken on the same diseased action. Mucous membranes of the calyces and pelvis were of a natural consistence, and no where injected. Bladder very much contracted, and contained a small quantity of turbid urine; submucous cellular tissue indurated and thickened to the extent of a quarter of an inch; mucous membrane very much injected, but of the natural consistence. Prostate gland—texture *quite* natural, size *normal*—a firm old stricture was discovered in the membranous portion of the urethra, and the remains of a false passage.—Head not examined.

Remarks.—This case, as thousands of others have done, proves the fallibility of general signs, and the superiority of physical, as shown by the appearances found in the chest, and those in the abdomen. The former were indicated before death, but the affection of the kidneys presented no signs, by which any notion could have been formed respecting the nature of the lesions discovered on inspection. It is satisfactory, however, to learn, that even if the precise nature of the disease could have been discovered, medicine would have been of little avail, at least when the structure of the kidneys had become so extensively diseased as it must have been at the time he applied for medical assistance; although, it is probable, the disease might have been arrested, could it have been discovered and properly treated at the outset. The original cause of this affection I consider to have been the habitual dysuria produced by the stricture, and which ultimately led to atrophy of the kidneys, from the mechanical impediment it must necessarily have caused to the functions of those organs. That

the lesions were owing to anæmia and not to irritation, I think probable, from the circumstance of the mucous membrane and tubular portion of the kidneys being quite healthy, whilst the *secerning* portions were perfectly bloodless.—*The Glasgow Medical Journal, April.*

CASPAR HAUSER.

SINCE the extraordinary story of Peter the Wild Boy, whose biography is so admirably given by Blumenbach, we have had no case that has excited greater interest than that of Caspar Hauser. It abounds with singular circumstances, and if true, the deductions, both medical and physiological, would be of the utmost importance to science. Caspar Hauser was found near the Haller Gate at Nuremberg, the 26th of May, 1828, worn out and in tears. He gave a letter, of which the following is an extract, to the first person he met; it was addressed to the commander of a regiment stationed in the town.

"*From a place near the Bavarian frontier, which shall be nameless,* 1828.

"HIGH AND WELL BORN CAPTAIN!

"I SEND you a boy who wishes faithfully to serve his king. This boy was left in my house the 7th day of October, 1812; and I am myself a poor day labourer, who have also ten children, and have enough to do to maintain my own family. The mother of the child only put him in my house for the sake of having him brought up. But I have never been able to discover who his mother is; nor have I ever given information to the provincial court that such a child was placed in my house. I thought I ought to receive him as my son. I have given him a Christian education; and since 1812 I have never suffered him to take a single step out of my house; so that no one knows where he was brought up; nor does he know either the name of my house or where it is. You may ask him, but he cannot tell you. I have already taught him to read and write: and he writes my handwriting exactly as I do."

His appearance is thus described:

"His skin was fine and very fair; his complexion was not florid, but neither was it of a sickly hue; his limbs were delicately built; his small hands were beautifully formed; and his feet, which showed no marks of ever before having been confined or pressed by a shoe, were equally so. The soles of his feet, which were without any horny skin, were as soft as the palms of his hands; and they were covered all over with blood blisters, the marks of which were some months later still visible. Both his arms showed the scars of inoculation. His face was at that time very vulgar; when in a state of tranquillity it was almost without any expression; and its lower features, being somewhat prominent, gave him a brutish appearance. He scarcely at all knew how to use his hands and fingers. He stretched out his fingers, stiff and straight and far asunder, with the exception of his first finger and thumb, whose tips he commonly held together so as to form a circle. Where others applied but a few fingers he used his whole hand, in the most uncouth and awkward manner imaginable. His gait, like that of an infant making its first essays in leading-strings, was, properly speaking, not a walk but rather a waddling, tottering, groping of the way,—a painful medium between the motion of falling and the endeavour to stand upright. In attempting to walk, instead of first treading firmly on his heel, he placed his heels and the balls of his feet at once to the ground, and raising both feet simultaneously with an inclination of the upper part of his body, he stumbled slowly and heavily forward, with out-stretched arms, which he seemed to use as balance poles. The slightest impediment in his way caused him often, in his little chamber, to fall flat on the floor. For a long time after his arrival he could not go up

or down stairs without assistance; and even now, it is still impossible for him to stand on one foot and to raise, to bend, or to stretch the other, without falling down * * *.

"He was so entirely destitute of words and conceptions,—he was so totally unacquainted with the most common objects and daily occurrences of nature, and he showed so great an indifference, nay, such an abhorrence, to all the usual customs, conveniences, and necessaries of life, and, at the same time, he evinced such extraordinary peculiarities in all the characteristics of his mental, moral, and physical existence, as seemed to leave us no other choice, than either to regard him as the inhabitant of some other planet, miraculously transferred to the earth, or as one who (like the man whom Plato supposes) had been born and bred under ground, and who, now that he had arrived to the age of maturity, had for the first time ascended to the surface of the earth and beheld the light of the sun. * *

"Not only his mind, but many of his senses, appeared at first to be in a state of torpor, and only gradually to open to the perception of external objects. It was not before the lapse of several days that he began to notice the striking of the steeple clock, and the ringing of the bells. This threw him into the greatest astonishment, which at first was expressed only by his listening looks, and by certain spasmodic motions of his countenance: but it was soon succeeded by a stare of benumbed meditation. * * *

"His whole demeanour was, so to speak, a perfect mirror of childlike innocence. There was nothing deceitful in him; his expressions exactly corresponded with the dictates of his heart, that is, as far as the poverty of his language would admit of it."

The following is abridged from Hauser's narrative:—

"He neither knows who he is nor where his home is. It was only at Nuremberg that he came into the world. Here he first learnt that, besides himself and 'the man with whom he had always been,' there existed other men and other creatures. As long as he can recollect he had always lived in a hole (a small low apartment, which he sometimes calls a cage), where he had always sat upon the ground, with bare feet, and clothed only with a shirt and a pair of breeches. In his apartment he never heard a sound, whether produced by a man, by an animal, or by any thing else. He never saw the heavens, nor did there ever appear a brightening (daylight), such as at Nuremberg. He never perceived any difference between day and night, and much less did he ever get a sight of the beautiful lights in the heavens. Whenever he awoke from sleep, he found a loaf of bread and a pitcher of water by him. * * * Thus, one day had passed as the other; but he had never felt the want of any thing—had never been sick; and, once only excepted, had never felt the sensation of pain. Upon the whole, he had been much happier there than in the world, where he was obliged to suffer so much. How long he had continued to live in this situation he knew not; for he had no knowledge of time. He knew not when or how he came there; nor had he any recollection of ever having been in a different situation, or in any other than in that place. The man with whom he had always been, never did him any harm. * * *

The question that presents itself is, could a human being exist for a series of years under the circumstances thus described? and would the developments, both moral and physical, have been so complete as those that are here described? Our opinion is against the truth of the narrative; yet when we remember how difficult, in the case of Peter, it was to attain truth, we are not surprised at the discussion this subject has excited. Earl Stanhope, with those noble feelings of philanthropy, and with that ardent zeal for the cultivation of science, which so peculiarly distinguishes him, has placed this youth under tuition, and has carefully and

thoroughly investigated all the points connected with his story, and believing it to be true, has given him every advantage which education can offer.

THE
London Medical & Surgical Journal.
Saturday, April 20, 1833.

REFORM! REFORM! REFORM!

EVERY eye has been watching, carefully and closely, the proceedings of the House of Commons. The public has waited with exemplary patience, with great good humour, and with a willingness to give credit for good intentions, to see whether a Reformed Parliament can or will comply with the loudly expressed voice of the nation, for an inquiry into the abuses of our institutions, and for such alterations as may render them suitable to the spirit of the age. The public demands that good, wholesome, and vigorous laws be substituted for the regulations adapted for a monastic system, and for a people as yet not emerged from darkness. The leaden mace and the iron sceptre of Henry the Eighth will not coerce the gentle yet determined spirit, that is imbued with the learning, with the morals, and with the polished manners of the present day.

As yet the House of Commons has done nothing; nor have its members appeared willing to foster the growth of intellect, and to promote the proper education of the people. It has as yet been only the servile imitator of the Boroughmongering Parliament. It has not entered upon the mighty business that it has to perform. It has had, as in all former Sessions, one grand parade question, that has absorbed all other thoughts, all other duties; and, as in former days, the leading political gladiators have, upon a grand field day, stepped out of the ranks, flourished their foils, thrown themselves into the well-known attitudes, made a few apparently desperate lunges at their respective adversaries, and then marched back, with looks of unspeakable triumph, to the ground which they previously occupied, amid the no small wonderment of their companions in arms, who, perfectly satisfied with the grand display, and pleased that the campaign is neither so laborious nor so arduous as they had anticipated, have no earthly objection to a repetition, once in every year, for seven long years, of such glorious exploits. But we ask, will the country be contented with this? will it allow the important points of discussion to be slurred over? will it sanction that the real business of the people be hurried by, because the gentlemen have had their annual *palaver?* Are the wants, the wishes, the prayers of the people still to be disregarded, to be scoffed at? or to be allowed to slumber in helpless oblivion? Most decidedly do we affirm that the day of cajolement as well as of casuistry is past, though we have much reason to fear there is a lukewarmness where there should be enthusiasm, an indecision where there should be an unchangeable soul, still the time must, in spite of every impediment, quickly come, when the objects of reform must be accom-

plished; when such antiquated bodies as the Royal College of Physicians, if they will not themselves march with the age, must surrender up their moth-eaten charters, and must show what good they have performed, and why they have been allowed to rule triumphant over the learned, the wise and the just; when they will be called on to prove that they have been honest and upright guardians of the general welfare; that they have watched over the health and well-being of this great community, or they must surrender up their high privileges, or show that they are essential to the public weal; and if they would shun the scorn of the good, the contumely of the honest, and the sneer of the wise, let them in time set their house in order, for the hour approaches when they shall be called on to prove that they have well employed the talent committed to their care. It is true, that from the apathy of the members of the body of representatives they have strength, but this will not long avail them. We know that they think that there will not be found bold men among the Licentiates, nor active men to forward their claims in the House of Commons. We tell them they are foolishly, fatally mistaken. We say to them, they shall and must yield; but we implore them as their warmest, their most sincere friends, as advocates of truth and justice, as fellow-labourers in the vineyards of science, to take advantage of the present apparent calm, of this moment of outward tranquillity, to prepare themselves for the storms that are about to rise around them, by taking openly the straightforward and the beauteous paths of justice and of integrity.

We assert that, unless the Royal College of Physicians take some steps to prevent their members being ill educated, illiterate, and unworthy the science they profess, the whole body must sink into contempt and oblivion. As long as the Universities of Oxford and of Cambridge, in which there is scarcely the semblance of a medical school, are allowed to be the seats of pretended education for physic, so long will actual ignorance and want of practical power to relieve the sick, be the distinguishing mark of the College. It is true that many of the Fellows are experienced and enlightened men; but this is not the result of their education at the Universities, but in spite of it; the time, we once more assert, is at hand, when Edinburgh and London must be recognised by the College, as the schools from which men are to gather knowledge, and the power of doing good; and, until the students are placed upon the same footing as those of Oxford and Cambridge, the voice of discontent and of dissension will be heard, and a bitter spirit of envy and of disgust be engendered. If we have often harped upon this subject, it is because we deeply feel it, and we know that we are only the echoes of the general sentiment. Our hope is to see our noble and honourable profession a united band of honest men,—we wish to know that talent and integrity are fostered, that quackery and

impudence are punished, and that industry and zeal are rewarded and respected.

THE INFLUENZA.

An epidemic catarrh, similar to those which have at various epocha been prevalent in England, is now pervading London, and has begun to extend its influence in the country. The symptoms have been in general those which are well known as characteristic of the common cold; besides which there has been a greater degree of fever, and of prostration of strength. It would be, of course, a useless task to describe minutely the various forms which the disorder has worn, but the following have been the most common complaints that have been made:—The attack has usually commenced with a sensation of chillness, some degree of shivering, alternating with flushes of heat, languor, lassitude, and incapability of following the ordinary occupations, discharge from the nose and eyes, cough, accompanied with much difficulty of expectoration, sense of heat and soreness in the trachea, hoarseness, considerable pain in the head, especially over the eyes, oppression and tightness in the chest, pain in the loins, neck, shoulders, and limbs; the tongue generally covered with a brown coating, the skin hot and dry, the bowels confined, the pulse full, seldom hard; the nights passed without refreshing sleep. The attack has generally been sudden, and at its onset most violent; but within forty-eight hours the symptoms have remitted, and the health has been most frequently quickly re-established. In some instances, where there has been a tendency to pulmonary disease, difficulty of breathing, excessive cough, and violent peripneumonic symptoms have supervened, which, in some instances, have terminated fatally. The treatment that has been found most serviceable has been small doses of calomel with antimonial powder at night, the saline effervescing draught during the day; for the cough, oxymel of squills; in some cases emetics have been employed at the first attack with great success. Dover's powders have also been found serviceable when taken at night. Bleeding has seldom been required, excepting in cases where inflammation of the pulmonic system has been apprehended.

Of these influenzas there are a great number on record: a very ample catalogue of them is given by Cullen, under the head of *Catarrhus a Contagio*, from the year 1323 down to 1767. The most valuable histories of some of these epidemics have been given us by Sydenham, by Dr. Edward Gray, by Dr. Carmichael Smyth, by Dr. Heberden, and by Dr. Whytt. The account of the epidemic catarrh of the year 1782, compiled by Dr. Gray, and which is to be found in the first volume of the Medical Communications, is one of the most interesting memoirs we possess of the kind. The disorder seems in character and in the mode of treatment to bear a very strong resemblance to the present.

The state of the weather has been quite sufficient to account for the propagation of the disease, though some of our professional brethren, strongly imbued with the doctrine of contagion, believe it to have been conveyed from person to person, and to be propagated by contact; and we should not be at all surprised to find some of them who will prove its importation from Russia, from whence they have been, from a very early period of our medical annals, in the habit of looking for contagious diseases.

THE PHRENOLOGIST'S OBSERVATIONS ON THE MUMMY.

It was a matter of surprise, on Mr. Pettigrew's examination of the mummy, that there were found none of the usual accompaniments of the king or the priest; as on these only, in gene-

ral, gilding of the whole body was performed. Mr. Holmes, the learned phrenologist, has, however, unfolded this mystery; for upon examination of the cranium, he discovered that the individual, whatever his station may have been, had the most perfect development of the organ of vanity, in fact, it was so large, that the ruling passion would be so strong even in death, that he would have sought the distinction of having his body gilded. It appeared that he must also have been a patriot and a true lover of his native land: inhabitiveness was strongly marked. How much would he have deplored his fate could he have known that 3000 years after a peaceful slumber in the grave, his naked vanities should be exhibited in a foreign land.

EPITAPH ON THE TOMB OF MR. ABERNETHY.

We feel great satisfaction in having another opportunity of paying a tribute of respect to the memory of the justly celebrated John Abernethy, and at the request of a correspondent insert and translate the epitaph on his tomb. The translation is far inferior to the classic beauty of the original, but it conveys the sense of the writer.

H. S. E.

JOHANNES ABERNETHY, R. S. S.
REGII CHIRURGORUM COLLEGII QUONDAM PRÆSES,
QUI, INGENIO, PROBITATE, BENIGNITATE,
EXIMIE PRÆDITUS,
ARTEM MEDICUM, PER ANNOS PLURIMOS,
SUMMA CUM DILIGENTIA, SOLERTIA, FELICITATE,
COLUIT, EXERCUIT, DOCUIT, AUXIT,
ET SCRIPTIS HOC MARMORE PERENNIORIBUS
POSTERITATI TRADIDIT;
MORBO DEMUM GRAVISSIMO CONFECTUS
CUJUS ANGORES HAUD ALITER DOMANDOS
PIO ET CONSTANTI ANIMO SUBEGIT,
CONJUGI, LIBERIS, AMICIS, DISCIPULIS,
HUMANO GENERI, CUI TANTOPERE SUCCURRERAT,
FLEBILIS,
APRILIS DIE 20. A. D. 1831. ÆT. SUÆ 67.
PLACIDE IN CHRISTO OBDORMIVIT.

HERE LIES ENTOMBED
JOHN ABERNETHY, F. R. S.
FORMERLY PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS,
WHO WAS PRE-EMINENTLY ENDOWED
WITH GENIUS, PROBITY, BENIGNITY,
CULTIVATED, PRACTISED, TAUGHT, INCREASED
THE MEDICAL ART FOR MANY YEARS
WITH THE GREATEST DILIGENCE, ABILITY, SUCCESS,
AND BY WRITINGS MORE DURABLE THAN THIS MARBLE
DELIVERED IT TO POSTERITY;
SEIZED AT LENGTH BY A MOST PAINFUL DISEASE,
WHOSE PANGS COULD SCARCELY BE OVERCOME,
HE SUBMITTED WITH A PIOUS AND EQUABLE MIND,
LAMENTED
BY HIS WIFE, CHILDREN, FRIENDS, AND PUPILS,
HE PLACIDLY SLEPT IN CHRIST
ON THE 20TH DAY OF APRIL, A. D. 1831, IN THE
SIXTY-SEVENTH YEAR OF HIS AGE.

MR. SALMON ON THE FUNCTIONS OF THE RECTUM.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—As in the review of O'Beirne on the Progress of Defecation, you have alluded to my opinions in a manner which requires some explanation from me, I request your early insertion of the following observations on the theory advanced.

I am, Gentlemen,
Yours very obediently,
FREDERICK SALMON.

12, *Old Broad-street,*
April 9th, 1833.

Dr. O'Beirne denies the general opinion of physiologists, that the use of the rectum is to contain fæcal matter, to allow its accumulation, and to act as antagonist to the sphincter ani muscles.

His ideas upon this subject may be best refuted by alluding to the action of the bowels (of which the rectum is but a part) as far as defecation is concerned, during health and disease. I believe it is acknowledged as a true fact, that, provided the functions of the alimentary canal are healthily performed, the contents of the small intestines are in a perfectly fluid state. In the colon their condition is somewhat changed, and by the time they arrive at the sigmoid flexure, from the separation by absorption of the healthy from the excrementitious substance, the residue is of the consistence of good cream; this fact I have frequently ascertained. Arrived at the sigmoid flexure, the progress of the fæces is retarded, not only by the form of the colon but by the peculiar alteration of the longitudinal fibres of this intestine, which here unite and spread over the upper curve of the rectum, serving rather to support than as heretofore to propel the contents of the bowel. If the fæces, lodged at these parts, be examined under circumstances of health, they will be found of a very soft pulpy consistence. In this condition they gradually accumulate, and are imperceptibly propelled into the lower curves of the rectum, which, so soon as a sufficient quantity is collected to stimulate it to contract, evinces its disposition to empty itself, by the desire which we feel to pass a motion. This relief is accomplished by the contraction of the colon, and the effort of the abdominal muscles, propelling the contents of the sigmoid flexure, and upper curves of the rectum, into the lower, as this part relieves itself by the contractile power of its circular fibres. Such is, I believe, the progress of defecation, as far as the mechanism (if I may be allowed the expression) of the intestines is concerned, when the bowels act regularly and healthily. But if they are constipated, or obstructed from any local cause, especially stricture, the fæces accumulate and become indurated, as we find them in the cells of the healthy colon, but more especially when this intestine is morbidly distended; or, as they will be felt in the rectum, if its passage is obstructed by stricture near to the anus.

When the rectum is empty, its muscular coat is naturally in a state of passive contraction, which obviously retards rather than facilitates the passing of the stools, till they collect in a quantity sufficient to stimulate the bowel to contract; so far, therefore, but no further, the rectum may be said to act as an antagonist, and prevent too rapid an accumulation in its extremity. But if it is not intended that the gut should contain fæcal matter, why is its form so peculiar? Why is its muscular power greater than that of any other portion of the intestinal canal? Why is its capacity larger at the end than at the beginning? and lastly, why are the absorbents and mucous glands so much more prevalent at this point?

Dr. O'Beirne argues, "that if it was a receptacle for fæces the accumulation of these would excite irritation in the bladder, and also in the sphincter ani muscles, thereby depriving the individual of the power of retaining his fæces."

Now, both these effects unquestion-

ably will happen if the rectum is not relieved of its contents; hence the symptom — irritable bladder — which invariably accompanies stricture in either of the two upper curves of the rectum; hence, likewise, the diagnostic sign of stricture near the anus, a frequent desire, with an incapability to pass motions.

Dr. O'Beirne, in proof of his theory, instances "the loss of the sphincter by syphilis, or carcinoma." Whether the former effect ever occurs, I think is questionable; and surely he does not mean to say, that if this part is destroyed by the latter disease, that the patient will retain his motions as before; if so, I beg from experience to dissent from any such opinion, for there is no symptom of genuine carcinoma more invariable, than an almost constant necessity to void the evacuations, which are passed with the acutest agony.

Neither, in my limited judgment, is his examination of the rectum at all conclusive of the correctness of his opinions, considering it as I do, to be anything but a scientific exploration of the part.

It is quite natural that an instrument of the description he appears to have used (a stomach tube) would pass without resistance through the last curve of the gut; equally certain is it, that some pressure will be requisite in order to traverse its second curvature with a *straight*, although it be an elastic, tube, not a third of the size of the natural calibre of the bowel. No wonder, therefore, he experienced a resistance in passing the second portion of the rectum; or that this should have increased upon his attempting to propel the tube through its superior part, correctly denominated the great curve of the bowel, and the sigmoid flexure. We need only refer to the form of the lower intestine, and the loose manner in which it is connected with the pelvis, to perceive, how insufficient an examination, made after the manner Dr. O'Beirne has stated, must necessarily be; for it is obvious, force must be used, not only to overcome the resistance produced from the passive contraction of the gut, but to cause the tube to pass the angles formed by the natural curves of the bowel.

As to the causes of contraction of the sigmoid flexure of the colon, the late Mr. White and myself long ago stated them to be just such as Dr. O'Beirne now describes. I likewise have affirmed in my writings and lectures, that I believe stricture at this part is *sometimes* congenital.

The opinions I originally suggested, as to the frequency of obstruction at this part of the colon, was doubted by the profession, at least that portion of it who professed to review the surgical works of the day only a few years since; but the conviction of experience has substantiated the facts I then imparted, not only upon this, which is not the least essential point, but many others connected with the nature and treatment of diseases of the rectum.

Dr. O'Beirne denies the existence of permanent stricture of the lower part of this intestine, an assertion so totally at variance with practical experience, that it is hardly necessary I should refute it. If, however, you or any members of our profession wish to be satisfied of the incorrectness of the doctor's judgment upon this point, I shall feel a pleasure in showing you, or them, numerous morbid preparations confirming the fact; in some of these the smallest sized bougie cannot be passed through the strictured surface. I admit that any one who is not practically accustomed to examine the rectum, may mistake the natural contraction of the gut for stricture; and for this reason, the mucous tunic of the bowel is not endued with any material contractility, and is, therefore, during the period of the passive contraction of the muscular coat, thrown into numerous folds, which vary in number and magnitude, and may always be felt with the finger; sometimes these are of a circular shape, at others they

form prominent and irregular ridges in the bowel*.

When, therefore, the muscular coat is in its utmost degree of natural contraction, and the mucous folds circular, they impart a sensation similar to that which is felt from a permanent stricture, for which it may readily be mistaken, *only*, however, when the finger is used; for the introduction of a bougie, *which assimilates to the natural calibre of the bowel*, will at all times dilate the intestine without difficulty or pain; whereas, if a small bougie is used, the rectum being irritated will contract upon it, and the action thus induced is considered to arise from stricture. A similar effect (contraction) will follow even from the sudden distension of the bowel by the injection of enemata; hence the difficulty which sometimes occurs in their use.

I offer these few remarks on Dr. O'Beirne's theory, knowing the subjects to which he has alluded to be of the greatest practical importance.

12, *Old Broad-street, April* 9, 1833.

* These have been denominated by Morgagni the columns of the rectum.

HINTS TO THE PHYSICIANS.

[We insert the following article because it clearly illustrates the necessity of union among the Licentiates of the College and the independent physicians of the United Kingdom. We are convinced, that there never was so auspicious a period for the agitation of medical reform, and we again call upon the insulted members of the Colleges of Physicians in London, Dublin, and Edinburgh, to associate with the regular Graduates in medicine of this country and the continent of Europe, and to petition a Reformed Parliament for a redress of their grievances. Can they continue to submit to the tyranny and oppression of those who presume to consider themselves their superiors, while every rank in society, from the lowest to the highest, is loudly and successfully demanding and obtaining redress. We are extremely gratified to assure our readers, that preparations are being made for meetings of the physicians, surgeons, and general practitioners, and that petitions to parliament will be speedily presented.]

To the Editors of the London Medical and Surgical Journal.

Gentlemen,—I address you as uncompromising friends of medical reform, as supereminent for liberality in whatever relates to medical science and its diversified collateral branches, and I apply to you, with perfect confidence, that you will, at the earliest opportunity, afford me space for the following *adjuration "to the Physicians at large of the British empire and its dependencies,"* who, being *illegally* excluded from the London College, are compelled to practise independently of their encouragement, sanction, and countenance, or to compromise matters by degrading themselves as *Licentiates*. I have a plurality of objects in view; 1st, I think that the insulting term "Licentiate," the badge of inferiority and degradation, should be forthwith consigned to oblivion. Can it be true, that a learned and talented body, if they knew their strength, would submit to kiss the rod and hug their chains? Would they not, on the contrary, rise *en masse, forcibly* to break the one and burst the other? The term *Licentiate* signifies nothing beyond authority to practise medicine upon a limited scale; and, in order to obtain it, the seekers after it are reduced to the humiliation of absolutely *supplicating* that it may be granted. They are, moreover, required to make the most abject, degrading, and insulting admissions, and wittingly to utter palpable untruths. They must acknowledge, upon their bended knees, that they are incapable of undertaking the care and management of difficult cases, but consider that they may be useful in the treatment of those which are simple; and, therefore, hope they will be considered

entitled to receive a licence (upon payment of such fees as their superiors may please to exact) to practise in a subordinate manner. This being granted, they have to sign a declaration binding them to obey the illegal by-laws *, which afterwards become the source of bitter mortification and disappointment. These abominable preliminaries being settled, and stipulations made, disgraceful in the extreme to either party, the pick-pocketing part of the process is carried into full effect.

It is but natural to inquire what the victim obtains as an equivalent for all this? Aye, here's the rub! He goeth forth possessed of a *licence* to be a physician in London and within seven miles round the same, in order to possess which he virtually denies himself, and immolates his character and legitimate pretensions, by surrendering a diploma, conferred upon him by a far higher and more competent authority, which empowers him (*legally*) to practise the healing art in all its branches, *ubique gentium*.

The *low publican*, who makes a livelihood by selling tobacco, gin, and beer, enjoys advantages in common with the *doctor of medicine*. His licence to deal in these articles is conferred by the magistrates: the *hackney coachmen* and *cabmen* are also *licensed:* the sportsman and dealer in game are qualified in a similar manner; so are the hawker and the pedlar, the chandler's-shop-keeper, and others *ejusdem vulgi*, but the physician is licensed to deal with the health and physical welfare of the lieges by the board in Pall Mall East, where (let me ask) is the real difference among these *licentiates*.

"Was it e'er known in any place but here,
That *licens'd* claim'd to rank with *licenser?*
Go—ask the justices of any quorum,
If, when they call the publicans before 'em,
They ever suffer them, or ale-house wench,
To take their seats upon the solemn bench.
Gods! should a publican the trial make,
They'd whip him first, and then his licence take.
'Twixt them and us what difference prevails,
We license physic and *they* license ales."

Well—the precious piece of parchment being obtained, what has the licensed dealer in medical advice got? or how are his prospects thereby improved? Every sensible *dupe* must answer this by a rueful shake of the head. Some there are, doubtless, among the number, who were taken in, because they considered themselves to be under imperative circumstances, and this excuse is to be made for the majority of the older licentiates, but since the abuse has been so fully laid open, of late years, nothing but a cringing spirit, or absolute folly could have led a graduate of a university * into the hands of such licensers as are always to be found among the extortioners at the King's Mews. It need not be added, that, for my own part, although every way entitled to the miserable distinction, I have never applied to be humbugged; and, acting as I shall ever do, under the knowledge and the feelings of my pretensions, you may depend upon it, that myself, and many others, the great majority of the physicians of the empire, never *will*. We want none of their countenance in the way of *consultations:* these are little better than indications of incapacity in most cases; and, if I were dying to-morrow, I would not allow a *Fellow* of the College of Physicians to visit me in a professional capacity, for I have no faith in one of them.

If it should be alleged, that, in the statements I have made, there is any misrepresentation, I desire to say, that I have received my information from many *Licentiates*, some of whom lament that they did not know the real state of the case until they found it out, to their cost and sorrow; and I shall be glad to see an *authenticated* contradiction or correction, but let it be authenticated.

* Willcocks on the Laws relating to the Medical Profession. 1830.

* This is spoken under a qualification, which will be found in the last foot-note but one to this article.

2ndly. I have another object in writing this article. I wish to see a union and co-operation among *all excluded* physicians, or (as the liberality of college jargon has it) the *alieni homines*, wherever they may reside. But unless such a union shall comprehend the *independents* *, little if any good will result. The Licentiates are but few in number, while the other body is numerous, powerful, and already in a state of *organisation*, prepared, it may be said, for action †.

Whatever measures, therefore, the Licentiates choose to adopt, *must*, in order to be effectual, be in common with the independents, who, having never bowed the knee or come under *make-believe* obligations, cannot be met by the Fellows with any reproach on the score of apostacy and treachery. Let me exhort the Licentiates, therefore, to waive all mock dignity, and to look upon their natural and *powerful* allies (who are ready to lead the way in a struggle which can be but of brief duration, and must end in victory) with cordiality.

I might conclude by recommending that, for the term Licentiate, some other should be substituted, less allied to the dignity of a *pot-boy's employer;* and here allow me to remark, that the adoption of "*member* of the R. C. P." (as some, who are ashamed of the other designation, affect to style themselves) is nonsensical, because there are no *members* of the College. There are *Fellows, Candidates, Inceptor Candidates, Licentiates,* and *Extras,* (aliter, *permissi extra urbem!*) but there is no list of "*members* *." I shall close the whole by suggesting the undermentioned few terms for consideration or selection †.

And I remain yours, &c.

MUTATOR.

* With regard to *scruples of conscience* about having taken an oath, the licentiates may make themselves perfectly easy; for those who administered it had no right to do so, consequently it is unlawful or illegal, and disregarding its objects and obligations cannot amount even to a mere moral *peccadillo.* [There is no oath administered by the College at present, but a promise to obey the by-laws. —Eds.]

† It may not be injudicious *now* to reveal that, but for the unfortunate circumstance of the health of one of the most active and energetic among these having broken down, a formidable combination would have been entered into five years ago. The proper measures were begun, but Providence seems to have designed to spare the College a little longer. The person in question will yet resume his undertaking, if not rendered unnecessary by the coalition proposed above.

* Some few physicians have, of late years, thought themselves under the necessity of taking the licence, solely because they would not be elected to certain situations without possessing it, but several of these have declared that *they would never avow the fact.*

† Let us respect the ancient usage of the "sad and discreet" by putting it all in Latin, whether classical or canine.

A Licentiate might advertise himself as *A.B., M.D., A.R.C.M.,* which, being extended, means *Agnitus* of the Royal College of Physicians: or, *A.B.* &c.; *F.R.C.M.,* and, lest the censors should imagine that *F.* stands for Fellow, we beg to say, that we put it forward for *Fraudatus.* Again, it might be thus, *S.R.C.M.;* here, lest *S.* should be considered as a presumptuous piece of arrogance, whereby a Licentiate might pass for Socius Regii Collegii Medicorum, let it be understood, that *S.* stands for *Spretus.* Lastly, I would suggest *D.,* with its trimmings, to stand for *Derisus:* the plain English of all which is to be found in Ainsworth's Dictionary.

ABSTRACT OF A CLINICAL LECTURE ON TWO CASES OF CONCUSSION OF THE BRAIN.

DELIVERED BY DR. AUCHINCLOSS,

To the Students at the Royal Infirmary of Glasgow, Feb. 27, 1833.

Bell Tatlock, ætat. 16. Dec. 3, 1832. Two o'clock P.M. This morning, while washing a window on the third story of a house, fell to the ground and was taken up insensible. On admission, at 9 o'clock, was still insensible and drowsy; her breathing slightly impeded; pulse low; heat defective; pupils contracted; a scalp wound on left temple, from which there was slight oozing of blood. Extravasation of blood all round and as far back as the occiput, and with feeling of fluctuation in the region of temple. No fracture detected by probe. Is still drowsy, and peevish when spoken to

or disturbed in any way, yet sufficiently sensible to answer questions when aroused. Pulse 96, of tolerable strength; heat returning, and sensation sufficiently acute; bowels slow, though passes urine freely. Has often vomited since admission, in all, about a pound of glairy mucus mixed with blood.

Ft. v. s. ad ℥xx.
℞. *Calomel* gr. vi.; *pulv. antim.* gr. iv.; *Zingib.* gr. ii. ꝛ *st. Vespere enema.*

4. Repeated stools. Restless night, though composed since morning. Complains of severe pain in head, particularly over region of injury. Fluctuation over the space of four square inches, though without the slightest tension. Is perfectly sensible. Pupils rather contracted; pulse 96, full; skin cool; tongue dry, hard, brown. Evaporating lotion to head since admission.

Capiti adhib. hirud. xii. *et postea utat lotione. Si opus rept. v. s.*
℞. *Cal.* ℈ j.; *tart. antim.* gr. j.; *Sacchari* ℥j. *S.* i. *ter in dies.*

5. Quiet night and a good deal of sleep. About ℥vj of blood, in addition to 18 leeches to head, and 12 repeated this morning. Headach less severe. Extravasation over seat of injury considerably diminished. Sight perfectly good, and pupils pretty natural. In other respects perfectly sensible. Pulse 90; skin cool.

Pulvis 4*ta. q. h. et lotio. Mane capt. pulv. jal. c.* ℥j. *c. zingib.* gr. iij.

6. Leeches to head towards evening, after which had sound refreshing sleep. Headach much less. Extravasation all but absorbed. Pulse the same; skin cool; in other respects in a very favourable state. A good deal of thirst, though tongue quite moist; mouth very slightly affected.

Ant. pulv. 6*ta q. h. et lotio capiti.*

7. Tolerable night. Pulse firmer and quicker; skin hotter; says that headach is more severe than yesterday; tongue perfectly moist and clean; gums little or not affected; pupils rather dilated. No feeling of fluid in situation of injury. Wound slightly festered. No stool for 26 hours.

Rep. v. s. et si opus detrah. sang. ad ℥x.
Pulv. 4*ta. q. h. et lot.*
Capt. st. pulv. jal. c. ℥i. *cal.* gr. iv. *et zing.* gr. ii.

8. Repeated stools. A good night. Pulse equally quick. Was not bled, but had 18 leeches to head; pain of head much easier; tongue quite clean and moist; thirst; festering of wound, but without swelling or redness.

Pulv. 4*ta q. h.*

10. Wound cleaner; skin a little warm; pulse about 90; otherwise quite well.

Pulv. mane et v.

11. Pulse 26. In other respects continuing to improve.

15. Pulse 92; skin slightly warm; tongue perfectly clean and moist. No pain or uneasiness any where except at angle of jaw. Wound granulates healthfully.

16. Nearly half an ounce of healthy matter discharged from wound. Probe can be passed nearly half an inch under scalp round wound. Bone in no place is bared of pericranium; mouth slightly under mercury; still some uneasiness behind angle of jaw, though no swelling, and quite free of fever. Simple dressings to wound, with compress and bandage.

23. Discharge of matter entirely ceased, and wound nearly healed; pains have subsided; pulse quite calm, though weak; tongue clean and moist. Has continued powders night and morning.

31. Dismissed cured.

D. Reid, ætat. 29, a sailor, 28th January, 1833. Admitted at 12 o'clock, P. M. In a very drowsy state, from which he can be roused with the greatest difficulty, when he immediately relapses into his former state. Two scalp wounds are situated over right temple and parietal bones, about an inch in length, through which probe passes to considerable extent around, yet without detecting any fissure. There is also a wound

over right superciliary ridge. Feels a degree of pain in wounds, but so far as can be ascertained not over head generally; respiration stertorous; some vomiting, mixed with blood; pupils contractile; pulse 96, of tolerable fulness; tongue clean; bowels slow; some thirst. Has been sent from the police office, and no farther history can as yet be procured; appears to have taken spirits.

29. Restless night; bled to ℥viii this morning; at present quite sensible. Pulse calm, regular; pupils natural; occasional vomiting; slightly drowsy: tongue furred; thirst urgent; some tremor of hands; pain in situation of injury, but little elsewhere. No effect from two doses of medicine, part of which vomited.

St. injiciat enema ex ol. ricini et terebinth. ℥ss. *postea repr. v. s. et in vomitus perstet sinapisma præcord.*

30. Repeated stools; a sleepless night. Still severe headach; countenance flushed; pulse regular, rather slow; no vomiting; to appearance drowsy; about ℥xxx of blood abstracted yesterday afternoon.

Rep. v. s. ad ℥ xij.
℞. *Calomel* ℥ ss.; *opii* gr. iij.;
Cinnam. ℥ ss.; ♏ *et divid. in pulv.* xii.
S. i. *ter in dies.*

Feb. 2. In a very favourable state since last report. Feels quite easy and desirous to go out.—Dismissed.

These cases are examples of what is termed, in surgical language, *Concussion of the Brain.* The term is often indefinitely used by some; but by the expression is simply to be understood a stunning, or rather, a shock or jar given to the brain, by which it is rendered incompetent to perform its ordinary functions for some time afterwards. The first effect of this concussion is generally a tremor or shivering, during which the blood forsakes the surface, and the person is cold. This is called *the stage of collapse.* It was well exemplified in the first case, for the girl is reported to be cold and shivering on admission, and which continued for more than an hour after. She was insensible and drowsy during this time, but these gradually wore off as the heat was restored, so that she was able to answer questions when spoken to loudly, or when she was pinched or disturbed in any way. This was also the case with the man; but he was no sooner roused than he immediately relapsed into the same state. This insensibility or drowsiness, then, may be continued for a greater or shorter period. There is now present a different state of matters from what was at first, in as far as the person is warm instead of being cold. This is what is called *the second stage of concussion*, or that of rallying or reaction. It is characterised by a return of circulation and respiration, by which heat is restored to the extreme parts, by the pulse beating much fuller instead of feebly, as in the former stage, and by the person feeling his sores, and otherwise appearing sensible to impressions made upon him. The heat is no sooner perfectly restored than we find another stage to ensue, viz.—that of inflammation. Thus we have, in all, three stages; one of collapse, or a state approaching to syncope; another of rallying; and a third of inflammation. Hence it is obvious that the means necessary to be used must differ according as the person labours under one or other of these states. Accordingly, so long as the patient lies collapsed, measures calculated to restore circulation, and bring about the natural action of the body, are called for. In the case of the girl this was effected by flannel cloths, wrung out of warm water, and placed on the extremities. The fact cannot be too frequently impressed on the attention of young men that inflammation, as a necessary consequence, succeeds to all mechanical injuries, and more especially those of the head. Hence the necessity of using precautionary measures, such as have the effect of lessening the action of the heart and arteries, and thus preventing or subduing inflammation, should that have occurred.

Hence the reason, too, for the employment of bleeding, purgatives, and cold cloths to the head. On the second day the bleeding had to be repeated, and at the same time calomel and tartar emetic powders were ordered. These were used as auxiliaries to the bleeding; for, next to blood-letting, especially when it has been premised, no medicines have a better effect in subduing inflammation.

One complication worth noticing in the girl's case, is the scalp covered with bloody extravasation to the extent of four square inches. By the application merely of the evaporating lotion, it was nearly all absorbed in two or three days. The deceptive feeling communicated by pressing on such bloody tumours of the scalp was fully explained when this girl was under treatment:—namely, the feeling of a fracture, with which they are often, by ignorant persons, confounded. This has in many instances led to erroneous practice; for some, without even adverting to the consequences, forthwith cut open such tumours. This is decidedly bad practice. No person is justified in having recourse to this expedient, unless when symptoms of compression are present. What would have been the effect of laying open the tumour in this girl? Would it not have converted the whole into a suppurating cavity, just the size of the extravasation? Whereas, by other treatment, the action of the absorbents was excited, and the effusion removed in a few days. The formation of matter is thus prevented by the removal of the interposed blood, and the union of the opposed surfaces, just as when an abscess bursts, and the sides of the cyst collapse and adhere together. But whenever this salutary union does not take place, in that case matter forms. Thus, in the girl, a very small collection of matter took place around the wound. This was attended by a slight aggravation of the general symptoms, which subsided on the matter getting a ready exit.

The lecturer here spoke of the necessity of the patient being very abstemious, and observing great caution for a length of time after any sort of injury of the head, as regarded the case of Reid, who had been only in the hospital five days. Bad effects have been often known to take place long after such accidents. In conclusion, he adverted cursorily to the symptoms of concussion, and went over the general points in both cases as illustrative of that state of the brain. With regard to the treatment, he said, that it had been very much simplified since the division of the affection into three stages by Mr. Abernethy. There was a depletory and a stimulant mode of management. He pointedly condemned bleeding in the first stage. Nothing betrayed so much ignorance. He was the more particular in this respect, because it was always looked for by the public, that when a person met with an injury of the head, that he could not be bled early enough. Was it to be expected that a person in syncope would get better by bleeding? He was convinced that many had been killed by this practice. On the other hand, some persons went to the opposite extreme, in recommending stimulants. Under certain restrictions they were occasionally useful. The axiom was well known in surgery, that just in proportion to the previous depression of the vital powers during the stage of collapse, so would be the excitement afterwards, allowing the person to have rallied. This then showed the necessity of being cautious as to the use of stimulants during the first stage. Frictions and the application of warmth to the extremities, as in the first case, are in general all the means necessary. Nevertheless, in an extreme case, when, perhaps, the vital spark is nearly extinguished, a little warm wine, brandy, or any other cordial, is allowable. This is the only case in

which the practice is justifiable. He further spoke of the use of emetics; for it would appear that some observing vomiting usually to occur early, were led to prescribe them: the practice could not be too strongly reprobated. They occasioned great determination to the head, and in that way proved hurtful; and, as sometimes happens, if a small laceration of the brain exist, they would certainly lead to internal hæmorrhage, and thus bring on pressure. Warm clothes in the first instance; bleeding, according to circumstances after rallying; calomel and tartar emetic, occasional purgatives, and keeping the head cool, generally speaking, constitute the whole treatment. Whenever the symptoms begin to yield the bleeding must be used sparingly. Blisters are often called for. In the case of the girl, the discharge from the sore acted the part of a counter irritant.

Yesterday Mr. Stirling operated on a very bad case of polypus of the antrum. The disease was of eighteen months' duration. Eight months ago bleedings took place from the nostril; and a month after, the disease began to make its way forwards through the cheek. The particulars and result will be sent you.

Your obedient servant,

VERITAS.

MR. GUTHRIE'S LECTURES.

In addition to the very valuable lectures which it has been our pride and our pleasure to give to our readers, we this week have commenced a course, now being delivered by Mr. Guthrie, on those important diseases which affect the urinary organs. The high and well deserved reputation of Mr. Guthrie will be still increased by the perusal of the result of his study and of his practical experience. Few men are better able to convey their ideas in a clear and perspicuous manner, and none can excel him in the exercise of a sound and mature judgment. It will thus be seen we spare neither pains nor expense to render our Journal worthy the support we invariably have received.

BOOKS.

The Black Death in the Fourteenth Century. By J. F. C. Hecker, M. D., &c., &c. Translated from the German, by B. G. Babington, M. D. 12mo. pp. 205. London: 1833. A. Schloss, 109, Strand.

An excellent account of the pestilence of 1348, and one, like De Foe's History of the Plague, that will interest, though terrify, the general reader.

Succinct Practical Observations on the Effects of Blood-Letting, &c., with Observations on Visceral Inflammation after Parturition. By Edward Geohegan, M. R. C. S. I., &c., &c. 8vo. pp. 100. London: 1833. Longman and Co.

The Medico-Chirurgical Review. April. Edited by James Johnson, M.D., Physician Extraordinary to the King, &c.

The Edinburgh Medical and Surgical Journal for April.

The Glasgow Medical Journal for January and April.

The American Journal of the Medical Sciences for February.

CORRESPONDENTS.

Several Communications have been received, many of which are perfectly illegible, and therefore useless. We request our friends will have the goodness to write plainly, for we have no time to lose hours correcting communications for the press. Printers find medical manuscripts as difficult to set in type as if they were in a dead language, on account of technical phrases. Most of our friends write in a hurry, and imagine, because we can decypher their productions, that printers, who have no knowledge of medicine, can do the same.

H. B.—This writer is no judge of the matter. A page of what he condemns is worth a dozen such articles as he praises.

Several articles against the College of Physicians are under consideration.

Dr. S.—We shall ascertain the practicability of the matter, and announce it in our next.

Medicus.—An answer is contained to our leading article of this day.

Amount of Subscriptions already received in aid of Dr. Ryan . .	£223	18	0
F. R. Parslow, Esq. Eaton-square .	0	10	6
— Perry, Esq. Ebury-street . .	0	2	6
F. C. Laisne, Esq. Eaton-square .	0	2	6
Anonymous, per Messrs. Renshaw and Rush	0	2	6

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 65. SATURDAY, APRIL 27, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXXIII., DELIVERED DEC. 19, 1832.

Gentlemen,—I mentioned on Monday evening, that, in the treatment of the bites of venomous serpents, there are two principal indications; the first is, to take measures for preventing the entrance of the poison into the system; and the second is, to endeavour to counteract the effects of the poison, in the event of its introduction into the constitution. I explained several plans for the fulfilment of the first indication, namely, the prompt *excision* of the part bitten, and the removal, along with it, of the poison which it contains; secondly, the application of *caustic* or the actual *cautery* to the part, by which its textures are destroyed, and the virus may perhaps be rendered inert; thirdly, the application of a *ligature* or *tourniquet* above the wound; and, lastly, *suction*, which, according to the experiments of Sir David Barry, appears to possess a degree of efficacy fully justifying the repute which it had in ancient times; for he found, that suction, performed by means of cupping-glasses, by removing the pressure of the atmosphere, suspended the process of absorption in the part, and actually prevented the poison in the wound from producing any effect whatever on the system at large. But, besides these plans, certain applications have frequently been proposed, on the supposition of their having a specific effect in destroying or neutralising the virus, as, for instance, *olive oil*, the *liquor ammoniæ subcarbonatis*, and *l'eau de luce*, a preparation very similar to the *spiritus ammoniæ succinatus*. However, the notion, that these articles really possess a specific power in neutralising the venom of serpents, is now nearly given up; at all events, many experiments, made some time ago in France, by Hunaud and Géoffroi, led to the conclusion, that the applications, which I have enumerated, had no specific virtue in rendering the poison less capable of producing violent effects.

With respect to the second indication, gentlemen, namely, that of attempting to counteract the effects of the poison after it has actually been introduced into the system, the question may be put, whether we possess any medicine or plan of treatment that will have such efficacy after the poison has begun to produce its usual effects? This is a very doubtful matter. The remedies, which have acquired the highest reputation in the fulfilment of this second indication, are *ammonia* and *arsenic*, for the *eau de luce* is, in fact, a preparation of ammonia, as I have already intimated. The internal administration of ammonia was formerly regarded as a sure method of counteracting the effects of the poison of serpents, and, with this view, the medicine was given very freely. It seems, indeed, to be well calculated to prevent the sudden and alarming prostration of the vital powers, so frequently coming on after the bites of the more venomous snakes: for this purpose, you may give it in very large doses; as, it is well known, that persons, who have been bitten by venomous animals, and are under the influence of their venom, may take with impunity some of the most powerful medicines, in doses which would kill a person in health. I shall hereafter have to notice the same fact, as exemplified in tetanus and hydrophobia; you might, therefore, give a patient threatened with, or suffering under collapse from the bite of a serpent, ʒj. of the strong spirit of ammonia every hour, or even every half hour, properly diluted. Arsenic is another medicine, deserving of trial, for the prevention and relief of the constitutional disturbance likely to follow the bites of snakes. The evidence of its usefulness is such as fully to justify the experiment. From a paper, published in the Medico-Chirurgical Transactions of London, by Mr. Ireland, an army surgeon, it appears, that a particularly venomous kind of snake in

St. Lucia (the *coluber coronatus* of Linnæus) frequently bit the soldiers stationed in that island, many of whom died under the common treatment. Mr. Ireland was then tempted to try arsenic, which had been mentioned to him as the most active ingredient in the Tanjore pills, so celebrated in India for their virtue against the bites of serpents. As soon as an opportunity occurred, he gave ʒij. of the liquor arsenicalis every half hour, which dose, you know, contains about one grain of arsenic, enough to poison any person, whose constitution is not under the influence of some peculiar derangement; and he found, that the plan, bold as it was, succeeded in every instance in saving life, where it had been given in proper time. Besides giving strong doses of arsenic internally, he also employed purgative clysters, and, as soon as griping and pain came on, the arsenic was entirely discontinued. The suggestion of this practice I consider to be valuable, and entitled to the attention of every practitioner, called to a person bitten by any dangerous species of snake. The effects of the common adder, however, are hardly ever bad enough to require treatment of this description.

In South America, the plant *mikania guaco* is prescribed as an antidote for the bites of venomous serpents, being much confided in by the natives, and employed both externally and internally. I am not aware that it has gained any reputation in other parts of the world; and presume, therefore, that the accounts of its success, brought to us from the New World, must be a good deal exaggerated. Surely, if it possessed the virtue ascribed to it, some of the scientific surgeons in America would long since have furnished us with such particulars, as would have left no doubt about the matter. In all cases of poisoned wounds, there are circumstances very liable to cause deception about the efficacy of medicines; thus, the bites of common adders usually get well, either without any surgical assistance at all, or under simple antiphlogistic treatment. Then, you are to remember, gentlemen, that the activity of the poison of snakes in general varies in different seasons of the year, and in different climates, and that the danger of the bite depends a good deal on the full or empty state of the poison receptacles at the time of the bite. We have the authority of Professor Gibson, in confirmation of the fact, that even the bites of rattlesnakes are not always followed by dangerous consequences: he tells us, that, in the thinly peopled parts of the United States, where rattlesnakes abound, the people are often bitten by them, yet it is not in every instance that the wound is followed by serious consequences. These differences are explained by Dr. Gibson, by the consideration of circumstances, to which I have already drawn your notice, namely, the difference in the fulness of the poison bags, the difference in the degree of virulence of the poison in different periods of the year, especially its greater malignity in hot weather and in the procreating season of these reptiles. When the fang is introduced directly into a vein, the bite is observed to be in general soon fatal. When snakes bite several animals in succession, those first bitten commonly experience the most severe indisposition, and frequently die, sometimes with great rapidity, while others bitten after them have less illness, and generally recover. These facts are familiarly known, and explicable by the recollection, that the animals first bitten received more poison into their wounds than the others, in consequence of the capsules being then more completely charged with the poison than afterwards.

Some years ago, a carpenter in London was bitten in the hand by a rattlesnake, kept at an exhibition room in Piccadilly; he had been teazing the animal with his foot-rule, which fell into the cage; now, the snake had shown no disposition to bite him while he was annoying it with his rule through the wires, but the moment he attempted to take the rule out of the cage, the reptile darted at him, and bit his thumb and fore-finger. The consequence was, that, in ten or eleven hours, the whole limb, axilla, and shoulder became very cold and enormously swollen up to the neck; in fact, the surface of the whole body was much below the natural temperature. The swelling, you know, is produced by that kind of inflammation which is called diffuse inflammation of the cellular tissue, in which a prodigious quantity of serum is effused in the cellular membrane, and, when such inflammation follows the bite of a venomous snake, the cellular tissue generally becomes gangrenous. In this carpenter's case, blood was extravasated under the skin as far as the loins; and a large abscess formed on the outer side of the elbow, which discharged a pint of matter; the swelling also extended down his side, in the same way as is observed in poisoned wounds from other causes, as in those from dissection, in which the swelling sometimes reaches the thigh. He lived fifteen days after the bite, and died, seemingly more from the effects of the local mischief,—from the abscesses and gangrene,—than from the pernicious action of the virus on the system at large. As for the original wound, it had entirely healed before the patient died.

Quitting this subject, gentlemen, I next proceed to notice *rabies canina* or *hydrophobia*, which is produced by the bite of a mad dog or other rabid animal, and is certainly the most dangerous and uncontrollable of all the disorders brought on by the introduction of a poison into a wounded part. Some objections have been made to the terms *rabies canina* and *hydrophobia*, as applied to this disease, and to the first, I think very properly, because it must be absurd to apply the term *rabies* to a disease, in which the generality of patients are perfectly tranquil. The second denomination is often disapproved of, because *hydrophobia*, or the dread of water, does not come on till the second stage, and also because there are other diseases, in which the same aversion to

liquids is exemplified. However, as the dread of water is a very prominent symptom in the second stage of the disorder, I think that *hydrophobia* is a better name for the disorder than *rabies canina*, or the French expression *la rage*. In fact, the patients are not always furious and ungovernable, as this term would imply, but generally tranquil and rational to the last.

All the species of hydrophobia admit of being divided into two classes:—first, those which cannot be ascribed to the bite of a rabid animal, or to the application of the saliva of a rabid animal to a wound or an abraded surface; and secondly, all cases which are produced by one of these circumstances, either the insertion of the saliva into a wound, or its application to an abraded surface.

The first class of hydrophobic diseases is not strictly within my province. I may mention, however, that it comprises *symptomatic*, and *idiopathic* or *spontaneous* cases; the first division being merely a nervous affection, accompanying certain inflammatory and febrile disorders, in which a considerable dread of water is occasionally manifested by the patient. As for the real existence of *spontaneous* or *idiopathic* hydrophobia, this is a subject of dispute, and I think there is ample room for doubting the correctness of the doctrine, since the histories of most of the persons, from whose cases the inference of the existence of such a disease is drawn, cannot be depended upon. They were, in short, generally drunken irregular characters, and in the habit of lying about the streets in the night-time. Now persons of this description might have been bitten by rabid dogs, or some abraded part of the skin might have been licked by dogs labouring under rabies, though not known to be indisposed; and hence no recollection of the circumstance might have been retained. Dogs, in the early stages of rabies, are seldom prevented from going about as usual, and are even domesticated in families, and fondled by children and others, whose hands and faces they are permitted to lick. Now, should there be a slight pimple, or abrasion of the skin, this custom might lead to the communication of hydrophobia. The late Mrs. Duff lost her life from handling a favourite little dog, which was not suspected to be rabid. But, gentlemen, leaving the question about spontaneous hydrophobia to be settled by physicians, I proceed to the consideration of the form of the disorder, which originates from the introduction of a specific poison into a wound, or its application to an abraded part of the skin, which poison is contained in the saliva of a rabid dog, cat, fox, or, as happens on the Continent, in that of a rabid wolf.

It is sometimes asserted, that hydrophobia always originates in animals of the dog kind, and in no other animals, and especially that it never originates in animals of the cat species, though communicable to them by the bite of a rabid dog. But, gentlemen, this is an obscure point, about which as much dispute prevails as about the spontaneous origin of hydrophobia in the human subject. The indisposition may, however, be certainly transmitted from these animals, not only to the human subject, but to some other quadrupeds, and, as is alleged, even to birds, as, for instance, to the common fowl. Although animals of the dog and cat kind can communicate the disease to some other animals, it is not positively known, whether the herbivorous tribe can do so; though one case is related in Ashburner's Essay on Hydrophobia, where a fowl became rabid after having been inoculated with the saliva of a rabid ox; but I do not know whether this statement has received any confirmation from other quarters. In Hufeland's journal, an instance of hydrophobia that was occasioned by the bite of a badger, is recorded. Attempts have been made to ascertain whether man can propagate the disease to other animals; but no instance of such transmission of it was ever made out, until the year 1813, when Magendie and Breschet took some of the saliva of a man in the last stage of hydrophobia, and inoculated a dog with it, which became rabid on the eighteenth day after the inoculation, and bit two other dogs, one of which also became rabid, and died in thirty days. This seems, gentlemen, to be a strong fact in support of the opinion, that man may communicate the disease to other animals. There has never been an example of any human being in the hydrophobic state imparting the disorder to another human being, though some persons in this disease, now and then become so unmanageable as to bite those who are near them: I remember an instance in St. Bartholomew's Hospital, in which a medical man was bit by a patient who was labouring under hydrophobia, but no ill consequences ensued.

The wound, occasioned by the bite of a rabid animal, is not always followed by hydrophobia: this fact deserves your particular attention, because attempts are frequently made to convince the world, that there are certain specifics and nostrums for the prevention of hydrophobia. Of the numberless persons who are bitten by dogs undoubtedly rabid, only a very limited number suffer from hydrophobia. Dr. John Hunter, who published an excellent paper on this subject, gives a list of twenty persons who were bitten by the same mad dog, yet only one of the whole twenty was afterwards attacked by the disease. According to Dr. Hamilton's computations, it appears, on an average, that not more than one out of every sixteen or seventeen persons, bitten by animals certainly rabid, becomes affected. Perhaps, gentlemen, this calculation may be below the mark; and it undoubtedly is so, with regard to persons bitten by rabid wolves. On one occasion, in France, twenty-three persons were bitten by a rabid female wolf, and thirteen of them afterwards died of hy-

drophobia. In another instance, nine out of ten had a similar fate; and in a third example, in which twenty-four individuals were bitten by a wolf near Rochelle, eighteen died. It seems then that the bites of rabid wolves are extremely dangerous; a fact fully accounted for, as I conceive, by the circumstance of their teeth being larger and penetrating more deeply, than those of the generality of dogs. The depth, extent, and situation of the bite are evidently circumstances, which must materially influence the chance of the system becoming affected. Thus, bites on the hands or face, which are uncovered parts, are more dangerous than bites on other parts, which are covered by the clothes; because, in the latter examples, much of the poison is likely to be wiped off the teeth, before they penetrate the body, and hence there must be less chance of its being inserted in the wound.

Dogs appear to be more susceptible of the disease than the human species: one rabid dog bit four persons and twelve dogs; none of the former were attacked with hydrophobia, although they underwent no particular treatment, and merely had recourse to common means, which daily experience proves to be unentitled to any confidence; but every one of the dogs became rabid. The term *hydrophobia* is scarcely applicable to the disease, as it presents itself in dogs; for they can generally lap water, without difficulty, and are sometimes very greedy of it. As a surgeon, I have nothing to do with the diseases of dogs; but, with respect to rabies, as it occurs in these animals, we ought to be able to give the public more correct notions about the symptoms and proofs of its existence, than are generally entertained by persons out of the profession. For instance, rabid dogs will frequently lap water; yet their doing so is very generally fancied to amount to a satisfactory proof, that they are exempt from the disease. Now this is a serious mistake; for, as I have explained, they are for the most part fond of water, and lap it very eagerly. As for rabid wolves, when they are pursued, they will swim across wide and rapid rivers without the least hesitation or dread of water. Nor should it be imagined, that dogs are furious in the beginning of the disorder: at first, they are merely somewhat irritable; afterwards they will bite other dogs, and even men, if they happen to be in their way; but they will not commonly turn out of their course to do so. Under the influence of the disease, in its early stage, the habits of a dog undergo a considerable change; thus he becomes fond of picking up small objects on the ground, and will even devour his own excrement; his voice is altered, the tone of his bark is quite different from what it is in the healthy state, being affected, indeed, as much as the voice of a cholera patient. The same circumstance is observed in other rabid animals, especially sheep. As for the opinion, that dogs are more subject to hydrophobia in warm weather than at other times, it is a completely erroneous supposition; and this is so far from being the case, that heat has no concern in it at all; for, in Jamaica, in some parts of which the heat is sometimes very great, not a single instance of a mad dog occurred during the long space of forty years. Now, as rabid dogs were occasionally met with in winter, other credulous persons suggested another hypothesis, which was, that dogs became rabid in this season of the year because they could not always get water enough, in consequence of the frozen state of the ponds; but one fact is sufficient to refute these idle speculations: in France, gentlemen, a list was kept of all the dogs which became rabid in a certain year; and it was found, that the smallest number occurred in January and August, one the coldest, the other, the hottest month in the year. I think, then, we can attach no value to any explanations of the cause of the origin of rabies in dogs, founded upon the influence of either heat or cold.

In the human race, the interval, between the bite and the supervention of the disease, is different in different examples. The majority of individuals are attacked at some period between the thirtieth and fortieth day; and you may conclude, that the longer a person continues well after the latter period, the less chance is there of his ever suffering from the disease at all. From a list kept of a hundred and thirty-one cases, it appears that none was affected before the eleventh day after the bite, and only three before the eighteenth. You will find a few cases, reported by writers, where the interval between the period of the bite and the commencement of hydrophobia was as long as ten, twelve, twenty, and even thirty years; but these statements do not gain much belief, and few cautious reasoners will venture to give credit to any history, which represents the interval as having exceeded about a year and a half. This was the conclusion at which Dr. John Hunter arrived, after a great deal of careful investigation. The wound, inflicted by the bite of a rabid animal, generally heals as readily as other common wounds do; and, indeed, it is usually healed long before the hydrophobic symptoms commence, which, as I have already explained to you, do not frequently come on in less than five or six weeks after the bite. The wound will, of course, be mostly well before that period. When, however, the constitutional symptoms do begin before the wound is healed, the bitten part, instead of presenting healthy granulations and secreting good pus, has an inflamed and sloughy appearance, and the discharge, which is scanty, consists of an ill-conditioned thin sanious matter. At some indefinite period after the receipt of the bite, and occasionally long after it has healed, the patient feels a sharp pain in the part which was bitten; and such pain, if the wound should have been in the hand, extends particularly to the trapezius muscle, or to the side of the neck. In the meanwhile, the cicatrix, if the

part should have healed, swells, inflames, and sometimes suppurates, and discharges an ichorous fluid; but, in other instances, the part may not inflame at all, and the indisposition may come on without the patient experiencing any inconvenience in the situation of the previous bite. In different constitutions, the other symptoms also vary: in the beginning of the indisposition, or the *first stage*, there is generally great depression of the spirits, and an indescribable anxiety; sometimes a chill or rigor is one of the earliest occurrences; frequently the sleep is disturbed by frightful dreams or spasmodic twitches; the pulse is more frequent and strong than in health, and the nervous system more susceptible of impressions. In fact, all the external senses become more acute; the eyes, the pupils of which are full and open, cannot endure the light; the person courts the shade, or even conceals himself in a dark place; the most trivial noises agitate him; and in this first stage, though the thirst is increased, the appetite is lost. In some patients, such is the augmentation of sensibility on the surface of their bodies, that you cannot even touch their hair, without producing a violent convulsive agitation of the system. This fact was exemplified in one case seen by Magendie. The duration of the first stage is sometimes very short, and the form of it such as not always to raise a suspicion of the commencement of the terrible and fatal complaint which we are now considering. Some patients are indisposed not more than a day or two, but others five or six days, previously to the *second stage*, which commences with the manifestation of a dread of liquids. The sight of water, or any attempt to drink fluids, now brings on violent convulsive agitation of the muscular system, and such a feeling of suffocation, as those, endued with the greatest fortitude, cannot endure. These paroxysms of violent convulsive disturbance of the muscles, and the sense of suffocation which I have mentioned, are certainly the most prominent effects of the attempt to swallow, or even look at, liquids; but they may also be excited in hydrophobic patients by other causes, such as the opening or shutting of a window or door, a bright light, or the glare of a mirror. Some patients, though not able to swallow liquids, will swallow juicy fruits, if their outer surface be made quite dry before being offered to them. The influence of different sounds on hydrophobic patients is very curious: some of these unfortunate individuals can bear a great deal of noise, without inconvenience; but if the noise happen to be of a kind, which is associated with the idea of fluids, then excessive agitation is produced, and paroxysms of the greatest suffering are brought on. Few hydrophobic patients can bear the noise of a pump, or the clatter of cups and saucers, or the sound of earthenware.

Gentlemen, if you have an opportunity of seeing hydrophobia, you will find, that when the patients, by an extraordinary effort, do get any fluid down into the stomach, it is soon ejected again, together with a copious quantity of mucus and a greenish fluid. Another very distressing symptom is the production of a thick ropy slime about the fauces and throat, which is so tenacious as to be compared by the patient to birdlime; his constant endeavours to free his mouth and throat from this oppressive secretion keep his jaws in continual motion, and, as soon as he gets rid of one portion of it, another is formed, so that he has no respite from his sufferings. In the latter stage of hydrophobia, the pulse is hurried, the respiration laborious, the countenance anxious, and the features horribly contorted. Sometimes the patient is really furious and uncontrollable, though most frequently it is otherwise. He may be so unruly as to bite himself and others who are near him; but mostly he is quite rational and governable. A good deal of pain is generally felt in the epigastrium and chest; the patient is always constipated; but the urine is copious and high coloured.

With regard to the usual period of death from this disease, this is a point, gentlemen, particularly deserving of your attention, because the period of the disorder, at which death occurs, is what mainly distinguishes hydrophobia from some other affections, which are occasionally confounded with it. Now, I wish you to remember, that the patient seldom lives longer than four or six days from the commencement of the hydrophobic stage, and then the individual is either carried off by a general and violent convulsion, or he dies quietly in a state of complete exhaustion. This point you should especially recollect; for great pains have been taken to ascertain the time which patients usually survive after the supervention of the dread of fluids; and, you will find, that the most common period is from two to three days. In one case, under the care of Magendie, which was treated in a particular manner, namely, by the injection of water into the veins, the patient lived nine days, which was so unusual a circumstance, that hopes began to be entertained of a plan having been found out likely to cure the disease. Mr. Lawrence had a case that proved fatal in twenty-four hours: the patient, I think, was a child.

Between hydrophobia and tetanus, I believe, gentlemen, the following considerations will serve as a sufficient criterion. Tetanus always begins with a spasm of the muscles of the jaw, which remains firmly fixed; in hydrophobia, on the contrary, the jaw is constantly in motion, from the incessant efforts of the patient to get rid of that ropy viscid secretion to which I have already drawn your attention.

In hydrophobia, the muscles are not constantly rigid; they are sometimes relaxed; but, in tetanus, they are incessantly hard and rigid; the spasms may be, and indeed are, periodically increased in violence; but the muscles affected are never entirely relaxed.

In tetanus, though there may be difficulty of deglutition, there is rarely a positive aversion to fluids, or a dread of them, and the patient will remain a long time in a bath without any inconvenience; this is not the case in hydrophobia,—the very idea of being put into a bath would excite such commotion in the patient, as would probably soon destroy him.

The paroxysms of tetanus are neither excited nor increased by light; neither are they affected by the noise or sight of water; but, as you know, those of hydrophobia are violently increased by causes of this description.

Tetanus mostly comes on soon after the infliction of the wound, that is to say, within a few days; but hydrophobia does not usually begin until a considerable time has elapsed from the period of the bite.

Then, tetanus will come on after any kind of wound,—even after a surgical operation; but, as true hydrophobia can only be produced by the application of the saliva of a rabid animal, to an abrasion or wound, it must have been preceded by the bite of such an animal, or by the application of its saliva to an abraded portion of the surface of the body.

Gentlemen, I will go on with this subject to-morrow evening.

CLINICAL LECTURES

DELIVERED BY

DR. GRAVES, M.R.I.A.,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832-33.

Dry-cupping in various Diseases, when Venesection is dangerous — Bronchitis — Pneumonia — Value of tartarised Antimony in Croup—Sarsaparilla and Nitric Acid in Syphilis and other Diseases—Use of Acids and Alkalies in various Diseases—Albuminous Urine—Danger of Depletion in old Persons—Conclusion of the Session—Valedictory Address.

LECTURE XX., AND CONCLUDING ONE.

GENTLEMEN,—I begin this day's lecture with some observations on dry-cupping, of which you have witnessed the trial in two or three cases at present in hospital. Most of you, I presume, are aware that dry-cupping has been lately recommended to the notice of the profession in a very ingenious and valuable paper published by Mr. Roberton of London; and, as it is a subject deserving of serious and interesting investigation, involving many considerations of practical importance, it will be necessary to notice it briefly, and offer some hints respecting its applicability to various forms of disease.

Dry-cupping is a remedy not by any means of modern invention; it was known to Hippocrates and Aretæus; and, in succeeding times, among the nations of the European continent and in the British dominions it was very generally employed, and formerly enjoyed the reputation of being a very fashionable remedy. Of late, it has fallen very much into disrepute; it is now very seldom employed, though some persons still use it, in hospitals and public institutions, where clinical experiments are conducted on an extensive scale. Mr. Roberton has attempted to revive this practice, and has proved that dry-cupping is a very valuable remedy, possessed of curative powers shared by no other therapeutic agent, and capable of being applied with advantage where the ordinary means are perilous or inadmissible.

Some time ago, Mr. King, of Stephen's Green, related to me the particulars of a case which exhibited, in a very remarkable manner, the benefit derived from dry-cupping. It was a case of hysterical vomiting, in a lady, for which every known remedy had been tried without any favourable result, and which was completely arrested by the application of dry-cupping to the stomach and margins of the ribs. This may appear strange to you, and you may be inclined to ask, how is it that a change in the condition of the integuments of the abdomen can affect the stomach? In reply to this I would ask, in inflammation of the stomach, whether acute or chronic, why is it that the application of leeches to the integuments relieves the gastric affection? In the latter, the result is equally strange as in the former instance; the circulation of the stomach is totally distinct from that of the integuments, and yet we have no remedy so efficient in relieving gastric inflammation as leeches, applied to the integuments of the epigastrium. Taking away blood from the surface produces a change in the circulation of the internal organs; detaining blood in the integuments in the neighbourhood of any viscus, acts also on the internal circulation, and effects a corresponding change. Let us investigate this more minutely.

A cupping-glass is applied to some part of the body, and the air contained within it is exhausted by means of a syringe or by heat. In either case the integuments of the part are forced up into the glass by atmospheric pressure, so as to form a hillock, in which a considerable quantity of blood is detained, remaining in the capillaries of the part, and being, as it were, cut off from the general mass of the circulation. The experiments of Dr. Barry have proved the detention of blood in that portion of the integuments submitted to the action of the cupping-glass, and that the quantity so detained does not pass into the general circulation or partake in its changes. Now, if a given portion of skin has, in consequence of morbid action, an unusual quantity of blood thrown into it, and cupping-glasses are applied to the integuments in its vicinity, you draw off a great quantity of blood into the portion which you cup, and that part which presented an unusual quan-

tity, in consequence of morbid engorgement, may be, *pro tempore*, drained, and may, during the period of this application, make rapid progress towards health. The same observation holds good when you cup over an internal organ in a state of inflammation. You must be aware of the practice of tying arteries which go to tumours of various kinds, and that the application of the ligature has frequently proved successful in arresting the peculiar inflammatory process by which such morbid developments are accompanied. Now, cupping acts as a kind of temporary ligature on the vessels of the part to which the glass is applied, including even the capillaries; and it is in this way that it tends to prevent the absorption of poisons locally applied.

Having said so much about the application of cupping-glasses, their *modus operandi*, and their action as local applications, let us see how far the principle may be pushed, and also whether this mode may not be applicable to local affections alone, but also act on the general circulation in such a manner as to produce those effects which are commonly attained by different means. Dr. Arnott, in vol. i. p. 574, of his work on the "Elements of Physics," makes the following important observations on this subject:—"Reflection upon these circumstances led me to think that, in certain cases, the beneficial effects of blood-letting might be attainable by the simple means of extensive dry-cupping; that is to say, by diminishing the atmospherical pressure on a considerable part of the body, on the principle of the cupping-glass used very gently, and thus suddenly removing for a time, from about the heart, a quantity of blood, sufficient, by its absence, to produce faintness. The results of trial have been such as to give great interest to the inquiry; and the author's leisure will be devoted to the prosecution of it. An air-tight case of copper, or tin plate, being put upon a limb, and made air-tight by a leathern or other suitable collar, tied at the same time round its mouth and the limb—on part of the air being then extracted by a suitable syringe, in an instant the vessels all over the limb become gently distended with blood; and, as the blood is suddenly taken from the centre of the body, faintness is produced, just as by bleeding from a vein. The excess of blood may be detained in the limb as long as desired, for the circulation is not impeded. To produce a powerful effect with a slight diminution of pressure, more than one limb must be operated on at the same time." From this it appears, that if you take the whole arm or leg or thigh of a man and place it under this machine, then exhaust it of air, and detain one or two pounds of blood in the integuments, the same quantity is abstracted from the heart and general circulation, and the effect produced is the same as if you had suddenly drawn blood from the system to this amount. The strongest man will faint if you cup both legs. I think this view of the subject opens new ground in the field of practical medicine. You are all well aware of the effects, the truly beneficial and admirable effects of blood-letting, and you know also, that these depend not so much on the quantity of blood lost as on the impression produced on the general system. If we have to deal with an extensive and violent inflammation, we do not abstract blood by a minute opening, we make a large orifice, or we open a vein in both arms at the same time, we place the patient in an erect posture and endeavour to produce deliquium. It sometimes happens, that the patient faints from fear, or before any considerable quantity of blood has been lost, and this faintness, as Dr. Arnott remarks, answers as well as that which results from venesection. This I can also testify, for I have seen all the good effects of bleeding, produced by the terror with which the operation frequently inspires persons of delicate or nervous temperaments. Now, by the machinery before described, a machinery by no means complicated, you are able to produce with certainty, such a powerful effect on the general vascular system, as to obtain all the benefit derivable from general blood-letting. Dr. Arnott mentions another but more objectionable way of attaining the same purpose, and one which is inferior in efficiency to the mode detailed. If you apply a bandage pretty tightly over the upper part of a limb, suppose for instance round the thighs, so as to prevent the return of blood through the veins, and then put the legs into warm water, the quantity of blood detained in the lower extremities will be such as to make the patient faint. This mode may be useful on some occasions, but it is inferior to dry-cupping, and can only be applied to the extremities. There is another and very important point relative to the employment of dry-cupping, which stamps additional value on it from its applicability to cases calculated to excite much solicitude and anxiety in the mind of every practitioner. You have often seen cases of inflammation, in which our sole hope of safety, or even life, depends on checking the inflammatory process, when we stand doubting or perplexed, balancing the possibly fatal effect of blood-letting on a sinking frame, with the slower but, perhaps, more certainly calculated close of an inflammation, which attacks some vital organ, and affects the very sources of existence. If, in such circumstances, we could produce results similar to those which accompany venesection, would it not be a very important desideratum? Now, the employment of dry-cupping holds out to us a fair prospect of attaining this end, of cutting short a menacing inflammation in that particular state of constitution where blood-letting is a perilous experiment, and regulating the errors of morbid action without having recourse to the customary shock of sanguineous depletion. I do not know any better or more valuable auxiliary in the practice of medicine than this, or one which is capable of greater extension and improvement. There is not a single practitioner who

does not remember how often he has been forced to bleed, when he knew that he was doing so at the risk of his patient's constitution and life; there is no one who has not, on such occasions, anxiously sought some other means of accomplishing the same purpose; and, as this is promised by the employment of dry-cupping, I think this matter should become the subject of extensive clinical experiment, and that no time should be lost in proceeding to investigate the true properties of a remedy, which is likely to open a new era in medical practice. Cupping-glasses might be made of convenient shapes, for applying them along the inside or outside of the thigh or arm, and might be so large that, with the aid of a syringe, the intended effect could be produced in a few minutes. With regard to their operation in cases of local disease, I think we cannot extend their use too far. There are many cases of hysterical neuralgia, sometimes affecting the side, sometimes the spine, and other parts, which hitherto we have treated by bleeding, leeches, stupes, liniments, and blisters. Fomentations and liniments sometimes succeed in removing this affection, so do leeches, but frequently both fail, and we are obliged to blister, which often produces great irritation, without being attended by any decided benefit. Here it is very probable, that we would derive very great advantage from dry-cupping in the neighbourhood of the affected part. There is one form of this disease to which it is peculiarly applicable. The most annoying thing, perhaps, about which a medical man is consulted, are the head-aches of young ladies. These are varied and numerous beyond conception, generally connected with some menstrual irregularity and derangement of the intestinal canal, and forming a class of disorders which would require a good monograph more than any other I know of. Many practitioners get into disgrace with ladies on this account, and, as a natural consequence, with the community in general. Bleeding here is of very little use, and gives only a temporary relief, or even in many cases aggravates the existing symptoms. The best plan of treatment is to regulate the menstrual secretion, and attend to the state of the bowels. But I will say no more on this subject, for I might lecture on it without end. As to the head-ache, if you leech they get worse afterwards, if you apply cold lotions the same result; the best thing you can do, in my opinion, is to apply dry cupping-glasses to the back of the neck and between the shoulders *. Let us see what has dry-cupping done in those cases which have been treated with it in hospital. A man of the name of Ryan, who has been a long time in hospital, suffering from violent pains, produced partly by rheumatism and partly by neuralgia, complained of very severe attacks of pain in the lumbar region, lower part of the belly, and thighs, but particularly in the lumbar region, on one side of which the pain and tenderness was excessive. This man had been mercurialised and blistered, he had 100 leeches to the affected parts in eight different applications, he had been stuped repeatedly, he had all manner of liniments and internal remedies I could devise. He was certainly somewhat improved by this treatment, but not so much as I wished. Well, this man has received the most marked benefit and relief of his sufferings from dry-cupping over the seat of the disease.

Another man, named Eustace, who had sciatica, which was cured by acupuncture, and afterwards returned, experienced considerable advantage from this remedy. In the case of a woman above in the fever ward, labouring under bronchitis, we have observed an amelioration of the pectoral symptoms after the application of dry-cupping. It appears to me, that cases of pain and tenderness are not the only ones to which dry-cupping is applicable, but that we may employ it also with hopes of success in congestion of internal organs. Cupping over the chest, I think would diminish if not cut short the paroxysms of spasmodic asthma, of tussis senilis, and of the acute suffocative catarrh. In bronchitis with emphysema, it would relieve the congestions of the lungs, and lessen the dyspnœa; and in the violent suffocating bronchitis of children, soon after birth, it seems to be particularly valuable from its rapid effects. In the tremendous and fatal dyspnœa which accompanies this affection in children, bleeding and leeches are objectionable, from the danger attendant on them, and from their tedious operation, and are decidedly inferior to the prompt and efficacious agency of dry cupping, which is free from any danger. You will be convinced that I do not overrate the value and advantages of dry cupping, when you recollect the case of a man in the hospital, who has empyema of the left side of the chest. In this case, which will be spoken of by my colleague, Dr. Stokes, the whole of the cavity of the left pleura is filled with matter; the heart has been pushed to the right side, and the man breathes only through his right lung. Now this man got bronchitis in his only sound lung, and you can easily perceive what danger he was in. It is obvious, that in such cases, from the long duration of the disease, the immense quantity of pus in the pleural sac, and the weakness of the patient's constitution, bleeding could not be employed without much hazard. We had recourse to small doses of tartar emetic and extensive dry cupping over the chest. The result of this case, which I could not have treated so advantageously a fortnight ago, is very encouraging, for you have seen the relief this poor man obtained. It may seem to you that I am disposed to think too highly of a remedy,

* Dr. Graves has expressed his opinions on this subject more fully in a paper which will appear in the forthcoming number of the Dublin Medical Journal.

the properties of which are at present but little known; but, as I have stated to you before, its properties seem to be analogous to those of general and local bleeding, and it is of the utmost importance to investigate its effects thoroughly, and see if it is capable of the same application, and likely to be attended by similar results, or, if there be any differences in applicability, to know where the one and where the other may be employed with the greatest propriety and success.

You remember, gentlemen, a poor fellow, who was here some time back, labouring under inflammation of the left lung, the result, according to his statement, of a beating with a brass candlestick, inflicted by a female hand. Whatever might have been the cause, he had on admission all the symptoms of pneumonia; there was considerable pain in the left lung, and extensive hepatisation, and these, with the other phenomena of pneumonia, advanced with unusual rapidity for a day or two, when matters took a completely different turn. His stomach became very much affected, and he was seized with vomiting, which continued for two days without intermission, and finally proved to be cholera, genuine Indian or spasmodic cholera. The irritability of his stomach was extreme; he vomited night and day, rejecting almost instantly every substance he swallowed. He had some purging also, but it was trivial compared with the vomiting. The extremities soon assumed the peculiar blue appearance of the disease, and as there was no alleviation of his symptoms, and the case appeared so distinct and well marked, he was sent to the cholera hospital. What I wish to observe is, that when the disease was established, and a great quantity of the fluids of the body drained away, the hepatisation of the lung and other pulmonary symptoms disappeared. The whole disease of the lung was removed in less than thirty-six hours, a rapidity which I have never before seen equalled. We examined him before his removal with the greatest accuracy, and could not detect any vestige of a disease which two days previously had been so violent and extensive. What practical inference can we deduce from this fact? You see here inflammation and congestion of the lung not only relieved but completely cured by the discharge of a large quantity of fluid from the intestinal canal, and we have a proof of the value of counter-irritation applied to the mucous membrane of the stomach and bowels in disease of the lungs. We should take care, however, not to push this principle too far, and employ a powerful remedial agent on all occasions with proper caution. It appears to me that the general inference we can draw from the circumstances of this case is, that tartar emetic and other measures, whose operation imitates cholera, are of the highest possible value in treating cases of pulmonary disease. The question is, whether tartar emetic produces its particular effect on the lungs through the medium of the system generally, or by means of its action on the stomach and intestines. I believe that it is sometimes in one way and sometimes in the other; tartar emetic frequently proves serviceable without affecting the stomach and bowels at all; the same thing takes place when it proves an irritant to these organs. The employment of tartar emetic in various forms of chest disease has been tried in this hospital very extensively within the last few years; and it is with one of the surgeons attached to this institution, Mr. Porter, that the valuable treatment of croup by this remedy originated. My colleague and I have repeatedly seen cases of croup yield to the administration of tartar emetic and bleeding from the jugular vein, and I am fully convinced of its value from considerable experience. The effects of this medicine you perceive have some light thrown on them by the case before us, of complete removal of pulmonary inflammation by the supervention of cholera, and it was for this reason I introduced the subject to your notice.

I wish now to make a few observations on a remedy long known to the profession, but one which deserves to be noticed for its beneficial effects; I allude to the use of sarsaparilla and nitric acid in cases of secondary syphilis with red and relaxed sore throat, which I have also found extremely useful in chronic sore throat without syphilis. In the latter case, there is great relaxation, accompanied by redness, commencing at the uvula, and extending all over the fauces, and sometimes to the epiglottis, so as to produce a troublesome hoarseness. The uvula also is frequently relaxed, and its point coming into contact with the root of the tongue gives rise to tickling cough and tendency to vomit. To those cases I have extended the use of sarsaparilla and nitric acid, and have found them attended by very signal advantage. I think, also, that by making this remedy more general and applying it to cases in which there is not the slightest existence of a venereal taint we will do good; for there is, in consequence of its limited use, a degree of suspicion generally attached to its employment; and this we should endeavour to remove, as it forms an objection to one of our most valuable combinations. Nitric acid and sarsaparilla form one of the best remedies we are in possession of for treating successfully that cachectic state of constitution which arises from the abuse of mercury, or from many other causes. While on this subject we may observe, that at the commencement of the present session I threw out some hints respecting the administration of acids and alkalies in dyspepsia, diseases of the skin, and chronic coughs; and mentioned, that some persons gave acids, others alkalies, for the same class of disorders. What I have to remark is, that in cases of periostitic pains we have derived most benefit here from using acids; but that

in cases of arthritic inflammation, more advantage has attended the employment of alkalies. I believe we are very much in the dark with respect to the proper exhibition of acids and alkalies, and the peculiar cases to which they are separately adapted. I had lately under my care a gentleman labouring under skin disease, who had tried acids and various other remedies without any benefit, and had been ordered to the country to try the effect of change of air. While there, however, he got worse, and wrote to me, earnestly requesting of me to try and send him something likely to give him relief. I ordered him to take ten drops of the liquor kali caust. every five hours, so as to take forty or fifty drops in the course of the day; and in a short time afterward he informed me that he never got such an admirable remedy, for it had cured him completely. This is one case which shows the superior efficacy of alkalies in the treatment of skin disease.

I have a few more observations to make before I conclude. You are aware of the discussions on the subject of albuminous urine, and that it has been remarked as a phenomenon of dropsy, showing the existence of the disease at its very commencement, or even announcing it before it appears. This circumstance has been dwelt on in a late number of the Edinburgh Medical and Surgical Journal; and whether occurring during the existence of dropsy or before it, it has been found to be one of the most unequivocal symptoms of the disease. In a case of disease of the heart, you can foretell the occurrence of dropsy from the presence of albumen in the urine, for the urine becomes albuminous before the dropsical effusion appears. This is a curious fact, and deserving of remembrance. When attending any case in which you are led to suspect the termination of the complaint in dropsy, you should examine the urine, and then you will be able to announce to the family the expected event before its occurrence, and in this way obtain credit for skill and sagacity. I do not think this circumstance of albumen being found in the urine has any dependence or connexion with inflammation of the kidneys; and I believe Drs. Elliotson and Mackintosh have sufficiently refuted such an opinion in their able replies to Dr. Gregory on this subject. I may mention one curious circumstance in connexion with this peculiarity: I attended some time since a gentleman, from a consideration of whose symptoms I was induced to make an unfavourable prediction, and announce the approach of dropsy; in this case there was what I had never seen before, spontaneous emphysema of the integuments of the belly.

One word more, and I have done. Several cases have lately come under my notice, showing that we should be very careful in coming to any decision as to bleeding in the case of old persons, derived from a consideration of the state of the pulse. There is a great difference between the pulse of young and old persons; in many of the latter we find, that though frequently near the close of existence, the pulse is found to strike its beats like a strong vibrating cord, seeming to imply a great power of circulation, and indicating the necessity of bleeding. Such was the pulse of the late Mr. Henthorn about an hour before his death, and such I have found, about a week ago, in a gentleman of seventy-seven years of age, since dead. You cannot remember this fact too well. I do not know exactly on what this apparent vigour of pulse depends. I call it *the pulse of the last century*, that is, it occurs in persons who were young in the eighteenth century. Whether it arises from a change in the parietes of the vessels, and a diminution of the quantity of blood which passes through them, I know not; but I can conceive how a coincidence of these two circumstances might produce it. When you are called to attend a person of very advanced age, labouring under some inflammatory affection which appears to require bleeding, you should do so with very great caution, and not trust to this apparent strength of pulse.

I have done now, the session is over, and I must conclude. It was usual in my time to spend five or ten minutes at the termination of a closing lecture in flattering the class and indulging in a complimentary strain. I do not mean to do this. I cannot say that you have been idle; but, gentlemen, we cannot be too industrious. Never was there a time when the career of science was so brilliant and so rapid as the present: there never was a time when the inducements were so great to explore, investigate, and treasure up the numerous and deeply interesting mass of facts for which science is indebted to modern discovery. The day is gone by when quackery could impose upon the credulous, and impudence assume the garb of merit; a century ago it was very easy to keep up with the scanty and slow-paced intelligence of the age; men became acquainted with certain opinions which they regarded as fixed and immutable, and here their pursuit of science was abandoned. In our times the field of science is so broad and extensive, and its increase on every side so rapid and so various, that he who wishes not to be left completely behind, must employ all his energies with continuous and unremitting assiduity. Some young gentlemen here have exerted themselves in such a manner as to deserve very great credit. Of this, my colleague and I have taken notes; and it is our intention, at the end of the session, to confer premiums on those who appear to us to have justly merited them.

REPORT OF THE EFFECTS OF THE ACID FUMIGATION

Tried in Scotland, during the prevalence of the Epidemic Cholera; and of the Causes which prevented it from being every where known and adopted, &c.

[Our readers will recollect the able article on the Extermination of Cholera, Fevers, and all Contagious Diseases, by Euphemizon, published in vol. ii. No. 39, 1832, which was from the pen of Dr. Sanders of Edinburgh. The following important report confirms all the positions taken by that gentleman in his former communication, and will prove deeply instructive and highly beneficial in the practice of medicine. It reflects great credit upon the author as a physician of strong mind, sound judgment, and great experience. We know him to be one who thinks for himself; and his views of Spinal Pathology are now generally adopted. The spinal marrow is no longer forgotten in the animal economy; and our Edinburgh contemporary must feel pride and gratification in witnessing the universal adoption of his opinions. The present paper is replete with valuable information, confirmed by faithful and extensive observation, and will prove highly efficacious in preventing the ravages of all contagious diseases.—Eds.]

TO THE

RIGHT HON. VISCOUNT MELBOURNE,

Secretary for the Home Department, &c.

My Lord,—The Asiatic cholera has not entirely disappeared; to act, then, as if it could never resume its diffusive propensity, were a signal instance of fatuous improvidence. On the contrary, all the facts which reason, observation, experiment, and experience have approved, should be collected, and every man who can add to the stock, ought, without delay, to furnish his contribution.

I have devoted, as you know, much time to this investigation. In my progress, I could not avoid adverting to the state of the medical profession, and to the dispositions of the Boards of Health. I request it, however, to be recollected, that in whatever I say, or may have said, it is not persons, but principles, that are my object.

It would be great injustice, indeed, to pronounce a universal anathema; among us there are medical men who adorn human nature; on the very question which engages us, not a few have maintained that unbending integrity which is innate in the true cultivators of science.

In my letter of 16th Nov. 1831, I presented to the London Central Board what I believed to be a correct induction from all that had been ascertained in relation to this disease. I thence predicted, that the authoritative regulations for its treatment would prove not merely abortive, but injurious; I affirmed, that the dominant notion of its personal infection, or contagion, had no other basis than prejudice; that its cause was a peculiar intemperies of the atmosphere; that unless this were corrected, skill could do nothing to impede its career, and but very little to assuage its mortal fury; and, finally, to attain this end, I suggested fumigation as the only eligible means.

On 5th Jan. 1832, when the horrific gorgon first appeared here, I proposed to our Board, and also that of London, a specific fumigation; pointed out the materials, and explained the method and manner of using them. Both Boards, at least *ostensibly*, treated the proposal with the same neglect.

Besides, I implored them to re-examine all the information which they had obtained, or might obtain, respecting the cholera, and to subject all their own opinions, doctrines, and prescriptions, to the most scrupulous revision: they would not; and, that they would not, is deplored by millions, who depended upon agriculture and commerce, together with a countless host of widows and orphans, thereby doomed to pass their lives in penury and desolation.

Meanwhile, every opinion which I offered has been verified, every prediction fulfilled, every statement confirmed; and, what is of more importance still, the efficiency of that system for the annihilating of the disease, which I proposed, has been triumphantly demonstrated. These things will satisfy you, that I am not disposed to obtrude myself inconsiderately; and ensure me, I trust, on the present occasion, a favourable reception.

The plan of operations ordered by those whose business it was to provide for the public safety, at the public expense, altogether failed, and the people could not see, without dread, the uncontrolled sway of the destroyer. They expected other means to be devised, and were surprised that any rational suggestion should not meet with earnest attention. When any sentiment becomes general, some persons always rise up of sufficient spirit to give it animation and action; consequently, *the fumigation was put to* THE TEST, *and the* VERY FIRST TRIALS SUCCEEDED *to admiration*. Surprise, then, gave place to indignation, when the opposition to the new process increased in proportion to the accumulating evidence of its utility. At this time it became necessary to counteract the exertions, cunningly and hypocritically made to conceal these experiments, and thus to deprive mankind of an invaluable addition to the means of self-preservation. The best method seemed to be, to bring, as it were, into a focus, all the information extant, with regard to the purification or melioration of the atmosphere. With this design an essay was to be composed, comprising, succinctly, every thing deemed worthy of being communicated, as follows:—

1st. A view of those phenomena, which taught the propriety of endeavouring, on special occasions, to improve the condition of the surrounding air.

2nd. An account of the various means adopted for this purpose from the earliest ages, among which were conspicuous the fumigations to destroy pestilential epidemics.

3rd. The introduction, within the last fifty years, of acid fumigations.

4th. Founded upon the information thus acquired, a plan of fumigation for the extermination or annihilation of the Asiatic cholera, which plan was already, in no small degree, corroborated by the recent experiments with the chlorine gas.

This undertaking being finished, we resolved that it should, if possible, be made available through the supreme authority; therefore, in the form of a letter, signed "EUPHEMIZON," it was, in October last, addressed and sent to your Lordship, as Secretary for the Home Department, to whom I have now the honour to relate the continuation of these experiments, performed upon such a scale, in such a manner, and with such results, as will convince the most sceptical, that when the distemperature shall return, it may be promptly and for ever extinguished.

The experiments were made from the beginning of January to the end of November, 1832. The cities, towns, and villages, or the localities in each, which were the scene of operations, are specified.

When not otherwise qualified, *fumigation* and *to fumigate*, here refer to the evolution of THE CHLORINE GAS; and all words implying disease, to the ASIATIC CHOLERA.

When Boards of Health are mentioned, two are meant exclusively; viz. the one called the London Central, and the other called the Edinburgh Board; and my remarks are only applicable to their leading or influential medical members.

EDINBURGH. *Adam-street.*—Here, January 2, 1832, occurred the first case; the patient collapsed twice or thrice, and was ultimately restored to health. The building is capacious, of six floors, with poor families on each. The fumigation was kept up during four weeks; no other case was detected in the immediate neighbourhood.

Parkside-street.—House of five floors, with families on each. The patient collapsed and recovered; the same means were used with the same result.

Nicolson-street, Reikie's-court.—An area surrounded with buildings densely inhabited, and containing the workshops of William Miller, Esq., type-founder to his Majesty. When the malady was approaching his premises, he ordered the chlorine gas to be raised in the open court. The common people resemble the ordinary medical practitioners—they will not deviate from their usual routine. Mr. Miller left town; his workmen neglected the process; several of them, and of those in the adjacent houses, were seized; deaths ensued; the fumigation was resumed, and persevered in for about five weeks; during this time one person died;—the eradication was permanent.

Leith-street, Catherine-street, Union-place, Haddington-place, &c.—The whole of this range, extending from Edinburgh nearly halfway to Leith, was cleared almost as soon as contaminated. On 9th September, in a dwelling at the top of a very high and large building, 15, *Catherine-street*, a man exhibited very suspicious symptoms; the chlorine exhalation occupied his apartments instantly, and without intermission, while necessary. This patient in a short time returned to business; his numerous family received no injury. I advised that the tenement should be fumigated from below, and saw the operation begun; but returning in a few days, I learned that it had not been continued; in a day or two more, several of the tenants or occupiers were seized, and three or four of them perished; now the fumigation did its duty; for which we are indebted to William Child, Esq., senior magistrate.

This is given as one instance out of many, proving that the fumigating of an upper floor protects only that part; but if the gas is disengaged from below, it soon diffuses itself throughout the building, removing the cause and the malady at the same time.

Union-place.—In No. 16, a property belonging to the Commercial Bank, on 19th September, Mr. George Thomson, gun-maker to His Majesty, died. His wife and two of his servants had the characteristic symptoms. The fumigation was vigorously carried on for several weeks. The three patients soon got well; this and the contiguous buildings remained intact.

High-street.—In October there were two deaths at the Netherbow, in a tenement forming the north boundary of a square of houses belonging to Messrs. Oliver and Boyd, where they have the most extensive printing and bookbinding establishment in Scotland. These gentlemen had the building fumigated a long time from below, and also in the open court they kept a barrel from which the gas was incessantly ascending. The tenement here mentioned is of seven floors, and contains twenty-one or twenty-two poor families: one man, who fled out of it, died; the rest were preserved.

Shakspeare-square was infested; not a few deaths were reported. In the Theatre-Royal, which occupies its centre, immense volumes of chlorine gas were formed twice a-week: within eight days from the commencement of the fumigation, the cholera bade this quarter a final adieu.

Grass-market and West-bow, probably the most populous district of our city, was considered the stronghold of the enemy; it had never wanted cases and deaths, from the month of February till about the middle of

October, when 14*l.* were collected, with which were purchased tar barrels, common salt, and sulphuric acid. The houses were filled with the chlorine gas, and the barrels were burned in the open spaces during twelve or fourteen days. At the beginning of the fumigation one person died, and just when it had ended, two persons came hither unwell, and died; thus the evil terminated. So that the Board, expending 500*l.* or 600*l.* per week, did not accomplish in nine months what the inhabitants effected in a few days, at the expense of 14*l.*

Canongate, a vassal burgh, and large part of the ancient capital. Here the fumigations were equally successful; and also in *Canal-street* and *Rose-street*, where there was one case, but no death, after the process began.

Five miles east of Edinburgh, is the town of MUSSELBURGH, containing between 7000 and 8000 inhabitants. From the beginning of the year, the disease committed great havock in that part of it called *Fisherrow*; about the middle of February, at the request of Henry Raeburn, Esq., of St Bernards, the fumigation was there set into full operation in the streets and lanes. The calamity was forthwith mitigated, and in less than a week extirpated *.

Portobello, almost a suburb of Edinburgh, populous, about a mile long, and half a mile broad. Here, towards the middle of February, in a dirty lane called Pipe-street, there were many sick, and in one afternoon, seven deaths. The fumigation was now resorted to, and continued in the open air, and within the houses, for three days; the sick all recovered; but after a cessation of nearly three weeks, the disease reappeared in different parts. Many of the inhabitants used the gas, each in his own house, and all of these enjoyed exemption. The fumigation was undertaken at the request, and partly, I believe, at the expense of John Baxter, Esq., and this gentleman himself gave an admirable lesson. In a piece of ground behind his residence, and nearly in the centre of his property, which is of considerable extent, he kept the fumes of chlorine exhaling night and day, as long as the malady prevailed. Close by his gardens there are hovels of the lowest class, and a little farther off, there are very handsome streets; in all this division never even one case occurred.

DUNFERMLINE, a royal burgh and chief town in the western part of Fife, situate on an extensive eminence, stretching from east to west, about 270 feet above the level of the sea, and containing from 8000 to 10,000 inhabitants, was attacked on 3rd September; the onset was fierce, after which the new cases varied in number from 10 to 18 daily, till the 23rd October, when the chlorine gas fumigation was put into practice in all the streets, lanes, and avenues, within and round the town; on the very first day, the number of new cases were reduced to six, and in five days the plague was annihilated. Total number of cases from 3rd September, 462; deaths 163.

One thing which occurred here merits notice. A gentleman who has a very numerous family, as soon as the disease threatened, had recourse to the acid fumigation. His house is part of a continuous line of buildings, and in the dwellings next his, on either side, there were deaths; one morning at his own door he stood and counted thirteen different windows admitting light to apartments in each of which there was one "Cholera corpse." He persisted in the use of the fumigation until the danger was over, and not one within his domicile ever suffered in the slightest degree.

Gorgie, a small village a little more than a mile west of Edinburgh, was attacked towards the end of September. Tar barrels were burned, but the disease went on till towards the end of November. At this time there happened four deaths, and many persons had the symptoms of the first stage. John Cox, Esq., one of the members of our town council, generously supplied common salt and sulphuric acid in abundance; a cloud of muriatic acid gas enveloped the village seven or eight successive days; there were no more deaths; the disease vanished.

These examples establish incontestably the power of fumigation, but it ought to be known, that from the time of the experiment made in Fisherrow, the process was more or less employed throughout this country, and that, from this time also, if we reflect how widely the contamination was diffused, as shown by the number of places assailed, we shall find, that in no nation of the world has this scourge been attended with so little fatality as in Scotland.

At length it became the common opinion, that much evil might have been averted, had the fumigation been adopted when first proposed, or even when its disinfecting properties were first evinced; hence the obstinate resistance of the authorities was a theme of loud animadversion and complaint, when a letter signed Euphemizon appeared in the Caledonian Mercury, assisted by a few admonitions in the clear and animated style of its learned and able editor. Silence could no longer be maintained; the Board was put upon its defence, and consequently there appeared in the Courant, 22nd October, 1832, the following exculpatory evidence, which was everywhere received *cum notâ*.

"In reference to a notice which appeared in the Caledonian Mercury of Saturday last, 'On the Extermination and Annihilation of Cholera,' we have been requested to state, that the chloride of lime, which has been so extensively employed by the Board of Health, has been invariably used along with sulphuric acid, for the purpose of disengaging the oxy-

* This Burgh was rescued at the expense of 21*l.*, the half of which was paid by Mr. Raeburn.

muriatic acid or chlorine gas, which is recommended as the proper means of fumigation in the letter to which that notice refers. This mode of acid fumigation has been employed by the Board from the very commencement of the epidemic, not only *over the infected parts of the town generally*, but regularly in every room, house, passage, and common stair, in which cases have occurred. A set of men, at present amounting to eight, have been employed for the purpose exclusively since the month of January last, and in no instance, that has come to the knowledge of the Board, have these means been neglected. We regret to find, however, that although this extensive system of fumigation has probably contributed, as much as could reasonably be expected, to restrain the diffusion of cholera in this city, the fact is, that the disease has in many instances continued its ravages in the same localities, and even in the same stairs, and the same houses, in which this acid fumigation had been carefully and repeatedly employed."

At this statement every person was astonished; "*over the infected parts of the town generally*" forsooth! no one had ever smelled the Board's chlorine gas fumigations. It was well understood that our systems were not the same either in theory or in practice. I inculcated the melioration of the atmosphere; they the intercepting of infection from clothes and persons. My operations were chiefly in the open air; theirs in confined apartments. Mine were as notorious as the light of day, and the effects as obvious; theirs were never heard of, and the effects were imperceptible. Every one said, if the Board adopted the gaseous fumigation, why was its author, in their name, loaded with opprobrious epithets? If they found it useful, as they admit, why did they never give advice or directions relative to it, in any of their instructions or other public documents? If they think this contrivance of theirs will allay discontent, they are egregiously mistaken; it will only excite contempt and derision. Yet, as we shall see, there was something in the story; and a very good commentary on the procedure of our Board, in this particular, may be read in the Sanitary Circular, issued by the London or Central Board, on 9th August, 1832, in which among other things it is enjoined, "That the room or apartment in which he (the patient) may have been attacked, and from which he may have been removed, should be purified by fumigation by heated sulphuric acid and common salt with black oxide of manganese." Both Boards were thus moving with cautious step and slow towards the very goal, whence I entreated them to start, twelve months before.

I was quite aware, that the effects in Adam-street had not been overlooked, for from this time the servants of the Board did disengage *quietly* the chlorine fumes in the apartments of the dying and the dead; and an advertisement, that the Board had succeeded beyond expectation in repressing the disease, showed me, that they believed they had made a great acquisition; but it is not to be imagined, that, lest they should seem to have taken any hint from me, they kept to themselves what that acquisition was. Good men confer benefits in secret, and nothing hurts their ingenuous modesty so much as vulgar applause.

Let both Boards then have their due, "nothing extenuate," for their means, they say, were slender; "nor set down aught in malice," for that would be depriving them of their own; we only aver, that they did not practise the fumigation in the open streets and lanes, and in the interior of the infected houses, as was done at Fisherrow, and the other places here enumerated; the friends of the Board will not assert that this was done, but if they should, we have just to state, that *in the very localities in which this body, with its numerous assistants, had during many dreary months wasted, I would not say the money of our citizens, but their own labour, the pestilence never resisted the proper method even one week.*

We remarked, "that the Boards were moving towards the goal, whence we had wished them to start;" we may now announce, that in consequence of *accelerating command*, the London Board has arrived at the very point; they declare, though with equivocal circumlocution, THAT THE CHOLERA IS NOT CONTAGIOUS!

This act of abjuration was expedited shortly after I was honoured with the thanks of your Lordship for the letter explaining the system of fumigation. To impart an idea of the unexpected event, the following extracts are inserted from a letter of 6th November, 1832, which this Board issued *privately*, and "submitted," as they say, "*by the desire of the Lords of the Council*, to the favourable consideration of the governors of the several hospitals in London.

"*That it has been proved, that cholera was not found to spread amongst the other patients in the public hospitals, in which some cases of that disease were treated during the late epidemic.*

"That, under these circumstances, it becomes matter of consideration, important to the public health, whether sporadic cases of cholera might not be admitted into the public hospitals, in the same manner as cases of any other disease.

"The Central Board of Health, therefore, under the full conviction, that the cleanliness, ventilation, and general good arrangements established in the public hospitals of the metropolis, are found sufficient to prevent the spread of typhus fever, recommend the adoption of the above suggestions, with reference to sporadic cases of cholera; a measure in favour of which humanity would plead irresistibly, in the event of any cases of that disease occurring, and being carried to the door of the hospital, as the only place of refuge,

after the breaking up of the local Boards of Health and their parish hospitals *.

"(Signed) W. Maclean, *Sec.*"

"Every body in nature," says Newton, "maintains the state in which it is, till it be driven from it by a superior force," and he might have added, that this force is often the sum of repeated impulses. Here we have a law not more powerful in the physical than in the intellectual world; this is a wise and a natural cause, which, by rendering the mind averse from the ready admission of new ideas, precludes wild innovation; but truth would soon overcome, were causes of a different kind not called into action; the sinister passions, avarice, selfishness, and envy are roused, which, like the demons of antiquity, assume the form and array of virtues, professedly, to warn mortals against the vice of speculation, but really, to overwhelm every man who consecrates his existence to the acquisition and extension of knowledge; this is the most formidable obstacle to the well-being of society.

Whichever way we turn, amidst the busy scenes of life, we see and feel this demoralisation, and in no class of men is it more evident, or more to be deprecated, than in that exercising not the *reality*, but the *profession* of medicine; its practitioners being entitled by their diplomas, and not by their acquirements, find it convenient to summon other arts to the aid of the art medical; the mass is divided into factions, each formed and managed to serve one or two individuals; accordingly, what does not seem to have emanated from these chieftains must, if the whole race of man should perish, be circumspectly suppressed or strenuously opposed; further, they must be represented as possessing superlative genius, science, and skill; their wily manœuvring must appear as the active solicitude of pure friendship; their well-timed reserve, as the bashfulness of superior worth; their palpable failures, as proof positive, piously acknowledged, of the inadequacy of all human means! *But the darling object is not yet attained;* the well-directed breath of their party must make their names resound to the echo, and at the same time waft their bark full sail into the harbour of golden favour. Would it not be marvellous, in this discerning age, if, by such devices, these men became physicians of the first resort, *archiaters* to majesty, members of boards, and professors of universities! and if such things were, could we wonder at the ruin of the public health, and the subversion of our schools?

The moral condition of the profession just glanced at, not only affects our national institutions, but occasions great discomfort and anxiety; nay, mourning instead of joy in private families. Even when life or death is the alternative, an upright opinion cannot be obtained; a consultation is proposed; the diplomatist in attendance equivocates; the person named, he allows, is very clever, but—then with "the shrug, the hum, or ha! these petty brands that calumny doth use," he insinuates, that he would rather have one of his own choosing; out of delicacy he is yielded to, and of course, he prefers the leader of his party; thus creatures mutually dependent meet, the fate of their victim is sealed, and friendly collusion cozens the patient and his relations with preconcerted deception. These things demand an immediate remedy; and I am firmly persuaded, that the first step towards it, must be an examination of the charters, and an exposure of the usurpations of the fraternities called colleges.

Hostility of every kind, however, has been so far defeated, that the paramount efficacy of the fumigation can no longer be questioned by any person who will attend even to the following summary observations:—

Edinburgh had the cholera from the beginning of January to the end of November, during which time no great portion of the city or suburbs escaped. If it broke out on one floor, the fumigation expelled it, though it might travel through the abodes on the other floors; if the exhalations were raised from the ground, the whole building became safe, though the disease continued in the neighbouring buildings, where no such means were employed. If a part of a district was fumigated, it there ceased, though still manifesting itself all around; if now the remainder was fumigated, the whole district was freed, though it might be increasing in the rest of the city.

If the fumigation was given up too soon, or while the vicinity was unsound, the disease might recur, not otherwise; free communication with infected districts was quite innoxious.

From the month of October, when the disease threatened to spread far and wide, the inhabitants had recourse to fumigation, some in private houses, and others in the open air and in private houses simultaneously, throughout several large portions of the city; and the extinction was always co-extensive with the fumigation.

There is one uniform and interesting effect,—That, wherever the gas was raised in the open air a few days uninterruptedly, not only did the disease depart, but, whatever change of weather intervened, the atmosphere, as if reformed and endowed with a repulsive power, continued to exert a protecting influence.

We have given above the claim preferred in the name of the Board; let merit be measured by deeds. They had used all diligence, even *legal diligence*, for ten months, and expended, it is said, from 20,000*l.* to 30,000*l.*; still the cholera defied their costly efforts; at last, the disappointed inhabitants, within about as many days, at an expense which, I believe,

* The London Medical and Surgical Journal, Saturday, December 15, 1832, p. 633.

did not amount to 150*l.* achieved their own deliverance.

There are still, however, sporadic cases of cholera, and, in not a few instances, its hideously characteristic features are blended with the symptoms of our ordinary diseases; we cannot, therefore, believe ourselves secure against another, and, perhaps, a more disastrous irruption; but we have the means of safety if we will use them; and I hope his majesty's government will be prepared with a well digested system of fumigation, to be put into execution by scientific, honest, and energetic men.

Your lordship must have observed, that the people are dissatisfied with the transactions of the Boards, and that even their motives are arraigned. It is asked, why they listened with avidity to every tale, and thanked politely, the parasitical scribbler of any foolish or romantic diatribe, in favour of the doctrine of contagion, while they discouraged every inquiry which tended to dispel that baneful hallucination? They forced into circulation the subservient and worse than insignificant epistles of Drs. Barry and Russel, while they withheld—aye, lost, the invaluable communication of Dr. Hamett, from Dantzic, which would have at once rescued the nation from Boards, quarantines, and all that panic which preceded or accompanied the epidemic. In like manner, in Edinburgh, an illiterate, crude, and puerile medley of sayings and doings, mixed up by Dr. Abercrombie, and printed for the benefit of the Board, was, to the amazement of every man of common understanding, hailed with acclamation, and its author extolled as a Daniel, a second Daniel *. Mark, now, what occurred when assiduous toil and intrepid zeal produced truths most beneficial to nations, but destructive of the contagious mania. Professor Lizars having published his pathological researches, in which all these qualities were prominent, was invited to a conference with the Board, and there treated, not with thanks in the name of his country, as he well deserved, but with language of the most severe reprehension.

New methods of treatment, and painful, hazardous, and useless experiments were sanctioned, while the means demonstrated to be safe, speedy, and completely effectual, were passed by as unworthy even of a "reference." Were the vigilant Boards not informed of the cause of the sudden disappearance of the cholera from Fisherrow in February, 1832? and if they were, why did they not proclaim that this incomparable good was effected by the acid fumigation? What are we to think of those men who remained silent, when by a word they could banish want, consternation, and death? What is he guilty of who refuses that which would save the life of his neighbour? In fine, any combination to prevent the knowledge of those means by which the cholera might be annihilated, is, in effect, nothing less than a conspiracy to aggravate human misery, and perpetuate the indiscriminate destruction of human life.

What a contrast between the part taken by our medical guides, and the sound and salutary decision given by the chief physicians of France! We cannot compliment our Boards in the language addressed to the medical men of the Hôtel-Dieu of Paris.

"Gentlemen,—Your labours have enriched our science; your knowledge has added dignity to our profession; your liberal conduct has held out an example to all. You have never persecuted a professional brother for publishing his investigations.

"You have, by banishing the demon Contagion, preserved the commerce of your country; and, what is still more grateful to your feelings, you have ensured the uninterrupted exercise of those private sympathies, charities, and good offices, which soothe calamity, and strengthen the bonds of society."

As applicable in our country, it grieves me to confess, that we must prefer a quotation taken by the same author from the *Prisca Medicina* of Hippocrates *.

"Most medical men seem to me to be very like unskilful pilots, whose errors escape detection while the sea is calm and the wind favourable, but when the storm and tempest overtake them, wreck and ruin ensue, and instantly their ignorance is made manifest to all; so, in ordinary seasons, when the prevalent diseases are generally so slight, that the patients recover in spite of bad treatment, the obsequious herd of knavish practitioners win the confidence of the deluded public; but should a pestilence arise, then their craft and their incompetence become fatally conspicuous, and their well earned punishment is at hand."

Be assured, my lord, that the dissatisfaction which I have attempted to depict is not overcharged in the colouring, nor was the government itself held to be blameless in this matter, till the work of Dr. Hamett appeared under the patronage of the Lords of the Privy Council. I respectfully submit, therefore, whether the conduct of the Boards ought not to be made a subject of parliamentary inquiry.

I have the honour to be,
With the highest consideration,
Your lordship's obedient,
James Sanders, M.D.

Edinburgh, March, 1833.

* Suggestions submitted to the Medical Practitioners of Edinburgh, on the Characters and Treatment of the Malignant Cholera. By John Abercrombie, M.D. Published for the benefit of the Board of Health. Seventh edition, 1832.

* Remarks on Dr. Abercrombie's Suggestions on the Character and Treatment of Malignant Cholera. By a Young Physician, 1832.

OBSERVATIONS ON ARTERIAL POWER IN HEALTH AND INFLAMMATION.

BY J. B. SLADE,

Late Senior Surgeon to the Sussex Eye Infirmary, &c. &c.

(*Continued from page* 352.)

THE opinion current among physiologists that irritability and contractility are properties of muscle *only*, is not, I think, one of the best proofs of their having given the subject the consideration it deserves. To fibrin, that supposed essential ingredient of muscle, I, in opposition to many, attach but little importance, believing it to have no more connexion with these properties than other component parts. The true source of irritability and contractility is life, which is quite different from the members of our body, or any qualities that may be supposed to belong to any part of the material kingdom; and whether an artery has or has not such constituent parts as are common to the muscle there are certainly properties which enable it to contract, to be elastic, irritable, and sensitive; but the impulse given to an artery by the action of the blood is almost or quite sufficient to give it motion, even if there were no vitality, or if it were nothing more than an inert yielding tube. The arteries have many coats or tunics, and no particular one or two, which may be supposed to be muscular, can reasonably be considered to assist the motion of the blood independently of the others. That one coat may be better constructed for this purpose than another, and one be more elastic than another, is possible; but to the division of the coats into irritable, muscular, and elastic, some degree of vagueness applies. The whole tube is elastic, contractile, sensible, irritable, and capable of adapting itself to existing circumstances, the contractile disposition being comparatively greater in the smaller branches. That arteries should be muscular, is a subject upon which much difference of opinion exists; but that they obey laws, possess nerves, and are influenced by similar stimuli to the muscle, is too evident to admit of dispute; yet the instance of their being acted upon by stimuli is a weak argument in favour of their muscularity; and nothing more fully exemplifies the truth of these nerves being unnecessary to the existence of such properties than that when all communication is cut off between them (the nerves) and the arteries and muscle, uninterrupted action is still continued; at the same time, it has been shown by experiment that on stimulating a nerve, or even the spinal marrow, in a recently dead subject, the muscle or artery which is supplied with branches from either of those sources is thrown into motion; this, however, is no evidence that the capability of an organ to act in a living subject is not derived from the principle of vitality. Haller may talk of his vis insita, but he could never prove the existence of an inherent power of muscle, or of any other animal organ, capable of carrying on the functions independently of a pervading principle different in nature from them; neither is the fact of brainless beings a proof of any such inherent power, for in these beings is life. It must be acknowledged, that the brain can neither vitalise nor think; and it would be as absurd to talk of any function accruing from that organ as possessing an *inherent* power capable of producing such function, as from any other material body. "The motion of the blood," says Dr. W. Philip, "is carried on independently of the nervous system;" and that it is so of the will is more evident. Involuntary acts result more particularly from life; and voluntary acts from the mind, which wills to action: the former has been said to take place independently of the nervous system, the latter to be the entire result of that system. That there is greater irritability belonging to the organ which acts involuntarily, that it is likewise more readily influenced by stimuli, and

that some unusual cause must at all times be in operation to excite to an unnatural degree the organs of involuntary motion, cannot be doubted; all of which must be ascribed more or less to the strong connexion subsisting between these organs and the nerves, which nerves appear peculiarly designed to conduct or possess some certain mental and vital qualities. Hence we would infer, that although the natural motions of an artery are independent of the will, they are liable to be influenced by the nerves. How the influence is communicated—how joy, anger, grief, or any inordinate passion of the mind should expedite the motion and impair the functions of any organ which, in health, is not subject to voluntary power, or requires not the interference of the will, is impossible to describe; and in reference to what I have said respecting involuntary acts being more particularly from life, and voluntary acts from mind, many arguments may be adduced to prove that the strict physiological principles on this point are liable to some objections.

Galen, J. Hunter, Philip, Hales, Hastings, Thompson, Bell, and Munro have written much in favour of the muscularity of arteries; while, on the other hand, White, Portal, Richerand, Scarpa, Soëmmerring, Bichat, Macfayden, Parry, Magendie, Johnson, and Bostock have declared the reverse to be the case, many of whom describe the pulse to result entirely from the impulse given to the artery by the current of blood, and others deny the existence of a contractile power. Dr. Johnson considers an artery to be a contractile body, and capable of acting on the blood without muscularity; and the definition Mr. J. Hunter gives of elasticity is, that "it is a continual action, and its immediate effects are produced whenever the resistance (contractility) is removed, by which it may be distinguished from other powers." The elastic power is always at rest in the event of the contractile power being in exercise, and the artery being collapsed; but death may be said to destroy the tonicity of an artery without affecting its elasticity, which would imply that the contractile power is derived immediately from life. In the time of dilatation, or the elasticity being in exercise, there is a supply of blood that appears to stimulate the artery to offer resistance, and contraction upon the contents is a necessary result; which task, being completed, the artery seems at rest, or suffers momentary relaxation, or a suspension of contractile power; and this being directly followed by a fresh supply of blood, the calibre increases, the artery becomes more fully injected, and contraction again takes place.

The powers which belong to the arteries are unquestionably given to assist the passage of the blood; and, considering the comparatively small force with which that fluid is thrown from the heart at every systole into the aorta, and also the circuitous route of the arterial system, it is impossible to be otherwise. Borelli estimated the power of the heart in propelling the blood at one hundred and eighty thousand pounds weight; but Dr. Black, an able experimentalist, has said, with much accuracy, that this force is equal only to three pounds on the square inch; and it is supposed that double this force, or six pounds on the square inch, would be required to produce a continual stream of water through a tube, one hundredth part of an inch in diameter, which capacity hardly exists in arteries; and therefore, as Dr. Black observes, "the comparative calibre of the small arteries or capillaries must be ten times short of that extent; and the viscidity or comparative glutinous state of the blood requires four times the power water would to pass through a tube of the same calibre and extent." According to Dr. Parry, arteries undergo neither dilatation, nor contraction, nor locomotion of any sort during the systole and diastole of the heart; but his argument against the muscularity of arteries is no support to the premises from which he

draws this conclusion. I agree with him, however, that a pulsation is not indicative of an artery being composed of any constituent qualities of muscle.

That an artery pulsates, that is, alternately dilates and contracts, is not only proved by the finger, but by the eye, and therefore Dr. Parry and Magendie are incorrect in affirming that the pulse is distinguished only when pressure is made, the act of which diminishes the calibre of the artery, and tends to retard the course of the blood. The arteries always contain this fluid, and receive an additional supply at every contraction of the heart; but we have no direct evidence to prove that the pulsations of the heart and extreme arteries are *synchronous*. It may not be possible to detect any difference, so rapid is the circulation, and so continued the impulse; but upon reflection it will be found impossible for the contraction of an extreme artery to take place at the same instant as the contraction of the heart, unless the former results from a previous contraction of the latter, the same blood not causing both heart and artery to beat at the same period. Every contraction of the heart is succeeded by dilatation of an artery, and by the time, or, perhaps, at the instant, this dilatation occurs, the heart has acquired another supply, and becomes itself dilated: here are *synchronous* beats, or, at least, a concurrence of events; yet this is not what physiologists in general mean by the term synchronous. There is a continual systole and diastole of the whole arterial system, the circulation decreasing somewhat in force, if not in velocity, as it reaches the most remote vessels. No doubt the blood is the most proper stimulus to the motion of these vessels, and capable of exciting them to act without nerves; and the influence of their being independent of the nervous system may arise in some respects from this circumstance. It is further evident that no impulse can be given by the force of the heart's action to an artery which, after being tied, receives blood only through anastomosing vessels, although it is evident they receive a larger share of influence in this instance; and therefore other means than that of the heart are necessary to carry on the circulation.

Ossification of arteries is adduced as a proof against their muscularity, in consequence of its not causing any particular impediment to the circulation; but this is scarcely worth observation, when we know that the same disease happens to the heart itself without producing very great derangement in the sanguiferous system. The arteries may be partially deprived of their contractile power by ossification; but nature in such a case accommodates herself to the change, and gives additional impelling force to the heart; and, on the contrary, if this organ is the part affected, an additional power is given to the arteries. Nature is always ready to make up for a deficiency, and yet if the disease existed to a very great extent, either in the heart or arteries, it would cause fatal symptoms; whenever the heart is the seat of such a disease, the pulse at the wrist is generally found to be irregular, cord-like, and weak; there are also strong palpitations, cold perspirations, occasional difficulty of breathing, besides other symptoms of general disorder of the system.

Mr. J. Hunter has said that the heart cannot be an essential organ, as many animals which have an uninterrupted circulation are destitute of it. I conceive that comparative anatomy is very apt to cause erroneous conclusions; and although it may not be the nature of some animals to require a heart in the sanguiferous system, it is evident that without this organ no creature in the higher scale of existence could exist. Preternatural pulsation in arteries is, as Laennec affirms, the most certain test that the arteries have an action of their own, independent of the heart; and Dr. Johnson says, "when any

one will show us a pulsation in an artery where there is no corresponding ventricular contraction, then, and not till then, will we believe that the arteries can pulsate independently of any impulse from the heart." To reconcile these opinions is difficult; but it is most likely that preternatural pulsation never existed but with some disease of the arteries. That arteries have a contractile power is further proved by their being entirely emptied of blood after death. It has, however, been considered absurd to suppose this an effect of contractility when the right ventricle and pulmonary arteries, which have still greater contractile power, are entirely full. Mr. Hunter has shown that the smaller arteries contract more on this occasion than the larger; and although it has been demonstrated by experiment that the lungs have no power over the arteries, some persons still persist in ascribing this vacuum to the lungs acting as a suction pump to the arterial blood.

THE

London Medical & Surgical Journal.

Saturday, April 27, 1833.

REFORM OF THE COLLEGE OF PHYSICIANS.

Reform must be our watch-word, until that great and important change, to which our attention has been so long and earnestly directed, is actually and honestly commenced. We regret to find that that highly important and influential body of men, the apothecaries, do not appear to appreciate in the manner it deserves the utility and value of a change. To them, however, it is a matter of the deepest interest that physicians should have sound and practical information, and that their education should be conducted on the highest possible scale of excellence. Every practitioner feels the necessity of occasionally having the opinion of another individual, not only to relieve him from the weight of responsibility, but also to have the mature and cautious judgment of a man, whose suggestions may place in a new point of view the case in which he may have become so wedded to his own idea, that he is in some measure no longer a cool and impartial judge of all its bearings; new cases, also, arise, which he has not before seen, however extensive his practice may be, which demand the attention and the experience of another. Most general practitioners have found that their patients, too, are pleased with the idea of a consultation; and when the apothecary consents to it, they feel more satisfied with his judgment, nor can it in the slightest degree derogate from the opinion that has been entertained of him; and, on the contrary, should he raise any objections, he is suspected of selfish views, of fears to meet a man of experience, or of interested motives.

It is a subject of great pleasure to the medical man, to know that the individual, with whom he is to consult, is an upright, an honest, and a well-educated person, to whom he can himself confide, whose experience he can respect, whose integrity he can value. He would feel dissatisfied if an individual, inferior to himself in the learning, the practical knowledge, and even the virtues which should adorn the character of a professional man, should be called in; he does not

require a man of his own station to supersede him; he wishes to consult, to listen to, and to learn from one whom he can respect, regard, and admire. He himself hourly engaged in active practical pursuits, has little opportunity of devoting his time and attention to the medical literature of the day, to the watching every new idea that is started in the profession, and to the gleaning from every source of new materials for thinking; but this is to be expected from the physician; he must be a man of deep learning, and of discrimination; he must, besides, have had, in his early life, leisure for reading; he must, therefore, have had sufficient fortune to enable him to wait with patience, properly occupying his time, until his turn comes to obtain a large share of practice. Besides which, his independent situation must prevent his being guilty of any of those unhandsome practices, of which some of the poorer members of the College have been accused, and for which they have pleaded their poverty and not their will. Those avaricious graspings, too, which have sometimes disgraced the reputation of the physician, would not occur. In order, then, to have physicians, whose character and talents would reflect honour upon the whole body of the profession, steps must be taken to reform the present wretched abuses, to put the members upon the same level, and to remove those paltry obstacles, which the dishonesty, the selfishness, and the impudence of a few cunning and illiberal men have, at different times, thrown in the way to impede the march of sense and of honour. The education of physicians must materially differ from what it at present is. Young men are not to be allowed to go to Oxford and Cambridge, where, as they cannot study medicine, they must either devote their minds to other pursuits, or fall into mischief. Fox-hunting, Newmarket, and the bottle, have been the ruin of many young men who have gone to the Universities to study a science, which they found was not cultivated; and they have, in many instances, been rendered incapable of becoming useful members of society. It is true, that now and then great minds have been diverted to objects of real value and importance. We cannot forget, that both Galileo and Copernicus were originally medical students; but finding, in the Universities to which they were sent, the physical sciences preferred to the medical, they abandoned the latter for the former, and thus our art lost two men of genius.

We deeply deplore the present system; nor till the objects we have in view are accomplished, can we cease to lament the causes that are every day tending to depreciate the character of the physician, because it also leads to the general overthrow of the public estimation of the profession at large.

FACTORY BILL COMMISSION.

A COMMISSION has been issued under the king's sign manual "to our trusty and well beloved Francis Bisset Hawkins, Thomas Southwood Smith, Sir

David Barry, Doctors in Medicine," and twelve others, appointing them "to proceed with the utmost despatch to collect information in the manufacturing districts as to the employment of children in factories, and as to the propriety and means of curtailing the hours of their labour, so as to enable parliament to legislate on the subject during the present session." Now it must be very gratifying to these gentlemen to be told that his Majesty "reposes especial trust and confidence in their wisdom, discretion and fidelity;" and it must be very agreeable to them, at this spring season of the year, to take a pleasant excursion in the north;—but what do they in the north, when they should be serving their sovereign in the west? It needs no commissioner "to travel to inquire into the actual state and condition of such children; and as to the effect of such employment, both with regard to their morals and their bodily health." Common sense and justice are all that is required, and the labour of these fifteen honourable men, for they are "all honourable men," might be spared, and doubtless much expense to the country might be avoided. We are, however, glad that two such men as Dr. Hawkins and Dr. Southwood Smith have been appointed. They are highly useful members of the medical profession, and their respective works have tended to benefit the community. So large a number of travellers in quest of the information which they are directed to obtain we think quite unnecessary; and the names of some of the members of this new Board of Health do not sound very agreeable to the public ear. Let us, however, hope that the poor unfortunate beings who are to be the objects of this most probably well paid commission will really derive some good from its labours; and then, though at first sight we might have felt disposed to consider the whole affair another of those miserable jobs which have so often disgraced this country, we shall be most ready to bestow our warm tribute of approbation upon it.

THE PRESENT EPIDEMIC.

During the prevalence of cholera we felt it our duty to relieve the public mind from the fear and alarm which the ignorance of some, the timidity of others, and we are almost ashamed to say, the knavery of a few, had most unnecessarily excited. We pointed out the absurdity of the doctrines that were publicly avowed by men who enjoy station in the medical profession; and we held up to the ridicule and to the scorn they richly deserved, those individuals whose errors produced so much mischief. Harassed by the dreadful cases that were narrated, alarmed by those who should have been the shepherds of the flock, the greater mass of the people of this country passed some months of the deepest anxiety and fearful forebodings. It was, however, our duty, as well as our pleasure, to soothe the public mind, and to join those honest and well-judging men, who saw that the danger was neither so great nor so universal as was pretended. In like manner, in the present epidemic we shall fearlessly and honestly perform our duty, regardless alike of the smattering pretender to superior knowledge, and of the bold and daring assertions of the ignorant guide of those who are willing to be led by the blind. We feel it right, therefore, to state, that considerable mischief has arisen from the injudicious and careless treatment of the prevailing malady, and from inattention to the constitutions of those who have suffered. The outcry has been too universally raised against bleeding, and therefore the weak, and easily led practitioner, has in many sad instances allowed disease to attain a most formidable height before proper remedial means have been resorted to. It is only the influenza, has been too often said by the practitioner, it has been repeated by the surrounding friends, echoed and re-

echoed by the general voice; yet in how many cases has pulmonic disease of a most aggravated character supervened; how frequently, and that in the better classes of society, has death closed a scene of most miserable suffering from inflammation of the respiratory organs. It is true that sometimes the debility is often so great, even early in the disease, that expectoration cannot be performed, and here of course bleeding is most decidedly to be avoided.

We have ourselves seen, and our observations have been corroborated by some of the most practical men of the day, many cases of malignant peripneumonia, such as has been described by Tissot as occurring at Lausanne, and which Mason Good has very properly characterised as an epidemic synochus or typhus, occurring in such situations, at such seasons of the year, or in such a temperament of the atmosphere as has a tendency to excite inflammation of the lungs. There has been great prostration of strength, and embarassed and laborious breathing, that has been painful to behold; but we have also seen cases in which the greatest mischief has arisen in consequence of a fear of that profuse bleeding which is alone to be depended on where active inflammation of the pleuritic membrane is going on in a young and previously healthy person. It is to the constitution of the individual we are anxious to direct attention; and though we are fully aware that the type of the epidemic is to be considered, we would impress on the mind the necessity of early attention, and of close watching each individual case. The epidemic, which at its commencement was of a mild character, now assumes a more determined form, and demands at the onset careful and judicious treatment. The disease should in no instance be left to domestic remedies; we feel persuaded that many lives would be saved, much pain and suffering avoided, if at the very commencement of the attack the case had been placed under the care of a practitioner. We assert that the disease is neither to be trifled nor tampered with; many have fallen sacrifices to neglect, and we feel it our duty to raise the warning voice before it is too late.

SOME OBSERVATIONS ON THE PRESENT EPIDEMIC CATARRHAL FEVER OR INFLUENZA, CHIEFLY IN RELATION TO ITS MODE OF TREATMENT.

To which are subjoined, Historical Abstracts concerning the Catarrhal Fevers of 1762, 1775, *and* 1782.

BY RICHARD PEARSON, M.D.

The catarrhal fever, or *influenza*, which has been for some weeks very generally diffused over this metropolis and its environs, and is now spreading to distant parts of the island, is a subject of considerable interest to medical practitioners, and still more so to those who examine with a philosophic eye into the obscure causes of general epidemics. The disease, to which the term *influenza* is now irrevocably fixed, has appeared, at intervals, varying over almost every part of Europe; and as it has seldom been of a nature to spread alarm and terror, it has excited all the attention due to so interesting an epidemic from the inquiring physician. The great similarity, amounting almost to identity, of nature between these several epidemics is fully established, but we have still to search for their remote and predisposing cause; and many important questions relating to their nature and character still remain unanswered. In the present instance, it is much too soon to attempt the general history of the epidemic, and the author has therefore confined himself chiefly to a simple relation of the prevailing symptoms, and, what is of immediate consequence, to the mode of treatment which has been found the most successful. He announces his intention of pursuing his inquiries into the subject; which, we trust, will also be done by every intelligent practitioner in the kingdom. As our Journal

may probably reach several parts of the island before the arrival of the epidemic, we shall give, in the author's words, the whole of his description of its attack.

"The catarrhal fever, or influenza, which is now spreading itself over the whole metropolis, and will probably soon make its way to every part of the kingdom, first showed itself here towards the end of the last month (February), when a damp and mild state of the atmosphere had succeeded to severe cold. This again has been followed by frost and keen easterly winds during the first part of the present month (March). Like all similar preceding epidemics, the present influenza has exhibited various degrees of morbid affection; having been, in some instances, so slight as not to incapacitate persons from continuing their ordinary occupations and pursuits, and scarcely to require the aid of medicine; whilst, in others, the attack has been of such a malignant nature as to endanger and even destroy life.

"The following is its most frequent mode of attack. After some alternations of chilliness and heat, the patient is seized with a heaviness or pain of the head, with sneezing, wateriness of the eyes, hoarseness, and cough. These symptoms come on in the order here stated. In the course of a few hours the head-ache increases, the skin becomes hot, with a pain in the back and limbs, or transitory stitches across the chest. The tongue is white; the pulse quick or frequent, and for the most part soft. There is more or less sickness at the stomach, and sometimes vomiting. The bowels are generally costive, and considerable uneasiness, often amounting to great pain, is felt in some part of the abdomen. By the second or third night, the cough and fever become greatly aggravated. The former, viz. the cough, is strong, incessant, sometimes dry, but generally accompanied, even at its first coming on, with an expectoration of thin sharp mucus; the latter, viz. the fever, is attended with increased heat, and with extreme restlessness and anxiety. There is also some confusion of the head At this time the pulse is often from 100 to 120. In the morning there is a considerable remission of the febrile symptoms; but the cough still continues urgent, and the patient complains of excessive languor and dejection of spirits.

"After the fourth or fifth day, where early perspirations have come on, or sufficient evacuations have been procured by the bowels, the fever declines; and although the cough continues, the expectoration is more free, the sputum being of a thicker consistence and milder quality. The urine, which before was high-coloured and clear, now becomes turbid, or throws down a sediment. In other instances. the cough goes off without any remarkable degree of expectoration. The lassitude and depression of spirits with restless nights, harass the patient for many days after the decline of fever; which, indeed, in several instances, does not entirely go off after the fifth day. but becomes intermittent, the patient feeling himself worse every other day.

"Such is the most common form of this epidemic. Its modifications, however, as we have before observed, are extremely numerous, so that in some there is a violent head-ache with little catarrhal affection; in others, a sore throat; in others, a peripneumonic condition; and in others, a disordered state of the stomach and bowels."

The above description is sufficiently clear and accurate, if meant to exhibit the genuine form of the epidemic unmixed, (as may be inferred) with the symptoms of any other disease or morbid tendency which may happen to be present at the time of attack. The swelling of the eye-lid and the inflammation of the conjunctiva might have been mentioned more particularly, as they have, in several instances, been the most marked, and sometimes the only symptoms of the epidemic.

The author then proceeds to the method of cure, which he introduces by the very judicious observation, that

" as it is the fever which constitutes the essence of the disease, our first attention should be directed to it, and not to the cough, (except when it is accompanied with a true peripneumony;) otherwise by prescribing only for one of its symptoms, we shall make but little impression upon the general morbid affection." Pectoral remedies are not at first to be resorted to, but we should use emetics and mercurial and antimonial cathartics. For the latter purpose, he recommends calomel, joined with about half its weight of pulvis antimonialis, assisted, if requisite, by a solution of some neutral salt. The calomel and antimony seldom fail speedily to produce general diaphoresis, which relieves the symptoms of general fever, but not the cough. This latter, and the dyspnœa, require the application of a blister, to which may be joined the use of aqua ammoniæ acetata and æther. After the bowels have been opened, opiates afford relief, but they must be given in very sparing doses. A solution of cream of tartar forms a very proper drink, which may be taken without reserve. In the decline of the disorder, when the cough is still troublesome, squills and æther may be used with advantage, but oily medicines and the pectoral emulsion are improper. The languor, dejection of spirits, and debility left by this epidemic, are so considerable, that after the first or second day, all attempts to keep up the sweating process should be avoided, the patient should sit out of bed, and the room be kept cool and well ventilated. During convalescence, which is often very slow, the author recommends infusions of the bitters combined with natron, but the Peruvian bark and the mineral acids, he observes, are of no avail, and even do harm. The diet should be thin, mild, and mostly vegetable; broths should be avoided, as they keep up an unsalutary perspiration, and increase the head-ache, nausea, and languor.

This is the plan laid down by the author, which is judicious and temperate. In the essential particulars it agrees with the general practice that has been adopted in this metropolis, but in some points it differs so much, that we think more attention might have been paid to this subject. If the author had considered the oily and pectoral emulsions as merely insignificant auxiliaries, little or no notice of them would have been necessary; but as they have actually been employed in London with the most unsparing profusion, an absolute condemnation of these trifling remedies might have been accompanied with some remarks. The same of bark, and the mineral acids, though they have been less used than the former. Blisters have been found so highly beneficial in many instances, that they well deserved a warmer recommendation.

The present epidemic has proved fatal to a considerable number of persons, when combined with pulmonic inflammation or habitual asthma. The treatment of these delicate cases is referred to the general treatment of peripneumony, but without that discrimination which in the present period would be peculiarly interesting.

On the whole, we can only consider this pamphlet as a sketch, traced out with a hasty pencil, and if generally correct, somewhat deficient in the filling up.

Extracts from the most authentic accounts of the former epidemic catarrhs, or influenzas, are subjoined, which show in a very satisfactory manner their identity with the present epidemic and with each other.—*Medical and Physical Journal*, 1803.

THE INFLUENZA AND THE CHOLERA.

The public generally supposed that the faculty had high times of it during the prevalence of the cholera. It is human to err. The cholera was the worst enemy of medical practitioners. It killed the infirm, it frightened the timid, nervous, bilious, and hypochondriacal, and drove them out of town. It only served the Boards of Health

and their toadies. The faculty, in general, honest and upright as they ever have been, and ever will be, derived no advantage, but absolute disadvantage.

The influenza, though by no means so terrific, is more beneficial. Every family has felt its influence; and medical practitioners are in general requisition. It is unpleasant, painful, distressing, and fatal to the aged and infirm. But there being no Boards of Health it is not contagious, though decidedly more so than cholera, but it has not been traced from Warsaw, Russia, or Sunderland; and, according to all, is caused by the weather—so was cholera in reality.

We want a few *Fellows* of the College of Physicians, not common physicians, and a trio of army surgeons to form two sapient Boards of Health, to convert it into a pestilence. How inconsistent are the government and privy council, to calmly look on and see his Majesty's lieges so generally affected! The ministers ought to be impeached for their insensibility.

Reports of Societies.

WESTMINSTER MEDICAL SOCIETY,

Saturday 20th.

Dr. Sigmond in the Chair.—The President drew the attention of the meeting to the proposed tax on students, who obtained, according to the present act of parliament, subjects for the study of anatomy. It had been suggested to the committee, that an evening should be devoted to the consideration of this important matter, but as there was one more meeting only this session, and it had been already decided that the discussion on that night should be directed to a point, upon which the public attention had been called, Factory Labour, it would be necessary to call a special meeting for the object under consideration, more especially as it seemed to be desired, that the Westminster Society should draw up a petition to parliament, to point out the mischief that would arise from such a tax.

Dr. Webster felt anxious, that the Society should discuss the subject, that the public might judge for itself, upon whom this taxation should fall; he certainly thought the tax would be injurious to science, but still, that if it was at all imposed, it must properly fall upon those who were immediately interested in it.

Some further conversation ensued upon this matter, and then Mr. Hunt, according to the promise he had made on a previous evening, began the discussion of the prevailing influenza. He detailed, with much accuracy and practical knowledge, the symptoms which have been rendered so familiar to the medical man, and gave his opinion as to the mode of treatment, which differs very little from that which has been generally recommended and followed.

Dr. James Johnson observed, that the prevailing epidemic bore the strongest resemblance to one which he himself had witnessed, and had suffered from, precisely thirty years ago, and which had been ably described by Pearson, Beddoes, Hooper, Kinglake, and other medical men. Much had been said at the present day relative to bleeding, which had been considered quite unnecessary, an opinion which he was persuaded had been the source of much mischief. He had seen many instances where the symptoms of pneumonia had been so urgent, that bleeding was absolutely required, and that, if proper discrimination was not exercised, fatal results would be the consequence. There were one or two symptoms which he had so invariably observed, that he thought them deserving particular attention; among these was a peculiar appearance of the eye, the vessels of which are full and turgid; the pain in the head was also a striking feature.

Dr. Webster thought the prostration of strength was sometimes embarrassing to the medical man, for instances presented themselves where vigorous bleeding might be necessary

for the thoracic affection, though the system appeared too debilitated to support it.

Mr. Greenwood observed, that the difference between a contagious and an epidemic disease was very striking, in the former, as in the cholera, a few only were attacked, whilst so many individuals were the subjects of an epidemic influence,—to which

Dr. James Johnson replied, that the observation did not hold good, for in Paris the disease spread with the same violence and rapidity that the cholera did in this country.

The subject of Factory Labour is to be brought forward by Mr. John Malyn at the next meeting.

MEDICO-BOTANICAL SOCIETY.

Tuesday, April 23, 1833.

HUMPHREY GIBBS, Esq. in the Chair. —Dr. Sigmond read a translation of a letter from the celebrated Miekewitz, on the horticulture and the botany of Poland, detailing the causes that had prevented those sciences advancing as they once promised to do in that unfortunate country. He dwelt upon the important features, both geological and botanical, and pointed out the influence of climate and soil.

Dr. Ryan then commenced a lecture on the medicines which have lately been introduced into this country, and stated his intention to enter minutely upon the more important ones at the next meeting, on the 14th of May.

THE COLLEGE OF PHYSICIANS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN.—In No. 63, page 342, of your Journal, there is an article concerning the College of Physicians, in which they are made to cut rather a *queer figure!* Who, in any other part of Christendom (with which we may now couple Egypt), would believe that there are forty or fifty "*sad and discreet*" physicians, in London, that have voted all advance of professional knowledge and general professional interests and respectability—all regard for public health—all concern about *their own duties*, as "guardians" thereof—and every thing of the sort, matters of supererogation, utterly out of their line, if not beneath their notice? Would not MEHEMET ALI and CLOT BEY stare, were a dragoman to enter, during a conference between the monarch and his professional counsellor (about the advancement of the medical school at Cairo), and to state, that in London—the fountain of intellectual light, there is a small divan who consider themselves sufficient to cure the twenty-two millions which constitute the population of the British empire, and that nobody (according to their decrees) knows any thing about diseases but themselves?

The writer of the article alluded to has assured us that "the College will continue its selfish and corrupt career while undisturbed:" upon which permit me to make a remark.

The College has, of late, been so hooted, scouted, pommelled, and punished (both in revenue and estimation) by those who are not *hail-Fellows* with them, that they have become as sulky as so many badgers, and now will do no good for *sheer spite*. They have left the profession at large to seek their remedy; which, if they go rightly about the business, they may rely upon obtaining, and that promptly.

Moreover, these fine gentlemen of the Royal College have suffered the day to go by. At the time of the celebrated altercation about meeting in consultation*, a new act and charter might, perhaps, have been had by asking for; although this was considered to be rather apocryphal by the profane. They are now cunning enough to be aware that the less stir they make the better, lest, in the inevitable confusion, they should lose

* See all the Medical Journals for August, 1827, excepting the *yellow*.

even the gatherings of the last three centuries. Consequently, their policy must be to take care of what is already in the treasury, as it is very unlikely that it will increase.

I am, Gentlemen,
Yours, truly,
ALIQUIS.

April 15, 1833.

P. S. I have more to say in a similar style.

Reviews.

The Edinburgh Medical and Surgical Journal. April, 1833.

Our northern contemporary pursues the even tenor of its way, and contains its usual quantity of original communications. These are ten in number. The first article is an "Essay on the Comparative Merits of Artificial and Natural Classification, as applied to Diseases of the Skin. By John Paget, M.D." This is a learned, scientific, and able paper on the subject of classification in general, and that to which it nominally refers in particular. It occupies twenty-nine pages, and is to be continued. The author analyses the artificial classifications of Willan and Bateman, and is a zealous disciple of the natural one of Alibert. The second article has the singular title, "Short Memorandums of Symptoms and Dissections. By Alexander Murray, M.D." The writer describes two cases of disease of the heart affecting the brain, and one of injury of the thigh-bone, in none of which is there any peculiar interest. The third paper is on "Dirt-Eating (Mal d'Estomac). By David Mason, Esq." The author designates it Atrophia a Ventriculo. He describes the disease as common among indolent negroes; and states that it is to be treated on ordinary principles. The fourth paper is on "Cholera as it appeared at Cupar, Fife. By Dr. Scott." The fifth article is a translation from the German work of Schlemm "On the alleged Existence of a Ganglion Oticum in Man and Quadrupeds." The sixth article is headed "Remarks on Hiccup, its Causes, and Cure. By Thomas Shortt, M.D." This is an interesting paper, evincing research and observation. The author cites many writers to prove that hiccup may be idiopathic, and of many years' continuance, and symptomatic of numerous other diseases. His pathology of it is as follows:—

"Hiccup, under all its forms, is purely of a spasmodic nature, and consists of a sudden, rapid, and brief inspiration, in which the stomach and diaphragm are drawn upwards,—in which the whole of the respiratory muscles are concerned,—totally however, independent of the will, and accompanied by a loud sound, occasioned by the rapidity with which the air enters the larynx, while the *glottis* is constricted by its muscles; the diaphragm is again drawn quickly downwards, but without affecting respiration, from its sudden movement emptying the air-cells of the lungs;—and a total relaxation of the different parts concerned follows; and these symptoms are at times succeeded by an uneasy sensation at the *præcordia*, often amounting to pain. There is evidently a decided analogy between it and sobbing, which often ends in hiccup; but the returns of spasm in the latter are less frequent. In both, the muscles of the abdomen are unaffected, being merely pushed forward during the fits, and return without effort to their places after each convulsive movement.

"The cure of hiccup consists in bleeding and cupping in plethoric habits—in vomiting and purging when the disease depends on disordered states of the stomach and bowels, followed by large doses of alkalies, to remove acidities of the stomach and *duodenum;* and when it arises from spasm, which is by far its most common cause, by the use of the warm bath, narcotics, especially opium, antispasmodics, such as prussic acid, valerian, musk, camphor, castor, bark, assafœtida, and arsenic—and counter-irritants or rubefacients as blisters,

sinapisms, poultices of garlic and hemlock, warm plasters and anodyne frictions to the *epigastrium*. When occasioned by debility, it is more successfully opposed by stimulants, such as turpentine, æther, ammonia, oil of anise, mint, cloves: also wine and spirits freely employed.

"Sœmmering recommends blisters between the shoulders: but the most powerful means, so far as I have had any opportunity of judging, appears to be that of blistering the surface from the neck over the origin and course of the phrenic nerves, for which purpose the blister is applied nearly round the neck, to secure its position, and to cover fully the different parts concerned."

Dr. Shortt relates four cases cured by this plan, one of which was also attended by Dr. Hamilton, the justly celebrated Professor of Midwifery in Edinburgh, and seen by Dr. Craigie. The cough lasted, every morning, for two hours, and occurred 100 times in the minute.

The seventh paper is the "Tenth Report of the Edinburgh Surgical Hospital, from August 1832, to Feb. 1833. By James Syme, Esq." Mr. Syme has already received our highest praise for his zeal in establishing an hospital single handed, for the admirable management of the institution, for the numerous formidable operations in general so dexterously and successfully performed, and for his clinical reports so regularly published. There is not a single surgeon in London who has imitated his example, or given a fair and honest account of his success and failures. We have formidable operations recorded in the journals, and puffed in the newspapers; but as to the event when unfortunate, the records are silent.

The eighth essay is entitled "Remarks on the History and Etiology of Cholera. By David Craigie, M.D." This is unquestionably the most learned and elaborate account of the history of cholera which has yet appeared. The author confirms our repeated statements in this Journal, that the late cholera was not a new disease, either in this country or elsewhere; and quotes the works of Aretæus, Cœlius Aurelianus, Asclepiades, Alexander of Tralles, Theodore Priscian, Actuarius, Al Rasi, and Abu Ali Ebn Sina, or Avicenna, and all their renowned European successors, in support of his opinion. What will the first and the last London Boards of Health say to this? They may shake their heads and exclaim, "thou canst not say that we did it." Neither did the world accuse you, honest, learned, and omniscient mortals. Yet who so learned, who so competent, as the Fellows of the Royal College of Physicians (according to their own opinions),—men who despise stupid, low, ill-bred graduates of Edinburgh, and could not admit them among themselves, either in the said celebrated institution, or at the first Board of Health. When an Edinburgh graduate was mentioned as one who had observed Asiatic cholera, and a wish expressed he should be admitted as one of the Board, the jesuitical reply invariably was, "Oh, he is not one of us;" but here is an Edinburgh physician demonstrating the shallowness of the pretensions of a miserable ignorant corporation, that assumes to possess all the medical learning of the United Kingdom.

Another fact worthy of record is, that the *Edinburgh Medical and Surgical Journal* declares Hamett's Report on Cholera to be decidedly the best published during the late epidemic. Here is another iteration of our opinion. Nevertheless, such is the depravity of the human heart, that this work, because it proved, as clearly as a meridian sun, that cholera was not contagious, was not suffered to be printed; the part of it that related to that point was *stolen*, and its author deprived of the expectations held out to him, that he would be rewarded in the same manner as our Russian medical commissioners; but they were contagionists, and he was not. He, like an honest man, could

not succumb to the powers that were, and hence he was punished for his audacity. Posterity will do him justice, and his name will be revered in the annals of medicine long after his oppressors will be consigned to contempt and oblivion.

The ninth paper is "On the Chemical and Physiological Properties of the Empyreumatic Oils of Foxglove, Henbane, and Tobacco. By John Davie Morries, M.D." The conclusions of the writer require to be confirmed by many more experiments before they can be received.

The last paper is headed "Cases of Dropsy and Gangrene occurring after the Use of unwholesome Potatoes, with Remarks. By Alexander Peddie, Esq." We do not perceive the connexion between cause and effect in this paper.

Though we esteem our northern contemporary, as is proved by our preceding remarks, we should be inclined to hint that the review department stands in much need of mutation. *Verbum sat.*

Observations on Impediments of Speech; with some Remarks on their successful Treatment. In a Letter addressed to T. J. Pettigrew, Esq., F.R.S. F.A.S. F.L.S. President of the Westminster Medical Society, &c. &c. By Richard Cull. Pp. 31. London: Renshaw and Rush, 356, Strand.

Mr. Cull has paid much attention to the derangements to which the human voice is liable, and to those peculiar circumstances which affect the utterance of language. These are subjects to which sufficient attention has scarcely been paid; and we are therefore pleased that, however concise the observations may be, some attention has been directed, although Mr. Cull has little opportunity, in so short a pamphlet, of expressing the opinions he has formed. He has given some very valuable though brief observations on the nature, causes, and remedies of stammering and other impediments of speech, which he has prefaced by some remarks on the structure of the organs subservient to the voice and to speech; he says:—

"Impediments of speech have been classed under the two heads of malformed organs and functional derangements of perfect organs. In order to ascertain the division to which any particular case may belong, first ascertain if the patient can read or speak, if alone, or when not under excitement or embarrassment, for if there be the power to read or speak under such circumstances, it is only one of functional derangement; but if, on the contrary, the patient stammer under every circumstance, we may be certain that it arises from malformed organs. Having ascertained this, we have now to discover whether it be of the voice or speech. If the patient find a difficulty in producing voice, and when formed has no control over its continuance or pitch, we may refer the defect to its organ, when it will be found to exist in the glottis, where all power of volition is either uncertain or lost; and, on the contrary, if there be no difficulty in producing voice, but merely a want of power in giving to that already formed the characteristic properties of lingual utterance, the defect may be referred to the organs of enunciation.

"Under whatever impediment the patient may labour, although his case must be treated according to general principles, yet they will require to be modified and varied according to the necessities of that particular case. 'It will always be found,' says Dr. Watson, speaking of defects of speech, 'that a little showing is worth a volume of written instructions,' and for this reason, sounds cannot be exhibited to the eye, they must be communicated by the ear: written instructions are very good auxiliaries; but even these must be adapted to the peculiarities of each case, otherwise they will be useless, if, indeed, they have not a worse tendency; for sometimes by such means an impe-

diment is aggravated, instead of being relieved.

"All voluntary motion is performed by the aid of the muscles, which is effected in a most extraordinary manner, by the power which the will has over them, called volition. Every muscular motion is the effect of volition, although we are not conscious of any direction of power for the common motion of the legs, as in walking; or of the arm, as in raising it to the head; or, in short, of any of the ordinary flexures of the body; but if we attempt a new muscular motion of any part, we feel a difficulty in performing it; that is, the will has not exerted its power over that particular train of muscles, and so we are conscious of a direction of power, or a distinct volition, to effect our wish. This is observable in young recruits under training in the military evolutions, and those who, advanced beyond childhood, are learning to dance, fence, the gymnastic exercises, to play on a musical instrument, &c. Thus, novices in dancing require to look at their feet to place them aright; but, after some practice, they find this unnecessary, and even feel unconscious of any act of volition in going through complicated dances: the first act of the will to perform any figure appears to excite to action the whole train of muscles employed for those particular motions.

"So persons learning a foreign language, where the pronunciation differs from our own—as the French, for instance—exert, at first, a distinct volition for each sound; after some practice, the habit is acquired of pronouncing the words with scarcely consciousness of exertion, until they become so familiar as for whole sentences to be produced, containing very complicated combinations of sound, by one act of volition, until they even think in the language. Those who are accustomed to teach languages find a great diversity in the power of correct pronunciation in different pupils: some acquire the power at first hearing the words, while others require not only considerable time, but even many efforts after the mechanical formation or position of the inner, as well as the outer, mouth are exhibited to the eye (in conjunction with the sound to the ear), before they can gain the power: there are great differences in the power of volition in the same individual at different times."

Few persons have made more judicious observations upon this subject than Dr. Arnott, in his "Elements of Natural Philosophy." He points out, in the happiest manner, the expedients that are to be followed in remedying the defects of voice and speech, to which poor human nature is liable, and to his admirable essay we can with pleasure refer.

PETITIONS AGAINST THE APOTHECARIES' COMPANIES.

A GENERAL meeting of the Graduates and Students of Medicine at the Glasgow University has been held, to take into consideration the grievances under which Scottish graduates labour in England, in consequence of the unjustifiable monopoly of the London Apothecaries' Company; and we are happy to say, that the Colleges of Physicians and Surgeons, the Senatus Academicus, and the Medical Students at Edinburgh have also met, and determined to represent the case to government, as well as to petition parliament upon this important subject. Now, therefore, is the time for our medical students at our Universities to follow the example of their brethren at Edinburgh and Glasgow, and, by making common cause with them, to increase the effect of the representations about to be sent to the legislature, and endeavour to obtain the removal of a monopoly which is as injurious in effect as unjust in principle. Previously to 1815, the graduates of the Scottish and Irish Universities were permitted to settle in any part of England as medical practitioners, but in that year a bill was passed, enacting that no one

should dispense medicines in England and Wales, without having previously served a five years' apprenticeship to a member of the London Apothecaries' Company. In England, nearly the whole of the medical practice is performed by surgeon-apothecaries, who have no other legal claim for, or mode of, remuneration but the absurd and most improper system of charging for medicines. This immediately brings the practitioner under the operation of the Apothecaries' Company, and amounts to a virtual exclusion of the Scottish graduates from pursuing their profession in any part of England or Wales; for let a man possess what talent and acquirements he may, and whatever examinations he may have undergone, and certificates he may have obtained, in Scotland, he cannot practise in England, without having served a five years' apprenticeship to an English apothecary.

Since writing the foregoing remarks, we have learnt with pleasure, that a meeting of the practitioners and students is to be held on Thursday next, upon this subject, in the Medical Hall, King-street; and we trust that, by uniting their efforts to those of the profession in other Scottish cities, the unjust monopoly of the London Apothecaries' Society will be abolished.

PORTRAIT OF THE LATE JOSHUA BROOKES, ESQ.,

Professor of Anatomy, F.R.S., F.L.S., Soc. Cæs. Nat. Cur. Mosq. Soc. &c. &c.

DEDICATED TO HIS PUPILS.

It is intended to publish, by subscription, a print from the portrait of Mr. Brookes, in the possession of Mrs. Benham, painted by Mr. Duppa, to be executed on Steel in Mezzotinto, by Mr. W. Ward, Engraver to his Majesty.

The Print will be ready for delivery in May of this year.

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LITERARY INTELLIGENCE.

In a few days will be published, Observations on the Illusions of the Insane, and the Medico-legal Question of their Confinement. Translated from the French of M. Esquirol. By William Liddell, Member of the College of Surgeons, &c.

MEDICAL INTELLIGENCE.

The Jacksonian prize, for 1832, offered for the best Essay "on the Mode of Union in Simple and Compound Fractures" was awarded, by the Council of the College of Surgeons, to Benjamin Phillips, Esq., of Wimpole-street, Cavendish-square.

CORRESPONDENTS.

A Student.—The tax is to be enforced by increasing the price of the stamp for the diploma.

A Student at the London University.—The hospital is commenced, and will be complete by October next. The fee for medical and surgical attendance will be about ten or twelve guineas.

A Reformer.—It is possible that the College of Surgeons intend to do nothing; but we speak advisedly, when we state that reform is certain.

Piece of Plate to Mr. Dermott.—The students of the Medical School, Westminster Dispensary, have presented a very splendid piece of plate to their lecturer on anatomy, G. D. Dermott, Esq., for his indefatigable zeal and attention, and for his exertions in destroying the monopoly attempted under the anatomical bill.

A. B.—The report of the proceedings of the Committee of the Westminster General Dispensary has been received; but it shows human nature in so unfavourable a light that we cannot notice it.

J. C. T.—The act contemplated would be punished by a year's imprisonment at least.

We beg to assure our contemporaries that this journal is regularly forwarded in exchange, and that delay is to be attributed to their agents, and not to our publishers.

Amount of Subscriptions already received in aid of Dr. Ryan . .	£224 15 6
R. R.	1 1 0

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 66. SATURDAY, MAY 4, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXXIV., DELIVERED DEC. 21, 1832.

Gentlemen,—In the examination of persons who have died of hydrophobia, inflammation may generally be traced in some part of the alimentary canal, in the mucous membrane of the pharynx, œsophagus, stomach, or intestines; indeed, the mucous texture of these viscera may not only exhibit traces of inflammation, but of what almost amounts to gangrene. You will also frequently discover marks of inflammation in the respiratory organs, in the mucous membrane of the larynx, trachea, or bronchia. In some instances, there are appearances of inflammation about the medulla spinalis; the preparation, which I now show you, is the medulla spinalis of a child, which died of hydrophobia; you may notice its increased vascularity, the thickened state of its membranes, and the enlarged tortuous state of the veins, running in the direction of the medulla itself. Here, gentlemen, is another specimen of a spinal chord, taken from a subject destroyed by hydrophobia, and you may see, that its tunica arachnoides is thickened, which is curious, inasmuch as vessels have never yet been demonstrated in that membrane, and we know, that the presence of vessels in a part is essential to the existence of inflammation. Gentlemen, I next show you the stomach of a person who died of hydrophobia; it has been turned inside out and dried, and then put into spirits; you may perceive an increase of vascularity in it, and, about the lesser curvature, a cluster or chain of enlarged glands.

I have explained to you, that the poison of hydrophobia is generally believed to be contained in the saliva of a rabid animal; but, in consequence of the salivary glands not appearing to undergo any structural change, a French physician, named Trolliet, who wrote a good account of the disease a few years ago, brought forward the doctrine, that the secretion, with which the hydrophobic poison is really blended, is the mucus of the respiratory organs. He argued, that, as traces of inflammation existed in the lungs and in the mucous membrane of the air passages, and nothing wrong could be detected about the salivary glands, the view, which he took, must be the right one. Trolliet's observations on this point, however, gained but few converts, and it was soon ascertained, that vestiges of inflammation about the mucous membrane of the respiratory organs in rabid animals was far from being a constant occurrence; for M. Magendie dissected several rabid sheep, in which no traces of inflammation, in any part of the organs of respiration could be perceived. In dispelling the error, which I have now been considering, dissections have been useful; but, I am sorry to be obliged to confess, that, in other respects, they have not thrown any light either on the nature or the treatment of hydrophobia; in fact, though you will frequently find in the several parts I have mentioned traces of inflammation, in a certain number of instances you will not notice any thing of the kind. I may say, that, in the bodies of persons destroyed by hydrophobia, there is no regularity in the appearance of inflammation in any particular situations or organs, so that, when it is met with, it seems rather as an incidental than an essential occurrence. Sometimes the lungs are emphysematous, vesicles being produced under the pleura pulmonalis, as is occasionally thought, by the rupture of some of the air-cells in the violent convulsive efforts of respiration in the course of the disease.

As hydrophobia is still regarded as an incurable disease, I scarcely need inform you, that it must always be an object of the highest importance to prevent its attack, or the commencement of the symptoms. Fortunately, this may generally be accomplished, by removing the

wounded parts as speedily as possible. When, therefore, you are called to a person, who has been bitten by a rabid animal, or by one suspected to be in this state, you should lose no time, and, if the operation be practicable, have immediate recourse to the complete excision of the bitten parts. Sometimes considerable perplexity arises from the situation, or number of the bites; thus, you may meet with cases, where the places, into which the animal's teeth have entered, are very numerous; you may also be consulted for persons, in whom the teeth have penetrated among the small bones of the carpus, or tarsus, or close to a large artery. I remember an instance in which the bite was situated close to the radial artery. In this circumstance, amputation has been proposed; but it might perhaps be a more justifiable plan to perform the complete excision of the bitten parts, together with the portion of the artery that happens to be in the way, and then secure the ends of the vessel. I have said, that the excision of the bitten part is a proceeding which should be adopted early; it is unquestionably the most likely means of preventing an attack of hydrophobia; but, in order to answer this purpose, the incision must be carried deep enough. Now, it frequently happens, that there is an uncertainty about the possibility of cutting out every part reached by the animal's teeth, and, on this account, before you begin the operation, I advise you to adopt a very simple but obviously prudent measure, namely, wash the wounded part well,—let a stream of water fall upon it from some height, out of the spout of a tea-kettle, or throw warm water forcibly against the part with a syringe. Thus you may possibly wash away any virus lodged upon the surface of the wound, or near its orifice. I recommend you next to pursue the plan, which Sir David Barry has advised: let the ablution be followed by the application of a cupping-glass to the part; thus, you will have a chance of removing another portion of the virus, and, at all events, you will suspend the action of the absorbents in the part, which action, as Sir David Barry's interesting experiments prove, cannot go on when the atmospheric pressure is removed. Having done these things, you should perform excision in the most complete manner possible, and then apply the cupping-glass again. Lastly, by way of still greater security, you may, if you please, cauterise the part. Such are the most effectual plans, which I can suggest to you, for preventing the absorption of the hydrophobic poison, and, no doubt, if performed in the order I have specified, they would rarely fail. In examples of the bites of snakes, gentlemen, you have not the same opportunity of preventing the influence of the poison on the system, because the effects of the poison take place with surprising rapidity, and, unless you were on the spot at the moment of the bite, the system would be affected before you could put the preventive means in practice; but, in the kind of poisoned wounds now engaging your attention, the virus is slower in its operation, and hence your plans for averting its action on the system altogether will have a better prospect of success. The interval between the bite and the constitutional disorder is long; and, as the admission of the virus is tardy, the doctrine is often maintained, that if excision has not been performed at first, it is still called for, as long as the constitutional derangement has not actually commenced. Of course, the sooner you excise the part, the better chance you have of preventing hydrophobia. Caustic alone should never be depended upon; for many instances of its failure are upon record.

For the prevention of hydrophobia, some other plans have been proposed. One medicine, formerly in great repute, was the *Ormskirk medicine*, but its reputation, at the present day, has declined so much, that we hear little of this nostrum. The same may be said of submersion in the sea: I remember it was the custom, some years ago, to convey almost every person, bitten by a mad dog, to the coast, where he was plunged in the sea, and almost drowned, for the purpose of preventing an attack of hydrophobia. Next, I may observe, that, a few years ago, a Russian physician, named Marochetti, extolled the practice of giving copious doses of the *genista tinctoria*, or butcher's broom, and of pricking with a lancet certain small pustules, or vesicles, which, according to his statement, form under the tongue, between the third and ninth day after the bite. These vesicles, or pustules, it is alleged, form near the orifices of the ducts of the submaxillary glands. Many endeavours have been made to discover them; but, I believe, they have never been observed in this country. In France, M. Magistal is said to have noticed them in several instances, and to have tried Marochetti's plan, which failed in his hands, and is not at present a subject of much interest with us.

Gentlemen, the importance of the preventive treatment, which I have explained to you, will be duly appreciated, when you are informed, that, after the commencement of the constitutional symptoms, the cure of hydrophobia is so rare, that the very circumstance of a recovery generally creates a degree of doubt about the possibility of the illness having been true hydrophobia.

Gentlemen, I have already apprized you, that, in some other cases of poisoned wounds, especially in those of the bites of certain venomous snakes, you may give the patients immense doses of the most powerful medicines, without danger of poisoning them. I have told you, that the liquor arsenicalis has been given in doses containing not less than one grain of arsenic, without any deleterious effects: the same fact is observed in hydrophobia and also in tetanus. M. Magendie dissolved ten grains of opium in water, and threw the solution into the venous system, without producing any narcotic effects, or derangement of the animal

economy by the experiment; nay, the hydrocyanic acid itself is alleged to have been injected into the veins without the usual deleterious consequences. Such facts, gentlemen, appear to me very much against the probability of any medicine being ever discovered capable of curing hydrophobia; and from this remark I would not except the reputed specific, which Sir Anthony Carlisle has received some bottles of from South America. I do not wish, however, to discourage the trial of new things, where all the old ones seem so decidedly useless.

Professor Magendie, having observed by some experiments which he made on animals, that the injection of water into the venous system seemed to have a tranquillising effect on the nerves, was induced to make trial of this plan in hydrophobia. In one patient, he threw a considerable quantity of water into the veins during the paroxysms, so as to cause an artificial plethora, at first with some prospect of success, for the patient became tranquil, appeared for a time to be soothed, and actually lived nine days, which was a most uncommon event, as patients generally die in forty or fifty hours, and very few indeed live beyond the sixth day. The particulars of this case, therefore, were no sooner made public, than they raised expectations, that a very important discovery had been made; but subsequent trials of the plan have not established its value, and it is now deemed of as little use as every other scheme for the cure of this disease.

Another plan, gentlemen, of which the most favourable report was received from the East Indies, was the taking away of a great quantity of blood; the bleeding of the patient *ad deliquium*. Instances of the success of this practice are given; but the trials which have been made of it in Europe, have not confirmed its efficacy. Indeed, I cannot mention any mode of treatment entitled to much attention, except for the purpose of letting you know what has been tried unavailingly; thus, opium has been given in immense doses without any good effect; and so have the acetate of morphia, and pure ammonia. Belladonna has been given by the mouth, and injected into the veins, without any useful result. Tobacco clysters have been employed in vain. In other examples, the parts have been washed with oxymuriatic acid, and the same medicine has been given internally, in the quantity of a drachm in the course of twenty-four hours, made into pills with crumbs of bread. This practice was tried at Lyons without success. Galvanism has been tried, with the same result; and amongst the extraordinary schemes ventured upon, I may notice that of endeavouring to stop the action of the hydrophobic poison on the system by the influence of another powerful animal poison, such as that of the viper. On this principle, vipers have been purposely suffered to bite the patient; but the plan, which was tried in Italy, had no useful result. Arsenical preparations, and the Tanjore pill, which was once so famous in India, as a means of preventing the fatal effects of the bites of snakes; the nitrate of mercury; turpentine; and thirty or forty other things which might be enumerated, have all been amply tried, and found to possess no real efficacy in hydrophobia.

In America, Dr. Physic was led to suspect that death was accelerated by a kind of suffocation, and that tracheotomy might be useful; but the suggestion has not been deemed worthy of much attention.

Gentlemen, I have now finished the subject of poisoned wounds, with the exception of those produced by *punctures or pricks received in dissection*. Whether these are poisoned wounds or not, is sometimes doubted; many intelligent surgeons incline to the opinion, that they are not poisoned wounds; believing that the ill consequences, observed in particular individuals who have cut their fingers in dissection, proceed from, or are connected with, some peculiarity of constitution. It must indeed be acknowledged, that nearly the same effects are often produced by common cuts, or other local injuries, in particular states of the system. Yet it is the general belief, that the bad symptoms truly arise from the introduction of a deleterious fluid into the part, and to this view of the subject I incline myself, without wishing to deliver too positive an opinion on the matter. I will state my reasons for taking the view which I do of these cases, about which, as surgeons, we must feel a personal interest.

First.—If the severe effects, occasionally following cuts and punctures received in dissection, are to be attributed to the mere local mechanical injury, how is it that we find them so common after the examination of the bodies of persons who have died of particular diseases. We know that wounds of the fingers, received in the examination of the bodies of those who have been destroyed by peritonitis, and especially by puerperal peritonitis, are more frequently productive of dangerous results, than similar wounds received while opening other bodies. This seems to imply, that the kind of matter introduced into the wound, makes the difference. Then it is known by all who are experienced in dissection, that cuts, received while dissecting a perfectly recent subject, are more dangerous than those which are received in the dissection of bodies considerably advanced in putrefaction. This is a curious circumstance, and admitted even by those who question the truth of the doctrine, that these are poisoned wounds; yet they do not appear to be aware how strongly the fact tends to subvert their reasoning on the subject. On the other hand, you will certainly see nearly the same consequences, brought on in particular individuals by ordinary pricks and cuts, where all suspicion of any *virus* or deleterious matter is wholly out of the question; and it is well known, that out of the great number of scratches and

cuts received in dissection, very few lead to any inconveniences. These circumstances, I should say, may furnish arguments against the doctrine, that the ill effects, when they do come on, are owing to the introduction of a *specific* poison; a notion refuted, I think, by the consideration, that in general the indisposition is in proportion to the amount of local mischief, and the disease has no determinate character corresponding to what is observed in the indisposition and effects arising from the operation of specific poisons on the constitution.

The bad consequences, following wounds received in dissection, are, in the beginning, uneasiness and festering of the wounded part, followed by pain and irritation in the course of the absorbents proceeding from it; then the patient generally has tenderness and swelling of the lymphatic glands, at the inner margin of the biceps muscle, or in the axilla, and sometimes in both these situations. If the disease advance further, fever takes place, phlegmonous erysipelas of the whole limb, and even of a great part of the side of the trunk ensues, or, instead of phlegmonous erysipelas, you will notice what has been termed diffuse inflammation of the cellular tissue, in which, as you know, the integuments are colder, and the skin less red, than in phlegmonous erysipelas. There is also no doubt, that phlebitis, or extensive inflammation of the large veins, is often an important complication.

Now, gentlemen, the treatment of the severe local and constitutional effects, following wounds received in dissection, is rather unsettled. Many practitioners, who consider the wound to be a poisoned one, make use of caustic in the early stage, administer stimulating medicines, especially ammonia, and recommend the patient to live well. They advise him to take wine and plenty of food, and to regulate his bowels. This is the practice commonly preferred in France, with the view of stopping the extension of the disorder to the system. In this country, the treatment is generally at first antiphlogistic; and, as far as I have been concerned with cases of this description, I have always pursued such practice myself, and, I think, with good effect. Low diet, venesection, leeches, and attention to the bowels, keeping the arm strictly at rest, and cold applications, are the principal means in which I place confidence. When the disease advances to a dangerous form of phlegmonous erysipelas, or of diffuse inflammation of the cellular tissue, then, of course, you must regulate the treatment by the principles most approved of in those affections, a subject which I need not repeat.

I have now, gentlemen, to speak of some *occasional consequences of wounds*, to which I have not yet directed your attention, and the principal of which are spasm and rigidity of the muscles, and various derangements of the system, seemingly dependent upon the nerves. I have already treated of the ordinary general effects of wounds, such as inflammation, suppuration, abscesses, and fever; but besides these usual events, you will see, in practice, that wounds sometimes lead to such disorder of the animal economy, as manifestly to affect the nervous and muscular systems in an extraordinary manner and degree. Thus, in certain individuals, a very trivial local injury—one that involves no part of importance—will give rise to violent disturbance of the nervous system. Some persons always faint on receiving a mere scratch, or the prick of a needle, while others are seized with convulsions and vomitings from equally slight causes. In several instances, I have seen patients die before the completion of operations, which would not have been at all dangerous to the generality of persons, or those who had the advantage of common stamina. I have seen individuals die on the operating table, though they had not been at all debilitated, neither had they lost much blood during the operation. Now, if such idiosyncrasies were foreseen, it would be advisable, I think, for the surgeon to direct a dose of opium, or some cordial, to be given the patient before the operation.

One of the most dangerous affections of the animal economy, occasionally produced by a wound, is *tetanus*, a disease that occurs with much less frequency in this country, and other parts of the world having a temperate climate, than in hot countries, where it is disposed to originate from slight injuries. Tetanus may be defined to be a spasmodic contraction, with rigidity, of the voluntary muscles. In some examples of it, only the muscles of one or more regions are affected; in others, the disorder extends its influence to the voluntary muscles throughout the system. The extraordinary contraction, rigidity, and tension of the muscles may be said to be maintained, without a complete relaxation at any time, in which respect tetanus differs from hydrophobia, as well as from ordinary spasms and convulsions. When the muscles, behind the neck and down the back, are thus stiffened and contracted, and the body drawn backwards, the disease is called *opisthotonos;* but when the action of the abdominal muscles preponderates, so as to bend it forwards, the disorder receives the name of *emprosthotonos*. According to Baron Larrey, who had many opportunities of seeing the disease when he was with the French army in Egypt, it appears that, in that country, when the wound was in the back, tetanus commonly assumed the form of *opisthotonos;* but if the wound happened to be in the anterior part of the trunk, and tetanus followed, it was generally in the shape of *emprosthotonos*. The reality of emprosthotonos has been doubted; but if you refer to Larrey's *Mémoires de Chirurgie Militaire*, you will find that, amongst the wounded of the French army in Egypt, this was actually the most common form of tetanus. Sir Gilbert Blane published two cases which agree with the Baron's statement; for, in them, the side of

the body on which the local injury was situated, became the seat of the tetanic affection. I believe that Sir Gilbert Blane's remarks preceded those recorded by Larrey, and that the two cases referred to were examples, in which tetanus was restricted to one side of the body, another variety, termed *pleurosthotonos*.

Tetanus is called *complete* when the muscles of the body at large are affected; that is, when the greater number of the voluntary muscles are spasmodically and rigidly contracted. When this is the case, the muscles antagonise and counteract one another, and the body is not drawn more in one direction than another. When the disease is confined to the muscles of deglutition, and to those of the lower jaw, it receives the name of *trismus* or *locked-jaw*.

Now, gentlemen, although I have stated, that the muscles in tetanus are in a state of incessant contraction, without complete relaxation, I do not wish you to understand, that there is no diminution of the violence of their rigidity. What I wish to say is, that there is no *complete* relaxation of them. In fact, inasmuch as the spasmodic action of these organs usually has paroxysms of increased violence, there must be periods, or intervals, during which they are less severely affected; yet they always continue rigid and hard—there is no complete relaxation of them; and the jaws being permanently closed, there is often the greatest difficulty in administering medicines, or getting food into the stomach.

Tetanus, gentlemen, is divided into the *traumatic* kind, or that which arises from wounds, and is particularly that form of the complaint which it is my duty to notice; and into the *idiopathic*, or that species of tetanus which originates from other causes, and usually constitutes one of the subjects treated of in a course of lectures on the practice of physic. Another important division of tetanus is into *acute* and *chronic*.

The acute is always exceedingly dangerous, and often fatal; but the chronic may frequently be cured, and, at all events, it is curable in a much greater proportion of cases, than the acute traumatic form of the disorder. Traumatic tetanus often comes on, and advances to its termination, in a surprisingly rapid manner. Thus, a case is recorded of a negro, in the West Indies, who died of tetanus in a quarter of an hour, from a slight scratch of the thumb; but, in general, its course is more gradual. It was found, by the surgeons of the British army in Spain, who saw a great deal of tetanus, that if the disease did not commence on or before the twenty-second day from the receipt of the wound, there was little chance of its coming on at a later period:—this is an important circumstance to be remembered. In Egypt, Baron Larrey found, that the latest period of attack was the fifteenth day from that on which the wound happened; but, in Spain, a few cases occurred as late as the twenty-second day. Traumatic tetanus frequently proves fatal on the second, third, and fourth day from its commencement, but sometimes even as late as the seventeenth. I had a soldier under my care in one of the military hospitals in Holland, who lived five weeks after the supervention of tetanic symptoms: this was a case of chronic tetanus, following a gun-shot wound and amputation of the thigh, at Bergen op Zoom; and certainly it was a horrible specimen of the effects of tetanus; for the muscles were drawn entirely away from the bone, which was left protruding far beyond the flesh, while enormous abscesses formed in the hollow of the stump, and made their way so extensively as absolutely to encompass nearly the whole of the pelvis. The deplorable state of this poor soldier I shall never forget as long as I live.

With regard to the symptoms of tetanus, gentlemen, I may inform you, that the first thing usually noticed is a sensation of stiffness in the neck, gradually increasing, and at length causing pain when the head is moved. This first symptom is followed by an uneasy feeling at the root of the tongue, with a difficulty of mastication and swallowing. When the disease has made further progress, the attempt at deglutition is attended with violent convulsive efforts; in particular, when the patient attempts to swallow liquids, he experiences much inconvenience, and in consequence of the pain and severe paroxysms of spasm, which then attack him, he will sometimes manifest a strong aversion to fluids, and thus his disease may bear a resemblance to hydrophobia. It was on this account, gentlemen, that, in the last lecture, I requested your particular attention to the characteristic differences between the two diseases. The next symptom, which the patient complains of, is pain about the ensiform cartilage, or a violent shooting pain, directed from that part towards the spine in the course of the diaphragm. This additional grievance brings on an increase in the violence of the spasms; and, in particular, the muscles of the lower jaw now contract with great power, so that the jaws remain inseparably applied to each other. As the disease continues, there is a marked increase in the spasmodic contractions of the diaphragm, which come on every ten or fifteen minutes, and are succeeded by extraordinary degrees of spasm, and rigidity of the muscles of the back, and also of those of the lower extremities. At length the abdominal muscles begin to be affected, and the belly feels as hard as a table: so violent is their action, that the recti abdominis have been known to be lacerated. The spasms next extend to the muscles of the lower extremities, and even to those of the arms; but the muscles of the fingers usually remain undisturbed till the last. Nor are those of the tongue affected till a very late stage of the disorder; and when this happens, the patient cannot control the motions of that organ, so that it is frequently thrust between the teeth and terribly lacerated. These muscular contractions are attended with the most excruciating pain during their at-

tacks; the pulse is contracted, hurried, and irregular; the respiration quick and oppressed; but, during the remissions, neither the pulse nor the breathing may be seriously disturbed. In the generality of cases the heat of the body is not increased; the urine is voided in small quantities, and sometimes with difficulty; and there is invariably obstinate constipation. As for delirium, and other symptoms of cerebral affection, they do not come on till the last stage; and, when the patient dies, it is generally in a paroxysm of violent convulsions. The blood has been asserted not to exhibit in tetanus the inflammatory crust, and the crassamentum is stated to be loose; but these are points which are variously represented by different writers. Wounds of every kind may produce tetanus; but lacerations of the thumb, and of tendinous parts, more frequently cause it, than injuries in any other situation. I have told you, that the disorder is most frequent in warm countries, where it arises from trivial causes: thus, Larrey mentions a French soldier in Egypt, in whom the mere lodgment of a small fish bone in the throat brought on the complaint.

CLINICAL LECTURES

DELIVERED BY

G. J. GUTHRIE, ESQ., F.R.S., &c.

At the Westminster Hospital.

SECOND LECTURE.

ON THE ANATOMY AND DISEASES OF THE BLADDER AND URETHRA.

The prostate gland is a substance of a tolerably firm consistence, and of a whitish grey colour, placed in immediate connexion with the orifice of the bladder, and nearly surrounding the first portion of the urethra. It is, in the healthy state, about fifteen lines in length; and has been compared in shape to the ace of hearts, or to a flattened chestnut, the base being turned towards the bladder, the apex forwards towards the urethra. When it is divided longitudinally, that is by an incision made through the bladder and urethra, the greatest portion will be perceived to be below the urethra, although there is a great difference in this respect in the various preparations before you. When the smaller or upper portion only is divided, and there is sometimes but little or even none above the urethra at this part, and the neck of the bladder is laid open, a strong raised white line is seen running from the uvula vesicæ, in the centre of the under part of the canal, having, from its being elevated, a slight hollow on each side of it; and which, line, as it proceeds, assists in forming an oblong body nearer to the apex of the prostate than to the bladder, called verumontanum, and from its resemblance to a cock's comb the caput gallinaginis. From the base of this elevation the white line runs again forwards, and becomes indistinct in the bulbous portion of the urethra. It appears to strengthen these parts, and connect them more intimately with each other.

The ejaculatory ducts open on the sides of this little elevation, which is composed principally of the mucous lining of the urethra; and on its upper part there is a lacuna, or hollow, called the sinus pocularis, which is sometimes so large as to admit the end of a small bougie to enter, but over which a rounder and larger pointed instrument passes readily, demonstrating to the surgeon the nature of the obstruction, and preventing a repetition of the accident; this circumstance is, however, of rare occurrence, the smallest bougie generally passing over, or rather by the side of the sinus pocularis, without being entangled in it. It is probable that the white line I have alluded to, by making a slight elevation in the middle, directs the small bougie into one of the hollows on either side of it. On the floor of the urethra, by the side of the verumontanum, you see the ducts of the prostate opening, generally about eight in number, on each side, and arranged in the form of a crescent; they are sometimes more numerous, communicate with each other before they open into the urethra, and have been enumerated as high as from thirty to forty. They are ducts leading from follicular glands, situated in the substance of the prostate, and are best shown by squeezing the recent part, when the secretion flows through them. The widest part of the gland is from side to side, there being nine lines from the centre of the urethra to its external surface in a well formed prostate; but if the incision be not made transversely, but diagonally outwards and backwards, it may be a little more.

The prostate in the fœtus is composed of two parts, each part consisting of two lobes, on which account, perhaps, it was, that the older anatomists called them prostates, in the plural number. Between the fourth and fifth month before birth the two internal lobes unite, and the gland is then composed of three parts; but these again, between the sixth and the eighth month, lose their separate form and become one substance. The base of the gland, or the part by which it is applied to the bladder is notched, or deficient, in the middle, and particularly at the under part, where it is much flattened, and in the median line depressed, which, together with the passage of the urethra through it, seems to divide it into two lobes. A little below where the notch terminates, the ejaculatory ducts enter; but they do so by perforating the gland at a part which is a little hollowed out, and not by passing between the lobes to reach the side of the verumontanum. The portion of the gland, nearer to the bladder than the ducts, forms a sort of bar or connexion between the two lateral portions, and this part

sometimes takes on different forms. There is only one preparation out of eighteen on the table in which it is rounded like a little nipple, but it sometimes does assume this form; and Sir E. Home thought it right, from this not usual appearance, to term it a third lobe. It was well known to previous anatomists: Mr. Hunter had not only described it in disease, but had a drawing made of it, which is now No. 123, Fig. 1 and 2, in cube 4, drawer 8, in the museum of the College of Surgeons; and which drawing Sir E Home had engraved.

It is a curious circumstance that the preparation No. 764 merely shows a small elevation at the termination of the band leading from the ureters internally, and that no examination was made to prove whether this was or was not a part of the prostate. It was assumed that it was so, and has been engraved accordingly. I have examined the preparation attentively, but the parts are so hardened by their long immersion in spirits, that the prostate could not be dissected, so as to show any thing like the entrance of the ejaculatory ducts into the prostate itself. The fact of an enlargement of the third lobe can only now be ascertained by dividing the bladder and urethra in their longitudinal direction: and I shall propose to the board of curators to do so, for it is rather unaccountable that such men as Mr. Hunter and Sir E. Home should have had drawings and engravings made to show disease in a part, which part was not examined in the only way by which the proof could be given that it was actually diseased.

There is another thing no less remarkable, and it is, that it is quite clear, from the remains of Mr. Hunter's papers, preserved in the college, that he had anticipated Sir E. Home on every point connected with this subject.

The prostate is applied above, and to the sides of the neck of the bladder, but is generally wanting at the under part, unless the bar uniting the lateral lobes, or, as it is termed, the third lobe, is unusually large. The under portion of the neck of the bladder is not then always surrounded by the prostate; and the uvula vesicæ, the crête vesicale of the French, is not necessarily connected with its third lobe, or with any other part of it. On the fore part and sides the outer or longitudinal layer of fibres of the bladder pass over the prostate; on the under part they generally stop short of it, but sometimes perforate its under surface. The middle layer and the elastic or superadded structure appear to be attached to it, whilst the mucous coat, which possesses no peculiar properties, seems only to be connected with it through the medium of the cellular texture uniting it with the subjacent parts.

It appears then that the following facts may be deduced from the preceding statements:—

1. That the elastic structure at the neck of the bladder may be diseased without any necessary connexion with the prostate gland.

2. That the prostate may be diseased without any necessary connexion with it.

The preparation I have placed before you is the most valuable one in my possession. It shows the elastic structure at the neck of the bladder diseased, without any affection of the prostate, and particularly of the third lobe. The patient passed his water with great difficulty, in consequence of the barrier formed by this unyielding structure, and died ultimately of the disease after much suffering. This case and dissection establish in the most clear and decided manner the fact I have been endeavouring to impress upon you, viz.—of a separate disease of the neck of the bladder, which has been hitherto considered as dependent on an affection of the third lobe of the prostate. To prove this has been the object in making all the dissections you have seen.

I am indebted to Mr. Andrews, of the London Hospital, for the diseased parts I now show you. I mentioned to him, at the Court of Examiners of the College of Surgeons, some of my views on these subjects, and he was so good as to promise me any thing that came in his way which might throw light upon them. It will give me pleasure to receive and to acknowledge assistance of a similar kind from others of my professional brethren; and if they have poor persons under their care with these complaints I shall be happy to take them into this hospital, or to do anything that may be agreeable to them. The French, in accumulating diseases of the same kind under the care of one person, often obtain more satisfactory results than we do, who have not the possibility of making such arrangement. I shall be glad to return the obligation with respect to other diseases in which I may not take the same interest, and with respect to which other surgeons may have some peculiar ideas, or modes of treatment.

In this preparation of Mr. Andrews's, the right lobe of the prostate is seen of more than twice its natural size; the left is a little larger than usual. When the bladder was opened, the orifice into the urethra was found dilated to the size of the end of the little finger, and perfectly round at its upper half, but this opening was nearly closed by the enlarged right lobe of the prostate which lay in front of it, and pushed the urethra to the left, whilst it had drawn up the mucous membrane of the bladder so as to form a bar across its under-part. This bar is quite membranous, and does not include the elastic structure, which is not diseased, neither is that part called the third lobe, nor is there any projection into the bladder, save the bar or valve formed by its mucous membrane at the very meatus. This patient was eighty years of age; had passed his urine with much straining, long previously to the last attack, which came on a few days before he died. The catheter was passed with considerable difficulty, and he sunk at his time of life, under the irritation

induced constitutionally. The bladder was very large and but little thickened, the transverse bands on the back part are particularly isolated and strong. In the oval hollow behind the triangular space there were fifty small stones.

In this case, the disease was exactly the reverse of the other, the prostate was alone affected, and the bar formed at the neck of the bladder, consisted of its mucous membrane, elevated and drawn tight across the under part of the opening, in consequence of its connexion with the prostate through the subjacent parts. If the prostate could have been removed, the mucous membrane forming the bar would have fallen back into its proper place. If this bar could have been divided, a great obstruction to the flow of urine would have been removed, and a proportionate relief obtained. When there is a third lobe of the prostate, and it is diseased and projects into the bladder, the elastic structure of this part usually partakes of the evil, forms a hard, firm bank, in addition to the nipple-like valve, and between them the retention of urine may become complete. This disease with its complication is much less curable than the disease of the neck of the bladder alone, and the necessity for a distinction between them is so much the greater, believing, as I do, that relief from this latter complaint is always in the hands of the surgeon.

In its simple or first stage, when there is only a defect of elasticity, it gives rise to stricture at the very neck or orifice of the bladder, curable by common means if properly applied. In its second stage, when the bar is formed and becomes more or less rigid, a small bougie rests against it, and if made of soft materials bends, and cannot be made to proceed; if a solid instrument, it passes in one of the hollows on each side of the white central line, which are also deepened by the elevation of the uvula vesicæ, catches on the valve at the entrance, and when the handle of the instrument is depressed, it raises it, bladder, rectum and all, upon its point, until the pain or the resistance induces the surgeon to forego the depression, or it may tear the valve, when it finds its way into the bladder; or perhaps the surgeon, not possessing much experience, is satisfied with the distance the instrument has gone in, and supposes he has passed it into the bladder. This is one of the evils which arises from the attention which has been paid to the length of the urethra with regard to inches only; for when a man is told that the urethra is often only eight inches long, and finds his instrument has passed perhaps more than nine, he may deceive himself, although his patient is not relieved. I had a gentleman from America under my care lately under these circumstances. He had never passed his bougie beyond the neck of the bladder, although he and his surgeon supposed they had done so. When I succeeded in doing it, he became sensible of the difference, and I desired him, on his taking leave, always to use in future a No. 12 catheter, with a very round point, that the passage of urine through it might convince him of the fact.

When the disease reaches its third stage, or that which gives rise to considerable difficulty and straining to pass water, and which cannot always be effected, many serious symptoms arise. These will be noticed in their proper places, but there are two I cannot refrain from mentioning, because they have not, I believe, received all the attention they merit, if indeed the symptoms have not been in some degree disregarded, or even overlooked.

When demonstrating the structure of the bladder, I drew your attention in one particular instance to the distinct manner in which the longitudinal and transverse fibres passed across each other at right angles, leaving small intervening spaces, filled up only by the mucous membrane, and the cellular tissue by which these parts are united to each other. When the elastic neck does not yield to the natural degree of pressure usually exercised by the coats of the bladder generally in consequence of its being the seat of commencing disease, they are called upon to act with a greater degree of vigour, and in certain cases during this augmented action, the mucous coat becomes distended by the urine, yields and protrudes externally between the muscular fibres; the commencement of an extra vesical pouch is thus formed, which goes on increasing, if the same cause continues which gave rise to it, until it attains considerable magnitude: the opening between the muscular fibres by which it began is usually of a small size, leading to a large cavity, into which a stone may pass, and be so shut up as to give rise to no further inconvenience. In other instances, the opening may be large enough and in such a situation as to admit of the stone being struck by the point of the sound, although it will not be as readily extracted after the operation for its removal has been accomplished. In all cases a quantity of urine may and will be retained in these pouches, and sometimes secretions may take place into them of a different nature from it, depending on the state of the membrane by which they are lined: in one case of this kind, after drawing off the urine by the catheter, and as I supposed emptying it, I found I could still get more by passing it in a certain direction, and in all probability into one of the pouches which are thus formed. This is, however, an accidental circumstance, which will be rarely met with. If the bladder be emptied by the catheter in the erect position, and the patient be made to change it by lying down, retaining the catheter in its place, an additional quantity may run from the instrument, showing that one or other of these pouches has been emptied. A gentleman consulted me on account of a difficulty he had in passing his water, for which he used an elastic catheter twice a-day, and sometimes thrice, with great

relief. But the symptom he complained of most, and for which he applied to me, was, that after emptying his bladder in the erect position on going to bed, he soon after felt as much desire as before to make water, and that on straining forcibly he could pass a little. I desired him to use the catheter a second time when he felt this uneasiness, which he did, and obtained about three ounces more water. This led to the belief that he had pouches in his bladder, which were only emptied by position. I wished him to ascertain what position emptied them, but he could not do this in a satisfactory manner, for a reason which appeared after death, namely, that there were several pouches, none of which could be emptied by the same position. He obtained considerable relief by first drawing off his water in the erect position, and then by lying down with the catheter in the bladder, and by changing his position from either side to his face (for these pouches rarely form on the fore part) he removed a further quantity, and after which he obtained rest, until the pouches and the bladder were refilled, and the desire to discharge his water again became considerable. If this be done in the morning, on rising, it does not give so accurate a degree of information, and must not be mistaken for a similar symptom, about which you may be consulted by persons who have no particular disease. It often happens, that at about fifty years of age the urine passes with less force and more slowly than formerly, although there may not be any perceptible or discoverable disease of the neck of the bladder. It has, perhaps, only lost a slight portion of its elasticity. It the person be very attentive to himself, he finds that he makes his water very well on rising in the morning; and that, during the time of dressing, he makes it once or twice in larger quantity. This may happen to any one at any age, and arises from the circumstance of the urine not being secreted usually to any extent during sound sleep, while the kidneys become after such state of rest, much more active on the person's moving about. It is not a sign of disease. The urine is also devoid of any offensive smell, which is rarely the case when it has been retained in pouches. In one gentlemen, the existence of one or more pouches of this kind became evident on injecting the bladder; twelve ounces of warm water could be thrown into it before much uneasiness was produced; but, on drawing it off, ten ounces only could be obtained, and rarely the whole twelve even by any change of position. In the preparation before you there are five pouches of different sizes; and there was one symptom in this case which I had met with in three others, without being able to account for it, and which may have depended on the same cause.

The first instance occurred in the York Hospital, at Chelsea, in the year 1816. The patient, a soldier, had been invalided for some complaint of his urinary organs, of which a stricture formed one. The removal of this did not much alleviate his symptoms, and on examination with the catheter, a smart blow was felt on the instrument, with the termination of the flow of urine, giving rise to the idea of a stone. This always took place, and sometimes the stroke seemed to be repeated twice, or even three times, although each time fainter than before. The first blow would sometimes force the catheter from between the finger and thumb when slightly held, and at least two inches out of the urethra. Many able surgeons saw this case, and several thought there was a stone in the bladder, some even advised an operation. It appeared to me and to my colleague, the late Mr. Morel, that the blow was deficient in the sound which a solid, hard substance gives, the *tick* as it is often called technically. The substance causing it could never be detected by the most careful examination after the urine had been evacuated, nor while the bladder was full, but only at the moment of its becoming empty; and I was led to the conclusion, that if there was a stone, it must be enclosed in a sac, and that it was the soft envelope which rendered the sensation communicated by it so obscure. The man was discharged.

In the second and third cases the sensations were the same, save that the little taps on the catheter resembled more the blows given by the wings of a bird in fluttering, so that I have been in the habit of calling them the *fluttering blows of the bladder* in my lectures, believing that they depended on some unusual action of the oval cavity of the fundus, or of the base of the triangular space acted upon irregularly by their own fibres, and by those passing perpendicularly and across by the sides of the neck of the bladder, and which have been considered as a sphincter. The last case I met with cleared up the difficulty. The blow was perfect in every respect save two, namely, the grate which a stone gives or ought to give to either a silver, a steel, or a gum elastic catheter, and the impossibility of finding it except when the last drops of urine were flowing. I examined the bladder several times very carefully, and even did it, allowing the urine to flow between the blades of the small calculus forceps, which were kept open to catch anything which might pass between them. The silver catheter received so smart a shock, that it was often forced out a couple of inches, and from between the fingers when held loosely, so that the patient himself could not help observing it, and asking the cause. I was never satisfied during his life that there was not an encysted stone in the bladder, although I was quite sure there was not a loose one. The examination after death decided the point; there was not a stone of any kind, and nothing peculiar save the five pouches, and the bar at the neck of the bladder formed by its elastic, but now rigid, substance, totally unconnected with the third or middle lobe of the prostate; and the peculiar

fluttering strokes of the bladder on the catheter, were caused, therefore, I have now no doubt, by the descent of the pouches containing urine, and therefore being more or less solid substances, they fell against the instrument, or were brought forcibly against it, by the muscular efforts of the bladder in contracting on the evacuation of the last drops of urine from its cavity.

When symptoms have given rise to the suspicion of the existence of a stone, and the fluttering strokes or blows on the instrument have been felt, I suspect it may have happened that the operation has been performed and no stone has been found. At all events, a surgeon may be forgiven for the mistake more readily in this case than in most others, and I therefore dwell upon it longer than it perhaps requires, in order to prevent such a misfortune from occurring in future. I cannot help thinking it has been the most common cause of such an accident; and when I hear and have heard, that although no stone was found, the patient, when he survived, was much the better for the operation, I am more satisfied that I am likely to be correct in my supposition. The good done by the operation was caused by the division of the bar at the neck of the bladder, and the consequent removal of the obstruction to the passage of the urine out of it; and I approve of a proper operation being done for this purpose in certain and peculiar cases to be hereafter noticed, but then the patient is not consenting to an operation, supposing it to be for the removal of a stone, and the surgeon is not relieving him by a mistake.

The prostate gland is bounded by some large veins, proceeding originally from the penis, and passing between the tendons of the bladder, where there are ten or more in number, and it is more particularly fixed by several fasciæ, and particularly the inner layer of the deep pereneal, and by the pelvic fascia. These, and the veins of the bladder, have special reference to the operations for the stone, and we shall refer to them in due time with that view. As some of you may not, however, be here when that time comes, I may say, that my principal observations on these points will be directed to show, that the infiltration of urine, and which I am disposed to say, is the principal cause of death, does not prove fatal from its having been caused by a complete division of the prostate, or of a portion of the bladder beyond it, but from its being penned or dammed up after it has been allowed to escape, by the levator ani muscle, and the deep fasciæ of the perinæum. It is the want of a proper division of these parts that is the real cause of death, and of course from a defective manner of performing the operation.

It is usually said, that the female has not a prostate but merely an erectile tissue surrounding the neck of the bladder, to which I do not assent. If the word prostate be used with reference to its derivation, as standing before the vesiculæ seminales, certainly a woman has not a prostate because she has no vesiculæ seminales, but if it be used as a substantive word, to express a particular thing, in the same manner as the words arteria innominata are now used as a name for a particular artery, which formerly had no name; then a female has a prostate, for there is a substance of the same shape, form, and nearly of a similar structure, surrounding the commencement of her urethra. It is the size of the prostate in a boy before the age of puberty; and resembles very nearly, in external appearance, the same part in the male. Here are the prostate and bladder of a boy of twelve years of age, and these two other preparations in spirits show the bladder and prostate in the adult female. One bladder is opened from the fore part, the other from the back part, to show how much of this substance lies before and behind the commencement of the urethra. There being no preparation in the Museum of the College of Surgeons, to show this natural structure, I have added them to the collection. You will observe, in these two recent dissections of the same parts, that the band, on which the ureters are situated, is less marked, as well as those descending from them, than in the males, but the elastic structure is equally evident. The ejaculatory ducts of the male, opening into the urethra, are of course wanting, and there does not appear either to be any ducts of the prostate, so that, perhaps, this substance may be considered, in the female, to be destitute of the follicular or glandular structure, which gives the additional bulk to the male. The fibres of the bladder have the same arrangement in the female as in the male, and I am, therefore, induced to believe, that the prostate gland in the male has at least three offices, viz. 1. to stand before the orifice of the bladder, and give it and the urethra, which it surrounds, support, and a point more or less fixed, upon which it may act in expelling urine; 2. to secrete a fluid peculiar to itself; and 3. to receive secretions from other parts; which two latter uses I do not attribute to it in the female, and the want of which may account for the difference of size in this part in the two sexes. At all events, it shall, gentlemen, be our will and pleasure, until further orders from the critics, to give the ladies an organ which they have not hitherto been supposed to possess, but whilst we call it the female prostate we will hesitate in adding the word gland.

Anterior to the prostate, the urethra is termed membranous for a space something of about or rather less than an inch, being the part between it and the bulb, and is the portion which passes under the pubes. This preparation shows the pubes with its descending rami, the subpubic ligament, and that portion of the deep pereneal fascia attached to it, which together form the triangular ligament of Camper, as it is termed, and through which the urethra passes, the size of which opening of transmis-

sion is distinctly seen. The bulb of the urethra lies in front and in connexion with this fascia, the membranous part of the urethra, which I am alluding to, behind. It is the part I now show, and to which I beg your attention particularly, there being some points connected with it deserving your especial notice, inasmuch as they are new, or have not been hitherto distinctly stated. It was called membranous, I presume, from the ease with which the canal might be isolated from its surrounding investments, when compared with these portions which pass through the prostate behind, and the corpus spongiosum before, as well as from the thinness of its proper coats when thus deprived of its usual coverings. This part, although thin, has always been known to be surrounded by muscular fibres as a probable compensation, and the older anatomists, such as Winslow, Bartholin, Santorini, Gerardi, and others conjectured that they were capable of acting as a sphincter to the bladder, although situated thus anterior to it. The ideas of these anatomists, both as to the situation, structure, and functions of these muscular fibres did not receive all the attention they perhaps deserved, and in abandoning the idea of these fibres acting as a sphincter, modern anatomists seem to have attended but little to the subject.

[*Mr. Guthrie here gave a description of the muscular structure of this part from several recent preparations and from drawings; this we defer until next week, with the hope of being able to give some wood engravings, which will render the explanation more intelligible.*—Eds.]

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

At St. Thomas's Hospital, Session 1833.

Colica à plumbo et paralysis—Use of Purgatives—Efficacy of the Muriate of Morphia in allaying the Spasms—Bronchitis—Peripneumonia — Anasarca — Rheumatism — Chlorosis—Gastrodynia—Phthisis—Extensive Disease of the Kidneys, Ureters, and Bladder: also of the Mucous Membrane of the Stomach and Intestines.

Gentlemen,—I was unable, from want of time, at my last lecture, to call your attention, as I had intended, to a case of very severe colic from the poison of lead, with slight paralysis of the extensor muscles of the fingers and wrists, which was admitted into Jacob's Ward on the 16th of February last, and which is still in the house on account of the paralysis, although the affection of the bowels has entirely ceased.

It occurred in Michael Anderson, aged 30, a worker in a white-lead manufactory. When admitted, stated that he had been ill four days, suffering under most severe pain in the stomach and bowels, coming on in paroxysms more acutely, but is in constant pain in the intervals; has had frequent vomiting from the commencement of the present attack; finds some alleviation by bending the trunk forward on the pelvis, and by pressing the abdomen with his hands, and sometimes by lying on his belly; has had no stool for four days; complains of great pain in the upper extremities, with numbness and want of power of the hands and fingers; pain in the region of the heart, with occasional palpitation; considerable pain, too, in the back, hips, and thighs; countenance pallid, dull, and anxious; pulse 78, full and strong; tongue foul. Has been two or three times similarly attacked, but never so severely, he thinks, as at present.

When I first saw him, I found that he had been bled from the arm to a pound, and taken ten grains of calomel a few hours before, by Mr. Whitfield's direction. The symptoms, however, not being relieved, I ordered him to be put into a warm bath directly; and that you might witness the effect of purgatives only in a severe case of this disease, directed two drops of croton oil to be given every three hours until the bowels acted. The report in the evening states, that he rejected the pills from the stomach shortly after each dose, the bowels not having been acted on, and the other symptoms continuing the same. Mr. Whitfield therefore ordered him a castor oil injection. The report next morning states, that the injection shortly returned, without producing any fæcal discharge, and that he had been in racking pain through the whole night. Mr. Whitfield then ordered him (having omitted the croton oil) ten grains of calomel, with one grain of opium, directly, to repeat the warm bath, and to have an injection of infusion of senna with sulphate of magnesia. The report of the next day (the 18th) states, that he found great relief while in the bath; the injection had brought away a very small quantity of lumpy feculent matter, and for a short time he thought himself rather easier The symptoms, however, soon returned as severely as before, and Mr. Whitfield judged it right to repeat the bleeding from the arm to twelve ounces, and also the purgative clyster. The bleeding appeared to afford some relief, but the clyster produced no stool, and was therefore repeated in the evening: this brought away another very small portion of feculent matter, and was attended by some temporary diminution of pain. But when I saw him on the next day, the pain was quite as severe as before; the abdomen tense and knotty, particularly about the caput cœci, somewhat retracted towards the spine, and experiencing great pain on pressure; pulse full and strong, somewhat, but not much, quicker than before. Excepting the very small quantity of fæces brought away by the clyster, he had now had no stool for eight or nine days; fearing therefore, from the tenderness of the belly, that

inflammation might be commencing, I directed twenty-four leeches to be applied to the abdomen, and to be followed up by a blister, and one grain of the muriate of morphia to be given directly for the purpose of allaying the spasm, and eight grains of the extract of colocynth, combined with two grains of calomel, every four hours after, until the bowels acted. In half an hour after taking the muriate of morphia the spasm and pain of the bowels entirely ceased, leaving only some soreness on pressure; and after the fifth dose of the purgative pills, the bowels were freely operated on, and discharged a large quantity of hard, solid, lumpy fæces; directly after this he lost the tenderness on pressure.

It was afterwards only necessary to keep his bowels freely open, and for this purpose I ordered him half an ounce of castor oil twice a-day, with one drachm of the tincture of hyoscyamus, the latter being only given in order to prevent the recurrence of the spasm, and was selected in preference to opium, on account of its not constipating. At the end of two days, the bowels being considerably acted on, it was only necessary to give it once a-day; and as there was no disposition to a renewal of the spasm, the hyoscyamus was discontinued, and he now only takes the castor oil occasionally if the bowels should be sluggish; and for the paralysis of the fingers and wrists he is at present only using electricity, by means of sparks, from which he has already found benefit.

Now, this was a well-marked case of colic from lead, more severe in consequence of his having been before the subject of the disease. Most commonly it commences with more or less of the ordinary symptoms of dyspepsia; for a few days before the colicky symptoms show themselves; sometimes, however, it commences with colic, as in this case; for I could not learn from him that he had had any previous derangement of the stomach. The pain in the back, hips, upper and lower extremities, is remarkably characteristic of the poison of lead; indeed, I never remember to have seen a severe case without it, while the palsy of the fingers and wrists more strongly denoted the cause; this latter symptom, however, is not necessarily always present in colic from lead, even in the acute form of the disease, more especially if it be the first attack; but it is rarely absent when the patient has previously been subject to the disease. Occasionally we find paralysis of the muscles also of the lower extremities in invetcrate cases, but most commonly it is confined to the upper; and it is curious that the extensor muscles are those which are chiefly affected, the flexors often being scarcely, if at all, affected. Why this should be the case I am quite unable to say. This palsy of the muscles is accompanied by considerable emaciation; and the wasting of the muscles, as well as the diminution of strength, is most apparent in the muscle of the thumb and fingers. The position of the hands and arms are quite a diagnostic symptom—their constant dangling. The pulse, you will observe, was at first only 78, though it was full and strong; this was another indication that the disease was then only spasmodic.

It has been stated by a celebrated French physician, "Mérat sur la Colique métallique;" that the pulse in colic from lead is very seldom quicker, but on the contrary, that it is often slower than natural: this certainly does not agree with my own observations. Formerly, when I was physician to the Carey-street Dispensary, we were surrounded by plumbers, painters, and glaziers, and cases of the disease were continually occurring; and I should say, that in those cases where the frequency of the pulse was altered, that it was much oftener quicker than retarded.

With respect, then, to the treatment adopted in the present case, you observe that Mr. Whitfield, on his admission on the 16th, took away a pound of blood, and repeated the bleeding to twelve ounces on the 18th. Perhaps you will say, why bleed when the disease is merely spasmodic? and, indeed, some physicians have condemned the practice, as being not only uncalled for, but injurious. In my opinion he did perfectly right; the disease had existed four days, the spasm was very violent, and the pulse strong and full; and you must recollect, that in all cases of colic, whether from lead or other causes, there is a tendency to the production of inflammation and thus to terminate in enteritis; and it was my knowledge of this probability, that induced me to apply the leeches and blister, as precautionary measures, at the same time that I gave the morphia. I believe, too, that colic from lead is more prone to take on an inflammatory character than colic from other causes. I have seen several examples of this, and one some years ago, which terminated fatally, and where the post-mortem examination clearly proved the disease to have taken on an acute inflammatory condition. Well, then, where the pulse is full and strong, the spasm very violent, the skin hot, or the face at all flushed, I should never hesitate to bleed; I have never seen any harm from it, while, on the contrary, I am satisfied that I have done much good by it, and lessened the spasm, while I prevented the occurrence of inflammation.

Next, as regards purging, you will remember, that, by Mr. Whitfield's direction, he had taken ten grains of calomel, and that, when I saw him, an hour or two afterwards—wishing you to see the result of purgatives alone—I ordered two drops of the oil of croton every three hours, till stools were procured, with the warm-bath; well, the calomel was taken, and several doses of the croton oil, but without producing any benefit, no stool was procured, on the contrary, the stomach was rendered more irritable, and vomiting occurred after the repetition of each dose. The oil was then omitted, clysters were employed, and then ten grains of calomel, with one grain of opium,

were given, and the warm-bath repeated, stil there was no material mitigation of the symptoms; the spasm still continued; the bowels still refused to act, no motion having been passed, but the very small quantity produced by two of the clysters; it was after this that the second bleeding was employed, and followed by a repetition of the purgative clysters; the bleeding I have no doubt was of service, as a means of preventing inflammation, but the symptoms, in other respects, continued the same, and when you saw him with me the next day, you will no doubt recollect, that the symptoms were as severe as when he was first admitted; feeling, then, satisfied that it was quite useless to administer purgatives any longer, until the spasm was lessened, I ordered him one grain of the muriate of morphia immediately, and two grains of the compound calomel, with eight grains of the compound extract of colocynth every four hours till the bowels did act. Now, this was a beautiful example of the powerful influence of a full dose of opium in checking spasm. In less than half an hour after taking the morphia, he states that his belly was perfectly easy, and, after the fifth dose of the aperient pills, the bowels were fully and freely acted on. I wish most particularly to draw your attention to this as a practical fact; that although in many of the milder forms of colic, whether arising from lead or other causes, active purgatives alone may be often sufficient to overcome the spasm and relieve the bowels, still, in the severer forms of the disease, you will find it useless, or worse than useless to rely on them alone; you may give them, but they will only be kicked off from the stomach by vomiting, or if they remain will most probably aggravate the spasm. I would recommend you always, in such cases, to give a full dose of opium, four or five grains, or even more at once, and then, when the spasm has ceased, and not till then, begin with purgatives. Of course, if inflammation is at all suspected of being present, bleeding will be necessary at the same time, though still, if spasm continued, I would not hesitate to give opium at the same time I abstracted blood. In such cases, morphia, or its salts, are preferable to opium, from being less nauseous, and given too in less bulk, especially when the stomach is irritable.

I remember being called by a highly respectable practitioner, some four or five years ago, to see a most severe case, which occurred in a master painter at the north end of the town; he had been suffering under the disease many days; the pain was exquisite; the vomiting constant; and the constipation of the bowels most obstinate: he had been bled freely, both generally and locally; had taken drastic purgatives every two or three hours; warm-baths had been repeatedly used; clysters had been injected three or four times a-day; blisters had been applied; and, when I saw him, he was suffering under severe ptyalism, from repeated doses of four or five grains of calomel, given every three or four hours, with from half a grain to a grain of opium, but without the slightest abatement in the symptoms, the vomiting was still as urgent as ever, the bowels as strongly affected by spasm. Now, I had recourse to pretty nearly the same plan of treatment as in the case of Anderson. I ordered five grains of opium to be given directly, and then gr. x. of the compound extract of colocynth every three hours after, until the bowels acted. I did not order calomel to be combined with it, in consequence of his mouth being already so sore. Well, the result was similar, the dose of opium was sufficiently strong to allay the spasm, and, after a few doses of the colocynth, the bowels acted, the vomiting ceased, and he had nothing to complain of excepting weakness and a very sore mouth; he had been taking opium before, you observe, but not in a dose sufficiently large to make a decided impression. The warm-bath is a highly useful remedy in this disease, not only from its tendency to relax spasm, but as a means of relieving those pains of the back, hips, and thighs which harass the patient so much; in Anderson's case, it afforded great relief in this respect.

When the bowels have been freely opened, and spasm has ceased, then the mildest purgatives should be selected for the purpose of keeping them open, as the more drastic are not unlikely to cause a return of the spasm; if the stomach will bear it, castor oil is the best for this purpose, and I think it is better to combine it with hyoscyamus; if the castor oil is not sufficiently active, then I have found it advantageous to combine small quantities, as from thirty to forty minims, of ol. terebinthinæ with each dose of it.

Unless as an aperient, I do not think mercury is of any service, and if the spasm is very severe, so much may be taken without any effect on the bowels that ptyalism takes place, and only subjects the patient to an additional source of distress.

In the palsy of the wrist and fingers, I believe electricity to be the most useful agent we possess, in conjunction with strychnine, though I should place the far greater dependence on the former agent. The patient ought to be allowed a generous diet, and, as when an individual has once suffered from the disease, he is more susceptible of repetition; he ought to change his occupation.

The disease may be, to a great extent, prevented by strictly adhering to habits of cleanliness and frequent ablution, the food should never be taken in an atmosphere impregnated with lead, the linen ought to be frequently changed and washed, and painters would do well to wear gloves while at work.

During the last week, five of my patients were discharged from the hospital, and there have been two deaths. Of the five patients discharged, three were males and two females; of the males one was a case of chronic bronchitis, upon which peripneumonia had super-

vened, and attended by general anasarca; one was a case of congestive, or inflammatory paralysis, and one of slight rheumatism.

Of the two females, one was a case of chlorosis, the other gastrodynia with pyrosis and slight bronchitis.

Of the two deaths, one was a case of tubercular phthisis, the other most extensive disease of the kidneys, ureters, and bladder, and also of the mucous membrane of the stomach and intestines.

The case of inflammation of the bronchi, complicated with inflammation of the substance of the lungs, and general anasarca, was admitted on the 22nd of last November: it occurred in William Hurley, aged 48, who stated, when he first came in, that he had been ill only four weeks; that, after exposure to cold, he had been suddenly seized with cough and dyspnœa, quickly followed by swelling of the legs and whole body; the cough was very frequent; expectoration copious and rather frothy; difficulty of breathing very great; and complained of pain at the lower part of the sternum; had occasional palpitation of the heart; could lie on either side, but was easier on the right; great thirst; tongue moist, but coated with white fur; pulse 76, full, and bearing great pressure; respiration loudly sonorous over the greater portion of the chest, and in some parts sibilous, distinctly heard at the lowest part of either side in any position; distinct crepitation on the posterior portion of the right lung, below the right scapula; no lividity of lip; urine scanty, and very albuminous; no pain on pressure over the region of the kidneys; no unnatural sound over the region of the heart.

Now from the dyspnœa, the frequent cough and expectoration, it was very clear that there was inflammation of the lungs. By the stethoscope I found sonorous or sibilous rattle over almost every portion of the chest; and therefore I knew that the whole of the bronchial membrane was inflamed; but in one spot, and over a considerable space, there was distinct crepitation, and consequently I knew that in that part the substance of the lung was inflamed. The dropsy was, I believe, merely the effect of the congested state of the lungs, and is a symptom frequently attendant on bronchitis, and often disappearing as soon as the bronchial membrane is restored to its natural condition. While the albumen in the urine did not appear to arise from anything more than functional derangement in the kidney, I made pressure over each organ, and he experienced no pain in the lumbar region, and is what we very frequently meet with in inflammatory dropsy; it was quite clear that there was no effusion into the chest, by the respiration being distinctly heard at the lowest point on either side.

Now, with regard to the treatment, he was bled in the first instance to twenty ounces from the arm, with immediate relief to his breathing, and took five grains of calomel three times a day. The next day, as there was still crepitation, the bleeding was repeated to a pint; and afterwards he was two or three times cupped between the shoulders, or from the sternum, and had blisters to the chest. The mercury speedily affected his mouth, and very severely; but the crepitation vanished; the respiration became much less sonorous, the urine less albuminous, and the anasarca greatly diminished. After the mouth became sore, he took a quarter of a grain of tartar emetic every four hours for some days; but, as the salivation continued, and was not lessened either by the chloride of soda or the liquor plumbi subacetatis dilut., I ordered him one drachm of the sulphur lotum every six hours: this relieved the ptyalism very quickly; but after taking it eight or ten days it was discontinued on account of diarrhœa.

Sulphur is an old remedy in the treatment of mercurial ptyalism, and many are, I believe, disposed to laugh at it; and, I confess, that fourteen or fifteen years ago I was disposed to do so myself: since then, however, I have seen so many cases in which the affection of the mouth has resisted every other means in succession, and has yielded so readily to the washed sulphur, given in doses of from half a drachm to a drachm three or four times a day, that I am satisfied that it is entitled to our confidence, and that the cessation of the ptyalism was not merely post hoc but propter hoc. How the sulphur proves beneficial I have no hesitation in confessing that I don't know;—it is a purgative we know; but still it has not appeared to me that its beneficial effects could be fairly attributed to that quality, because other more active purgatives had been given, had acted freely, but had not lessened the ptyalism. You must not, however, mistake me, I do not mean to tell you that it is a specific; I merely intend to say that you will often find this useful when all other means have apparently produced no effect;—try it and judge for yourselves.

Well, under this plan of treatment there was no crepitation, the urine exhibited no trace of albumen, and for a time the anasarca had entirely disappeared; and the respiration, though loud, was often without any sonorous sound. Still, from time to time, it again became slightly sonorous, and again the legs became somewhat œdematous, and I was convinced that the bronchial membrane had become altered in its structure, thickened; an effect which I should not have thought likely had his original account been true,—that he had only been ill four weeks before he was admitted; but upon now pressing him, he confessed that he had been the subject of cough for a much longer time; but, as he was enabled to work, did not think that worth mentioning. This is often the case with hospital patients, and renders it necessary to cross examine pretty closely in order to arrive at the truth.

Under these circumstances, not wishing to

abstract more blood, he was treated with diuretics, squill, digitalis, acetate of potass, and spirits of nitric æther occasionally in combination; though sometimes omitting both the fox-glove and squill, according as the effects of each manifested themselves on the stomach (which was irritable,) or the heart. For a time these were of service; but at length the diarrhœa returned, and they were omitted altogether, being obliged to resort to astringents. When the bowels and stomach were no longer irritable, as the cough and sonorous respiration continued at times, he took an emetic every morning for some time, and at first with temporary advantage; but at length he got tired of this remedy; and as there was no active inflammation going on, the tincture of lobelia inflata was given with advantage; commencing at first with a small dose, increased it to twenty minims, from that to thirty, forty, forty-five, and fifty, which was the largest dose he could bear; and under this plan of treatment his cough lessened, his breathing was less sonorous, and he gained flesh, and was able to move about without difficulty; and was comparatively so much improved that I discharged him on the 6th of this month, satisfied that medicine will do no more for him. He will be better most likely in warm weather, and even now was sufficiently recovered to get his bread, his occupation not being laborious; but still he will never be well; and I should fear that the heart will become ultimately hypertrophied, in consequence of the obstructed circulation through the lungs.

Perhaps there is no disease more rarely cured than general chronic bronchitis of long standing, if you reflect on the immense extent of the membrane, and how often we find its structure changed,—either thickened or softened; and that it is perpetually called on for the performance of its functions; you will readily see how unlikely perfect recovery should take place under such circumstances.

The case of phthisis was admitted on the 21st of February, in the last stage of the disease. Pectoriloquy was heard distinctly at the anterior and superior part of the right lung, a little below the clavicle. He died on the 3rd of March, ten days after admission. The body was inspected: the lungs were full of tubercles in every stage, especially the right lung; and an oval cavity of considerable size found under the part where pectoriloquy had been heard.

The parts which I am now about to show you were taken from a patient that Dr. Elliotson admitted at his last taking in on the 28th of February, and was sent to my ward. I was unable to see him until the 3rd of March, and must therefore state the symptoms as they appear in the case book;—being too feeble to give his own history his wife furnished the statement.—George Collard, a shoemaker, aged 35. His wife states that about a year ago he began to pass gravel and blood in his urine, and continued to do so for about seven months, after which it ceased. During the whole of this time his general health was good; he made no complaint, suffered no pain; but he lost flesh; about seven weeks ago he began to have cough, not violent, unattended with pain, some expectoration, but not much; he still made no complaint, was able to work, his appetite continuing as it always had been, very good; but he was still becoming more and more emaciated; has, indeed, made no particular complaint up to this time (the time of admission).

At present he appears exceedingly weak; the countenance anxious; pulse 76, very small and weak; tongue red, glazed, dry, and fissured; has difficulty in swallowing, but there is no apparent soreness of throat, no desire for food; the whole of the abdomen is hard, and feels knotted; the skin dry, but not hot; complains of pain when any part of the belly is pressed; his wife states that his bowels had been open this morning *once* before his admission, but that they had not before been relieved for eight days. Appears very dull and disinclined to speak, but says he is not in any pain; for some months past he has been subject to fits of shiverings, followed by heat, occurring at irregular times.

Being dirty, and the skin being cold at the time of admission, a warm bath with soap was ordered by the apothecary, a dose of castor oil was also directed to be given; his diet to be milk, arrow-root, and tapioca, with a pint and a half of beef tea daily.

The report of the next day, March 1st, states that the bowels were once moved by the castor oil; motion lumpy, containing no mucus or blood; his night had been bad and sleepless; had much pain in the belly in the morning, but which had been relieved by a mustard poultice; pulse 112, small, and very weak; tongue same as yesterday. The castor oil was ordered to be repeated in the evening. The report of the next day, March the 2nd, states, that on the preceding evening vomiting and purging came on, for which he was ordered ℥ij of the hydrocyanic acid every hour, with half an ounce of mucilage of acaciæ every two hours; this morning he is somewhat relieved; hot and cold fits alternating during the whole night, and he was occasionally slightly convulsed; the stools were dark coloured and offensive; *urine high coloured*, with a copious *red sediment*; pulse 84, rather fuller, but still very feeble; tongue red and dry, with a black scale over the fissure in the centre; ordered half an ounce of wine every four hours, with five grains of the sulphate of quina.

On the next morning, Sunday, he had hiccup, and a return of the rigors, but not followed by heat; there had been no return of purging, nor vomiting; the abdomen was still hard, tense, and knotty, and painful on pressure. A mustard poultice was again ordered to the abdomen, and to be repeated in the evening; and as the pulse still continued very

feeble, the quina and one ounce of wine was continued every four hours; in the evening he became delirious, and was so at intervals during the night.

The next day, Monday, March the 4th, he appeared to be not quite sensible; said he had no pain; lies with his eyes half open; respiration quick; pulse 68, small and feeble; an injection had been given early in the morning, but without bringing away any stool; has passed none since Saturday night.

The injection was ordered to be repeated, and the wine to be increased to one ounce and a half every four hours.

On this night the urine, which was very small in quantity, was thick, turbid, and apparently mixed with pus; from this time very little change took place; he became quite sensible, and died early in the morning of Tuesday.

It is curious that the only symptoms of disease of the kidney was exhibited during the first seven months of the twelve, and then only through the urine being bloody, and by a gravelly deposit; the last five months no symptom denoted disease of these organs; no pain in the loins, no numbness of thigh, no retraction of the testes, no vomiting, no colicky pain of bowels.

Now the symptoms as manifested on his admission, and which I have just read from the case book, and which were just those which I found, when I first saw him the day before his death, were those of chronic inflammation of the mucous membrane of the alimentary canal, with most likely disease of the mesenteric glands. The glazed, red, and fissured tongue; the tense, knotted, and tender abdomen; the dry and harsh skin; the irregular bowels, and the feeble pulse, led me to consider that such was the condition of those tissues, and I unhesitatingly stated my belief to the gentlemen present, but at the same I declined writing on the ticket at the bed's head, because I was really ignorant what other organs might be affected.

Well, then, on examining the body, we found the superior lobes of both lungs containing many small hard tubercles, but not sufficiently numerous or active to interfere with the function of those organs; the heart natural; the liver and spleen healthy; the mesenteric glands were indurated and enlarged, though the enlargement was not very considerable; there was congestion in the greater portion of the mucous membrane of the stomach, but particularly in its great curvature just opposite the cardiac orifice, where it was very considerable; the same state of congestion extended in patches throughout the mucous lining of the small intestines, but it was intense in many parts of the large, especially in the cæcum, and a little above the sigmoid flexure of the colon; there was no ulceration, but there was some softening of the membrane, though not much. So far then I was right in the opinion I had given as to the state of those tissues, but upon examining the kidneys, we found the left immensely enlarged, nearly the whole of its structure broken down, and converted into a mere bag, filled with flaky scrofulous pus. You will observe (showing it), that there is not a portion of the left kidney capable of performing its function; it is an admirable specimen of scrofulous abscess of that organ. You will observe, too, that the only solid portion consists of a whitish dense substance, which is clearly tubercular, and which Dr. Baillie states to be so rarely found in the kidney that he had only seen one example of it; if you examine it, you will see that it exactly resembles the specimen of hard white tubercle which we found in the liver of a patient the other day, and it has the same character as that of the small hard tubercles found in this man's lungs: the lining membrane of the pelvis is thickened, and covered by dense layers of scrofulous matter; the ureter enormously distended, and its coats greatly thickened throughout two-thirds of its length from the kidney, and then suddenly diminishing to less than its natural size; on opening the ureter, you observe that it is completely plugged up by a thick scrofulous deposit, and upon scraping it off, you see the lining membrane corrugated, thrown into folds, so as to resemble the valvulæ conniventes of the small intestines; this ureter is so completely plugged that it is quite impervious, and has been so for some time. Well, then, the right you observe (showing it) is also most extensively diseased; the same scrofulous abscesses are to be seen here, filled with a similar flaky purulent fluid, but still there is in this organ some portion of the natural structure remaining, the only portion, small as it is, which could be capable of discharging its function. This ureter you see is pervious, but still its coats are greatly thickened, and you find a considerable deposition of the same flaky matter on its lining membrane, and the same corrugated appearance.

The bladder you observe is also much diseased; all its coats thickened, the organ itself contracted, and its mucous membrane covered by exactly the same deposit as we find in the ureters.

I have never seen both kidneys so extensively diseased as in this case, and you will do well to bear in mind that all this destruction may go on without the occurrence of any symptom to lead you to suspect those organs as being the seat of the disease. If his own and his wife's statements are to be depended on, it was only during the first seven months of his illness that any symptom of affection of the kidney was manifested, and then only through the bloody urine and gravelly deposit; he denied then having any pain in the back, or any of the ordinary symptoms of nephritis; it is curious, too, that within twenty-four hours of his death his urine, which was scanty in quantity, was clear and high coloured, it was only the evening before he died, (fourteen or fifteen hours before) that it became purulent; the fits of shivering to which he

had been occasionally subject for some months, were no doubt referable to suppuration of the different abscesses.

If you look at this plate of Dr. Baillie's (showing it), and this also of Dr. Carswell's, and compare them with the kidneys before you, you will see that the representation of either author is perfectly correct. I will not detain you longer to-day.

REMINISCENCES OF AN ARMY MEDICAL OFFICER.

PART II. CHAPTER I.

In this way passed "a winter in London." When I said that I learnt nothing there*, I made a mistake, for I learnt that *the hymen* does exist occasionally in females; a question which has been much agitated among physiologists. The demonstration was furnished in the following manner.

A female subject, aged apparently about twenty-four, and without the slightest degree of emaciation, was brought to the dissecting room, (evidently taken from the grave,) in which this membrane was found entire, a fact to which there were, of course, many competent witnesses, among others the demonstrator of anatomy, who is now in the very first rank of the profession; and this is not the only instance in which *I know* that *the hymen* has been found perfect in females at so late a period of life as forty. Its presence is strong presumptive evidence against the perpetration of a certain capital offence, while its absence, even in very early life, is no ground for coming to an opposite conclusion †.

The season was thus got through, principally in the occupation of dissecting. I was in the meantime, however, anxious about my destination; for I had three courses before me, and (inexperienced as I was) I found it a difficult matter to choose. Some influential friends had a meeting on the subject, and their idea was that so young a man could not make his way in private practice as a physician, having neither fortune nor *professional* patronage, by which latter it is well known that some of the most eminent members of our cloth have been lifted up. They therefore considered that I could not do better than go abroad for a few years. But how was this to be effected? The whole world was then (1810) at war with us; and the *grand* as well as the *petit tour* was a thing by this time almost forgotten. *Italy* was shut against us; *France* was as mysterious a country (to English comprehension) as the *Sahara* itself; though our indomitable arms had still kept open the *Peninsula* and the island of *Sicily*, while we assumed to ourselves the liberty of sailing about the Mediterranean, and, here and there, *knocking at a door* upon either side of the way.

The only method of carrying the plan into execution which these gentlemen could devise, was my entering one of the branches of the public service. I had the navy and the East India Company's service *recommended* to me; for in either I could have had powerful patronage. Had I gone into the Company's service, I might have pushed my way in Bengal, as a collateral and useful civilian, which is often the case with studious officers of either army, more especially, however, (I have been given to understand,) among the King's than the Company's, though these are prepared previously by studying oriental languages and economy. Then, as to the *Navy*, I should have been placed under the immediate notice, and recommended to the especial patronage of a noble lord, then in commission as an admiral, upon whose quarter deck I should, unquestionably, have been welcome to take a turn. In the army I had no prospect but what might arise from distinguishing *myself* by knowledge of my duty, and assiduity in discharging it.

In this dilemma I consulted a gentleman to whom I had been personally

* See conclusion of Part I.

† I remember a case of alleged stuprum in a child of ten years, where no violation had ever been *attempted*, in which a medical man maintained the contrary *because there was no hymen!* Dr. Ryan can corroborate this.

introduced ere I left Edinburgh, a retired physician to the forces, no less a man than the late Dr. Wright, who introduced the practice of cold affusion in continued fevers *. This worthy and philosophic gentleman had already expressed his opinion of me, in terms at least sufficiently commendatory, and he favoured me with all the information I asked, as well as with a letter to the new director-general of the army medical department, with whom he had been on intimate terms in the *West Indies*. I decided, as I need hardly tell the reader, for the *army;* and my reason for so doing was the following: I never took the *scarlet coat* (which is much more brilliant in appearance than the blue jacket, especially when mounted with epaulettes,) into consideration. For the East Indies, fool, perhaps, as I was, I had an insuperable repugnance; not on account either of distance or danger, but I had some idea of being uselessly sweltered, and bringing back some day, should I survive long enough, *hepatic* ballast sufficient for a ship. As to the navy, my objection was founded upon ethical scruples; and I declined that opening, lest, in the event of my being associated with obnoxious companions, I might not have it in my power to get away from their society. In the army it is otherwise. We can generally have a solitary walk or ride, and in barracks, each officer is master of a separate apartment, to which he can at any time retire.

Having accomplished what has been described, I repaired with my testimonials to Berkeley-street, and upon presenting my letter to the late director-general, (Mr. Weir,) he asked me, in a tone which was somewhat at variance with the expression of his countenance †, "How is my old friend?" alluding, of course, to Dr. W. It was evident that he considered me to be a fresh arrival from Edinburgh; but, upon explaining to him that I had not seen Dr. Wright for several months, and that I had been dissecting during the winter in town, he observed that this was a circumstance much in my favour, if I really designed to enter the army. I thereupon assured the venerable director-general, that such was my immovable determination, provided I should be deemed qualified. "Qualified!" he exclaimed, in his characteristic blunt way, "qualified! if we don't find *you* qualified, where are qualifications to come from? Dr. Wright would never have sent you here had he not ascertained your qualifications. You have saved half the battle by having his good word."

It was necessary, however, according to the regulations, that I should present myself at Surgeons' Hall, by order of government, and I there underwent a serio-comic examination, some particulars connected with which are reserved for next chapter.

* See Dr. Currie's (of Liverpool) celebrated "Medical Reports, &c." To the subject of *cold affusion* we shall have occasion to recur hereafter.

† Which, as well as his manner, was rather forbidding.

Reports of Societies.

WESTMINSTER MEDICAL SOCIETY,

Saturday, April 27.

Dr. Jewel in the Chair.—The subject for discussion this evening was Factory Labour, brought forward by Mr. Malyn, in a remarkably well-written, and indeed eloquent, paper. Mr. Greenwood, Dr. Copland, Dr. Sigmond, Mr. King, and Professor Burnett, were the principal speakers, but of course the subject admitted of very little practical information on medical science.

All the members joined in reprobating the system. The appointment of the commission for inquiry did not appear to be very popular; any attempt, however, to discuss its merits was most pertinaciously opposed by one or two members, who seemed to consider that nothing should be brought

before the Society that was not strictly *Esculapian*.

It was suggested, that some expression of the feeling of the Society should be embodied in a petition to Parliament, but this, it seemed, did not come within the scope of the by-laws, and it was therefore abandoned.

This was the last night of a session which, if it has not been distinguished for the same exuberance of animation as the preceding one exhibited, has afforded much practical information, and has maintained the reputation which the Westminster Medical Society has most deservedly gained. It is, however, to be regretted, that the discussions this year have rarely called forth any rising talent; they have been almost entirely confined to the old and hackneyed debaters. It is true that hence more valuable matter has been given; but it nevertheless proves, that without some fresh vigour is imparted to the Society it must decline. There are certainly some able speakers and men of talent amongst the vast additions that have been made within the last two years, and we want to hear "their most sweet voices" in preference to some of those to which the ear has been too long accustomed.

ZOOLOGICAL SOCIETY.

THE annual meeting of this interesting and important Society took place on Monday, at the theatre of the Royal Institution in Albemarle-street, Lord Henley, president, in the chair. The business of the day consisted in the election of officers for the ensuing year, and the reading of the annual report. The principal change amongst the officers was the substitution of Mr. Bennett for the late excellent and indefatigable honorary secretary, Mr. Vigors, who having been elected a member of the House of Commons, for the County Carlow, felt himself unequal to the discharge of the duties that devolved upon him in the office he has from the commencement so ably filled. The annual report gave a very satisfactory statement of the finances of the Society. It appeared, however, that there had been a diminution in the receipts from visiters to the Gardens, in comparison with the preceding year, of 216*l.*, but this was to be attributed to the prevalence of disease. The addition to the number of Fellows during the year was 318; there were thirty-two deaths, and forty-two resignations; amongst the corresponding members, whose loss was to be deplored, were Cuvier and Latreille. It was announced that in future the annual subscription to new members would be 3*l.*, and the composition fee 30*l.* The Committee of Science having fulfilled the expectations of the Council, it had been determined to enlarge it, so as to embrace all the members of the Society; and general meetings, at which papers should be read, and objects of importance detailed, would in future be held on alternate Tuesdays in each month. The addition to the menagerie had been great, though not of any very striking importance; but it was to be expected that as during the first years the most valuable objects of zoological science would be obtained, it could not be expected that subjects of new interest could every year be discovered. It had been decided that the farm at Kingston should gradually be reduced, and every step was taking for its final abandonment. On the conclusion of the address, in compliance with a motion previously made, a discussion arose on the subject of closing the Gardens on Sunday until a certain hour; the majority of the members was, however, against any restriction.

THE APOTHECARIES' COMPANY.

WE are highly gratified at the fact, that government have resolved to destroy the monopoly of the Apothecaries' Company, and are pledged to introduce a measure to remedy the oppressive and unjust statute relating to that body.

THE
London Medical & Surgical Journal.
Saturday, May 4, 1833.

THE CHARING-CROSS HOSPITAL.

Amongst the excellent institutions which have within a very few years been founded in this metropolis, we know none which more deservedly claims the assistance and support of the medical profession than the Charing-Cross Hospital. It was originally a small dispensary in Suffolk-street, and was afterwards carried on in Villiers-street, under the name of the Royal West London Infirmary. It has now risen up into a hospital; and one wing of a building, which, when completed, will hold nearly three hundred beds, will shortly be opened for the reception of patients. It already affords relief to a considerable number of out-patients. This institution has silently and unostentatiously proceeded on its march, and holds forth the promise of becoming a most valuable addition to our public hospitals. The medical officers, who have been its indefatigable promoters, have on no occasion thrust themselves before the public; on the contrary, whilst it was well known that they were its chief support, they evidently kept themselves retired, lest it should be imagined that they sought only a stepping-stone for their own interests: and they must enjoy the highest gratification from seeing that they have both succeeded in the object they had in view, and have at the same time gained the good opinion of their medical brethren. They have, however, still much to accomplish, not only in putting the establishment on a sound and honest foundation, but also of rendering it a useful and well regulated school.

Although the funds have been found ample for the building a large and handsome edifice, yet it is of course an object of great importance that there should be collected a sum for its future support. And this, doubtless, will be a matter of some difficulty; for such an undertaking demands more money than in these times of universal poverty can easily be obtained. We have seen, with much anxiety for its success, an advertisement for a bazaar, and we hope that the medical profession will do all in their power to forward the views of the governors.

At one period, great doubts were entertained of the possibility of building a new hospital; they have, however, fortunately been proved to be erroneous. We now hear fears entertained lest the establishment should not be able to be carried on. It remains, therefore, with the liberal and benevolent to prove that the exertions that have already been made are estimated, and that the public will not allow the labour that has been employed to be thrown away.

DEATH OF DR. BABINGTON.

We have with deep regret to record the death of an individual who deservedly obtained a high station in the medical world. Dr. Babington

was originally a surgeon in the navy, he then became apothecary to Guy's Hospital, he afterwards took a degree as Doctor of Physic at a Scotch University, and then practised as a physician with great success. He was among the first who applied chemistry to medicine, and overthrew the old system of pharmacy. He assisted to establish medical chemistry on a more solid foundation. He was the companion of Priestley, of Lavoisier, of Pearson, and the great chemists of the day, He was admitted a Fellow of the Royal Society, to whose Transactions he was a contributor. The College of Physicians, as if to show its inconsistency, elected him, in his old age, a Fellow, although they had rejected two other ornaments of the profession,—Mason Good, and Hooper, on the grounds of their having practised as apothecaries, although these latter gentlemen actually went to Cambridge to take degrees. Dr. Babington was an amiable and excellent man, and will be lamented by a number of professional men who were admitted to his friendship, and by the public at large, as a loss not quickly to be supplied. He died on Monday evening, of influenza, at the advanced age of seventy-six.

THE INFLUENZA.

The prevailing epidemic is now rapidly declining, though, we regret to state, that it continues to destroy a vast number of the aged and the infirm. It has been extremely fatal to those who were long subject to winter cough, or chronic bronchitis. In such individuals it generally excited a copious secretion from the bronchial mucous membrane, which, as the debility advanced, accumulated in the chest, and induced suffocation. It often excited inflammation of the lungs in those predisposed to chest complaints, and in many instances has laid the foundation of consumption. We regret to perceive, that it has extended to the country, where it is proceeding with equal violence. At first it is slight, and considered so trivial as not to require medical treatment, and this error has led to the destruction of a vast number of individuals. In some instances, we have known the disease extremely slight at first, but in a few hours requiring the most energetic treatment. The stethoscope has been of inestimable service in enabling practitioners to form accurate opinions on the extent of mischief in the chest.

ILICINE IN AGUE.

Dr. Sigmond stated, at the Medico-Botanical Society, that he had tried the ilicine, which had been sent from Paris, in three cases of intermittent fever, but as yet he had found it inferior to quinine. He observed, that few cases of ague had presented themselves this spring, the prevailing epidemic seeming, as was generally the case, to put a stop to the usual diseases of the season.

KING'S COLLEGE.

It appears, by a meeting of the Proprietors, that there has been a considerable increase in the number of students in the various departments; in consequence of the appeal to the public 6,339*l.* had been received, including a munificent bequest of 1000*l.* from Mrs. Duppa; still, however, a further sum of 8,000*l.* will be required to complete the new building, and another appeal must be made to the liberality of the public. The auditors felt it their painful duty to state, that the amount of the original sub-

scriptions, which remained unpaid, amounted to nearly 14,000*l.*; this last announcement was received with general disapprobation. Some harsh measures were proposed to be enforced to obtain these subscriptions, and it was determined to take the opinion of the law-officers of the crown.

CONVERSAZIONI OF THE ROYAL COLLEGE OF PHYSICIANS.

THE invitation to tea and bread and butter at the edifice in Suffolk-street does not seem to be accepted with that cordiality which the kindness of hospitality generally deserves. The Licentiates probably do not feel disposed to bow down before their Fellows.

On Monday evening a dull and dismal collection of medical gentlemen assembled; and to add to the melancholy gloom there was no paper read, no classical commentaries were heard from the President, no essay from the Fellows, no communication from the Licentiates. The conversation was confined to a few comments amongst the members upon the number of fees taken during the preceding week by the fashionable few, and the advantage of an epidemic to the lovers of the *guinea* trade.

MEETING OF MEDICAL PRACTITIONERS AND STUDENTS AT THE MEDICAL THEATRE, GERRARD-STREET.

Petition to Parliament against the present mode of electing Medical Professors, Lecturers, Hospital Physicians, Surgeons, Assistant-Surgeons, and Apothecaries.

DR. GRANVILLE, F.R.S., in the chair.—The chairman very eloquently described the bad effects of the present mode of electing medical professors and teachers, as well as the physicians, surgeons, and apothecaries to our charitable institutions. He exposed the system of nepotism, favouritism, and private interest, contrasted it with that of public examination or concours, and clearly demonstrated the injury inflicted on science and humanity by excluding talent. He expatiated at considerable length on the excellence of the continental plan of election, which fostered genius and merit, and stimulated every medical student to pursue his education with ardour and zeal, as his acquirements were sure to be rewarded at some future period. In this country acquirements and experience were entirely overlooked at medical elections. The ablest physician or surgeon had not the slightest chance of success as a candidate for any hospital, infirmary, or dispensary, if the medical officers had any relation or apprentice to fill up the vacancy.

Mr. Dermott followed the same line of argument, and very energetically reprobated the present system.

Several resolutions were unanimously passed, to the effect that the existing plan of medical election was radically bad, and that a petition to Parliament should be prepared and presented.

A committee was then appointed to revise a petition read to the meeting; and it was finally resolved that advertisements should appear in the three weekly Medical Journals, calling another meeting, to be held at Saville House, Leicester-square, at twelve o'clock, on Tuesday next.

"MEDICAL ADVANTAGES."

[A VALUED correspondent has favoured us with the following plan of medical reform, which must astonish our readers.—We give it verbatim. We have seen two similar hand-bills by members of the College of Surgeons, who had them distributed from house to house; and we are astonished at their names being allowed to disgrace the College list.—EDS.]

"In order to do away with any kind of illiberality and opposition, the French Doctor has determined to offer the following advantages to the public.

"Dr. Simon, surgeon, &c, No. 35, Gerard-street, Soho, begs to state that he receives patients afflicted with any complaint incident to the human frame, but particularly the diseases of women and children.

CONDITIONS.	*Fee.* s.	d.
Patients attending from half-past 8 to 10 any morning . . .	1	6
Patients attending from 10 to half-past 11	2	6
Patients attending from 11 to 1 .	5	0
And at any hour or place, by appointment . . .	10	0
The French Doctor attends patients at their houses (*provided it is not too far*) for	5	0
Medicines (*within his reach to prepare*) given to his patients free of expense.		

"Surgeon Simon performs every kind of minor operation, (on terms to suit every one's means), such as cupping, on his improved principle; the abstraction of teeth, the removal of corns, injecting the ears and other organs, peculiar applications in deficiency of hearing, and affections of the eyes, &c. He also abstracts poisons or other fluids from the stomach, with his self-acting instrument, which he has applied successfully in *four* cases of *poison* (*recorded*) in Dublin.

"Any respectable person applying personally to the French Doctor, will be allowed to view his beautiful and extensive collection of philosophical apparatus, and surgical instruments (several of which are of his own invention,) and with which he has given lectures to the faculty.

"The French Doctor, though *but* a native of France, "as it is said," has resided more than sixteen years in Great Britain, and his wife and children belonging to this country, ought, he thinks, to do away with any kind of prejudice against him as a foreigner: he has also practised *ten years* in Dublin, and possesses the most respectable qualifications from the Dublin Lying-in Hospital, &c. and is a member of the Royal College of Surgeons in London."

DIAGNOSIS OF EMPYEMA.

Notwithstanding all that has been written on the diagnosis of empyema, as drawn from physical signs, yet every student, and indeed many practitioners, must have felt the extreme difficulty that exists in certain cases in determining on the existence of a sero-purulent fluid in quantity, within the cavity of the pleura. The importance of a correct decision of this question, whether we consider the safety of the patient, or the reputation of the physician or surgeon, of course adds to this difficulty, which I have often felt to a painful degree. If the following observations be found to remove the difficulties of this diagnosis in any case, I shall consider myself fully rewarded.

The diseases with which empyema, as to its physical signs, may be confounded, appear to be the following:

Enlargement of the liver, particularly of the right lobe, by which the diaphragm is pushed upwards.

Hepatization of the lung.

Extensive effusion into the pericardium.

In most cases, then, it will be among these four affections, *empyema, hepatic enlargement, solidified lung*, and *effusion into the pericardium*, that the practitioner, in his diagnosis, will have to decide.

Now when we compare the two sides of the thorax, we shall find that there are much fewer difficulties in detecting an empyema in the left, than in the right side, for the following reasons. In the first place, when the effusion is at all extensive, we have the remarkable and nearly unequivocal sign of displacement of the heart, which, under these circumstances, often pulsates at the right side of the sternum; while the displacement from the disease on the right side, only occurring when the effusion is very great, and being in the opposite direction, is of course less striking; and indeed may be

often wholly overlooked. In the second place, the sign of dilatation of the side has much greater value, when observed at the left, than at the right side. In fact, in the cases where a want of symmetry exists between the sides, the right is almost always the larger: so that, when we find a dilatation of the left side, the value of the sign is of course increased, just as the value of broncophonia, as a sign of disease, is greater in the left than in the right lung, from the greater *natural* resonance at the right side.

Thirdly, when the disease occupies the left side, we escape all the embarassment which the possible existence of hepatic disease causes in the diagnosis of an empyema of the right side. The volume of the spleen being so much less than that of the liver, its effect in modifying the phenomena of the thorax is very slight, and even when it is enlarged, the increase of volume takes place much more at the expense of the abdominal than the thoracic cavity, for reasons which are easily appreciated. It is right, however, to remark, that some cases have been observed in which an enlarged spleen produced a more or less extensive dulness in the lower portion of the left side, and Andral has shown that such may occur without a distinct tumour in the left hypochondrium. A great enlargement of the left lobe of the liver has been found to have produced the same effect; see a case in the Journal Hebdomadaire, vol. vi. 1830; such cases however as these are comparatively rare.

Empyema of the right side.—It has long appeared to me that the difficulties of this diagnosis have not been sufficiently dwelt on in medical works, and I can say, that even at the present day, the disease is commonly mistaken for chronic hepatitis. *I know of numerous cases, where, on dissection, the liver was found not enlarged, but merely displaced by an empyema, the existence of which had been wholly unsuspected during life.* It is easy to understand how this mistake should be often committed; if we look at the symptoms there is a considerable similarity between those of a chronic pleuritis and a chronic hepatitis. The patient complains of a pain in the lower portion of the side, with a sense of weight; a dry cough; there may be an icteroid tint; there is a tumour in the right hypochondrium, and dilatation of the side. All these symptoms may be caused by either affection, and in such a case too many practitioners, acting on the prejudice of the day, could see nothing but a profound hepatic disease. Again, if we consider the most evident physical signs, similar difficulties will be found to exist. Both diseases produce a tumour in the right hypochondrium, with dilatation of the side; both cause dullness of sound on percussion in the lower portion of the right side, and feebleness, or absence of respiration, without resonance of the voice, so that in many respects the symptoms and physical signs are so very similar, that the diagnosis is one often of extreme difficulty. I trust that the following observations may, in some cases, be found to throw light on the question.

We shall suppose the patient presents the following group of symptoms and signs. The right side is dilated, and the patient feels a sense of weight in that situation. There is a tumour, evidently hepatic, felt in the right hypochondrium. The lower portion of the right side of the chest, both anteriorly and posteriorly, sounds dull, with absence of respiratory murmur, bronchial respiration, or resonance of the voice; all these, as we have seen, may arise from either affection. Now if the case be one of enlarged liver, we shall observe the following circumstances.

1. Although the side is dilated, yet the intercostal spaces and ribs present their usual relations, and *hence we have a marked dilatation, with the hollows of the intercostal spaces*

distinctly marked. This contrasts strongly with the smooth rounded appearance of a side dilated by an empyema*.

2. The tumour in the hypochondrium is either an enlarged or a displaced liver. If it be the first, we find the tumour presenting a continuous surface and feeling of resistance from its most prominent portion, to where it can no longer be traced under the ribs, the lower margin of which seems tilted out. But if it be a displaced liver, *we find, between its most convex portion and the edge of the false ribs, a sulcus, evident to the sight and to manual examination, presenting much less resistance, and evidently the result of the space left around the point of contact of two convex bodies, one the upper portion of the liver, the other the most prominent point of the depressed diaphragm.*

The grounds on which I put forward this observation are, first, the fact of my finding it admirably verified on a patient lately in the Meath Hospital, who laboured under an empyema of the right side, and in whom, on his recovery, the hepatic tumour, i. e. the displaced liver, *rapidly disappeared, with the return of clearness of sound, and the occurrence of extensive "frottement" over the lower portion of the left side;* and secondly, the result of injecting fluid into the cavity of the pleura in such quantity as to displace the liver, when it will be found that, as might be expected, we shall observe a similar appearance of the hepatic tumour. The best apparatus for this purpose is a Read's syringe and flexible tube; the opening in the chest (the best situation for which seems to be the supero-anterior portion) should be surrounded by wax, which has been poured into it in a fluid state. In this way great quantities of fluid can be injected into the pleura, so as to cause extreme pressure on all the surrounding parts; and if the belly has not been previously distended, and if the muscles are not rigid, the peculiar appearance of the hepatic tumour can be studied easily. If we now open the abdomen the liver will be seen pushed downwards, and to the left side, from the pressure of the convex diaphragm, at the right of the broad ligament. Of course the direction of the inter-lobular fissure is altered; it now passes obliquely across the mesial line, and where this could be felt during life, it would, of course, be an additional diagnostic.

In these cases of mere displacement of the liver, the size of the tumour, of course, never exceeds the natural volume of the organ. This can be ascertained by measurement, and the pleximiter. In a single case I was enabled to verify the diagnosis both of empyema and enlarged liver. The signs of empyema were unequivocal, particularly the dulness over the sternum, a point to which I shall return in the course of this paper; but the size of the abdominal tumour was so much beyond that of the ordinary volume of the liver, that there could be no doubt of the enlargement of this organ. The fluid in the thorax made its way externally, after the occurrence of an enormous anthrax in the postero-inferior portion of the chest, and the patient sunk after the discharge of vast quantities of fluid, and the occurrence of pneumo-thorax by external fistula. On dissection the liver was found nearly three times its natural size.

Another distinction, which I have found applicable in many cases, is drawn from the consideration, that when an extensive empyema exists, sufficient to dilate the chest and displace the liver, the right portion of the diaphragm no longer descends during a forced inspiration; for two reasons; one, the non-expansion of the affected lung, the other, the fact that it has already not only attained, but passed the line which its con-

* See Report of the Meath Hospital, Dublin Hospital Reports, vol. v. This difference in appearance is evidently the result of the pressure being in one case caused by a solid, in the other by a fluid.

traction could attain; *it has become permanently convex in the opposite direction.* Hence on the patient's taking a deep breath, there is no descending motion of the lung. Now the reverse of all this occurs in cases of enlarged liver, *and we shall often find that in this case the postero-inferior portion of the right side, which was dull on percussion during ordinary breathing, becomes clear when a deep inspiration is performed.* In the case of empyema, the contraction of the diaphragm on this side (supposing it did occur) would have the effect of increasing the extent of dulness over the posterior portion of the chest, in fact there would be an increase of dulness upwards. But in the case of enlarged liver, the contraction of the diaphragm (which we know does occur) diminishes the extent of dulness, causing increase of dulness downwards*.

The last point to which I shall allude, as distinguishing empyema from enlarged liver, is connected with the mode of displacement of the heart, when such an occurrence is observed. In consequence of the pressure being exercised, in these cases, in different directions, this viscus assumes a different situation in both. When the displacement is caused by an empyema, the pressure being lateral, and the liver being depressed, the displacement, as has been long known, is towards the left side, without any remarkable ascent of the organ in the cavity of the thorax. But when an enlarged liver is the cause, the displacement is from below upwards; and we have seen cases where the heart was found to pulsate as high as the third rib.

Such are the observations which I have to offer on the diagnosis of these affections. It is plain, that two of the most important of them, namely, the condition of the intercostal spaces, and the appearance of the hepatic tumour, may be found inapplicable in certain cases; as where the patient is very fat, or anasarcous; or, lastly, where there is a complication with enlarged liver. These, however, are rare cases. The three following observations apply to the diagnosis of disease in either pleura, and, like the former, possess the value of being applicable even to those who are unacquainted with the use of the stethoscope.

When the hand is placed on the chest, while the individual who is the subject of observation is speaking, we feel a vibration on its surface, generally strong in proportion to the depth of the voice. When the stethoscope is applied, the natural broncophonia is audible. Now, it has been long observed, that when the lung is solidified, the broncophonia is increased, and we have accordingly often been enabled to point out the most diseased portion of the lungs in cases of phthisis, by merely applying the hands over the scapulæ while the patient was speaking. Now, the same resonance of the voice, and corresponding vibration, are heard and felt in cases of hepatisation of the lung from pneumonia, but do not occur at all in cases of empyema. The rule, therefore, is, if on placing the hand over the affected side, and making the patient speak with a tolerably loud voice, we feel a strong vibration in the part, the case is not one of empyema. It is plain that this will not assist us in the diagnosis of empyema from abdominal tumours, but it will do so from other diseases of the chest. How far the occurrence of an adhesion, sufficient to give bronchial respiration, may influence this result is still to be investigated. This very simple and valuable observation I owe to Mr. A. Hudson, my clinical clerk, from whose knowledge and acumen I have derived the greatest assistance in my researches.

The sound produced by the rubbing together of two serous surfaces, when in a state of disease, has been accu-

* It is scarcely necessary to remark, that this source of diagnosis is not available in cases, where, from the distension of the intestines, the descent of the liver is prevented. The indication in such a case is obvious.

rately described by Laennec under the term "*Frottement,*" or the sound of friction. This he states to be audible, in cases of effusions of air, beneath the pulmonary pleura, as in emphysema of the lung, and also in cases of dry pleurisy, observations which have since been fully verified. Collin also declared, that in certain cases of pericarditis, where the surfaces of the serous membrane were only separated by an effusion of lymph, a similar phenomenon was observable, a statement, to the truth of which I shall presently bear testimony. It occurred to me in two cases of pericarditis, not only to hear this sound of *frottement* most distinctly, but also to feel a manifest rubbing of two rough surfaces, one on the other; and having observed many cases where the sound of *frottement* occurred in dry pleurisy, in several of which the diagnosis was verified by dissection, I determined to try whether, as in the cases of pericarditis, I could actually feel the rubbing of the two rough surfaces of the pleura, when in an analogous condition, and can now state with confidence that this can be done, and that the sign may be so plain as not to be mistaken by the most inexperienced person.

The first case in which this was observed was that of a man who was admitted labouring under a scrofulous abscess at the lower portion of the sternum, and also presenting all the signs of an extensive effusion into the right pleura, evidently the result of a chronic inflammation. There were displacement of the liver and heart, dilatation of the side, elevation of the intercostal spaces, absence of respiration, and complete dulness. This patient recovered rapidly after the employment of a revulsive treatment. Clearness of sound returned, and at this period a distinct frottement became audible, from the spine of the scapula downwards. On placing my hand over the postero-inferior portion, I found, that when the patient took in a deep breath, the friction of the rough surfaces was most evident. Many of the class satisfied themselves of it, and, indeed, the sensation was perceptible to the patient himself. In the course of a few days these phenomena gradually subsided, and the patient was discharged cured: since then we have been able to feel the friction in other cases.

This observation is of value, as indicative of the removal of the fluid parts of the effusion, and of course the progress towards cure. It strikes me, also, that by this means we shall be able to trace the organisation of the false membrane. It is obvious, that the subsidence or cessation of this feeling of friction can occur but in two cases; one, the effusion of fluid so as to separate the pleuræ; the other, the organisation of the lymph. If, then, we observe its cessation, while, at the same time, the chest continues on percussion clear, we have an indication of the latter occurrence.

This principle we shall find is also applicable in the diagnosis of the progress of pericarditis. Although the value of percussion has been long recognised in the diagnosis of empyema, yet I do not find that the following observation has been hitherto noted. It is of importance, as assisting in enabling us to distinguish between empyema and solidified lung.

When one lung is solidified either from pneumonia or tuberculous development, we find, that the portion of the thorax immediately corresponding to the seat and extent of the disease sounds dull. But as in solidification there is no increase of volume, we can understand how, in the case of extensive solidity of one lung, that the half of the sternum corresponding to the affected side should be dull, while the other remained clear. In other words, that on one side of the mesial line of the sternum there would be clearness, while on the other the sound would be dull. Now, this is what really occurs; but we find the very reverse in cases of extensive empyema. Here the affection of one side produces not only dulness of the whole sternal region, but even beyond it, the ob-

vious result of the displacement of the mediastinum. Dulness of the whole of the sternum, and even for some distance beyond it, is, then, a characteristic of copious effusion into the pleura.

The last observation which I shall make on this subject, relates to the sign of dilatation of the side. This has been described as always occurring in the early periods of the disease, and gradually increasing until the process of absorption commences. But I believe that we may meet cases of empyema *with a contracted side, from the very commencement of the disease.* I have seen one of these, and have received the description of another drawn up by Mr. William Hamilton, which occurred under the care of Mr. Cusack.

In both these cases the disease arose from an injury of the chest. In the first, the patient received a musket-ball in the left inter-scapular region, which perforated the lung, and lodged anteriorly, close to the insertion of the diaphragm. This patient suffered exquisite and increasing pain from the time of his wound to the period of his death, which occurred in a little more than a fortnight after the accident. The slightest attempt at extension of the side brought on such suffering, that he constantly kept himself bent down to the left side; and when I saw him, the side was nearly two inches less than the opposite one. This circumstance, together with the occurrence of a bronchial respiration in the postero-inferior portion, caused great doubt in the minds of some of his attendants, as to the existence of an empyema. I determined, however, that the case was of this description, from the circumstance of the heart being displaced, and pulsating strongly at the right side of the sternum. The operation was performed, but was unsuccessful, in consequence of the operator being misled by the great contraction of the side, and making his incision too low; in fact, the knife entered below the diaphragm. The patient sunk on the following day; and, on dissection, a vast collection of matter was found in the left pleura, which was extensively covered with coagulable lymph. The ball had divided the lung from above, downwards and forwards, and its trajet was greatly dilated by the effusion, and lined also by lymph.

In the case drawn up by Mr. Wm. Hamilton, the patient had suffered a fracture of the fourth, fifth, and sixth ribs; had exquisite pain of the side, and total inability to extend it. This man, after twenty-four hours' suffering, presented all the stethoscopic indications of copious effusion. He was ultimately discharged, but throughout the whole of his disease, the side was contracted. The facts of this case, as recorded here, may be fully relied on. Mr. Hamilton's attainments in stethoscopic investigation are a sufficient guarantee for their accuracy.

If the foregoing observations on the diagnosis of empyema be found to assist the practitioner in its detection in any case, I shall feel more than rewarded, and it is scarcely necessary to observe, that their value is increased from the diagnosis founded on them being attainable even by those who are not versed in auscultation. — *Dublin Journal of Med. and Chem. Science, March* 1833.

THE ANODYNE METALLIC OR GALVANIC BRUSH.

(*Scopula Anodyna Metallica.*

Annales Scholæ Clinicæ Medicæ Ticinensis.

Auctore Francisco Nob. Ab. Hildenbrand, M.D., Papiæ, 1830.)

Under this name, Francis Ernest Von Hildenbrand, Professor of Pathology and Practice of Physic at Pavia, describes a remedy rather singular, for the cure of various neuralgic affections. It consists simply of a bundle of metallic wires, (*fascis e filis metallicis confectum,*) not thicker than common knitting wires, firmly tied together by wire of the same material, so as to form a cylinder of about

four or five inches long, and one inch or three-fourths of an inch in diameter. This is applied to the pained part, previously moistened with a solution of sea-salt, when it produces relief so instantaneous, it is said, that it appears to the patients like the effect of a charm. Occasionally the pain is immediately entirely extinguished, with the accompanying effect of a peculiar sense of emanation from the spot to which the brush is applied, causing the patients to believe that the pain is truly extracted by this method. On withdrawing the brush, the uneasiness occasionally returns, but in a more endurable form. The longer the application is continued, the more decided is the effect obtained; and phenomena so singular have resulted from its application, as even to astonish intelligent persons, quite on their guard against any magical illusion.

In illustration of the remedial effects of this agent, Hildenbrand mentions the following case, which he designates as altogether singular and wonderful. A man of 30, a porter by occupation, afflicted with violent periodical *tic doloureux* of the face, (*metopodynia,*) was admitted into the Clinical Wards of Pavia. On applying the metallic brush over the left frontal nerve, the pain immediately disappeared from that one, but fixed on the corresponding nerve of the right side, which had been previously free from pain. The very moment at which the brush was removed from the left frontal nerve, the pain returned to its original seat, and there remained, though already remarkably abated in intensity. By applying a metallic brush to each supra-orbital nerve simultaneously, the professor banished the original nerve-ach of the left side, and at the same time prevented it from appearing in the opposite one. The same moment, however, a humming noise arose in each ear, and this also immediately ceased on the brushes being removed, when the nerve-ach returned immediately, though in a very mitigated form.

In order to obtain the desired effect from the use of the anodyne brushes, Professor Von Hildenbrand impresses the necessity of determining, as accurately as possible, the nature of the *neuralgia,* or the pathological state of the affected nerve. If the pain is merely *nervous,* that is, proceeding from subversion of the equilibrium between the *dynamic factors of the sensitive life,* as the Professor, in imitation of his father, expresses it, without material changes having taken place in the affected part, in which case it attacks periodically, like an intermittent disease, and leaves intermissions entirely void of pain,—then the efficacy of the metallic brush may be pronounced to be almost infallible. But if, from the pain being uninterrupted, or at least void of perfect intermissions, from its aggravation under pressure of the part, from the conjunction of redness, heat and swelling, there is reason to believe that the proximate cause of any case of facial *neuralgia* or *hemicrania,* consists in a state of active congestion or sub-inflammatory irritation,—then the metallic brush affords no benefit, nay, sometimes may augment the intensity of the pain. By these means, Professor Hildenbrand thinks that the metallic brush, while it maintains at least a palliative therapeutic property in *neuralgia* of spasmodic character, may, in doubtful cases, furnish an auxiliary diagnostic sign, by the aid of which sub-inflammatory congestion may be distinguished from simple nervous erethism.

In the first experiments, performed by Professor Hildenbrand, he employed brushes which were intentionally constructed of two kinds of metal, for instance, silver and copper wire, copper wire and zinc wire, or zinc wire and brass wire, the individual wires being mutually mingled and blended, on the supposition, that electricity or galvanism, evolved by the contact of heterogeneous metals, might be the beneficial and sanative agent. He afterwards ascertained, however, that bundles of wires of one and the

same metal produced an effect scarcely less speedy, but lost their anodyne influence as soon as they were covered by rust or verdigris. He further ascertained, that solid metallic bodies produce analogous effects, but in a much feebler degree than the numerous acuminated points of the bundle consisting of metallic wires. The nature of the metal, he adds, seems to cause no difference; for brushes of iron wire produce the anticipated alleviation in as great a degree as those of copper wire. If he could trust his observations, however, he thinks that he perceived a greater degree of anodyne virtue in copper, iron, and gold, than in other metals.

Admitting that the effect is constant,—to explain the theory of its production, Professor Hildenbrand does not hesitate to deduce it from the laws of electricity. The original nature of metallic bodies, which are remarkably good conductors of electricity; the rapid action of the brush if the aching spot has been previously moistened by the saline solution; the remarkable tendency of pointed bodies in attracting electricity; and the sense of an emanation, and an agreeable coolness, combined with manifest alleviation of pain admitted by the patients, he regards as no trifling arguments to infer, in the disordered and aching nerves, a certain degree of *electric plethora*, or accumulation of animal electricity, which may be discharged by the application of a suitable conductor. This hypothesis, he lastly remarks, would accurately correspond with the notions delivered in his elements on the accumulation of the imponderable Biotic principle in various parts of the nervous system, as the proximate cause of nervous disorders which attack in paroxysms, and are dissipated by what he denominates autocratic explosions.

We have given the foregoing statements without comment or remark, because they proceed from a physician of acknowledged judgment and observation. Taken by themselves, the facts, if facts they are, are extraordinary, and would lead us to believe that there was something more than fancy and mummery in the magnetic tractors of Mesmer. On a former occasion we adverted to the implicit confidence which Laennec reposed in the use of electric or electromagnetic plates on the breast and back in *angina pectoris*, and similar neuralgic affections of the chest; and were disposed not only to doubt its alleged efficacy, but to regard it as mere influence of imagination. Both methods of treatment appear to be referable to the same principle, whatever that may be; and as both appear to be regarded as really efficacious by physicians, certainly not of second rate importance, we think that instead of being made the subject of ridicule, which is too often the case, and which can neither decide the matter of fact, or investigate the principle, they should be subjected to fair trial, and their actual merits truly determined.

In order to understand the theoretical views of Professor Hildenbrand, it is necessary to observe, that his father, Valentine Ernest Von Hildenbrand, whose doctrines he adopts, imagined that health consists in a process which he names *organic-dynamic*, as depending on the soundness of organs, and the harmony of function,—resulting from the perfect equilibrium of the gangliar system and the vascular system, which he termed the two factors, in imitation of the language of mathematicians; and that every form of disease consists in the greater or less subversion of this equipoise of the gangliar and vascular systems. The Biotic principle is simply the result of this equilibrium.—*Edinburgh Medical and Surgical Journal.*

EXTERNAL USE OF CYANURET OF POTASSIUM IN NEURALGIA.

This new remedy is employed in the form of solution in water (four grains to the ounce), and applied to the pained parts in severe neuralgias, migraines, and obstinate nervous head-

aches. A man applied at La Charité for a tic douloureux, which had tortured him for four months; he was cured in eight hours; but the pain returned a week afterwards, and again it was subdued. He still feels the remains of his former sufferings, but is free from those dreadful paroxysms, whose agony defied all language to express. In another case, under the care of MM. Recamier and Trosseau, the patient had been affected for fifteen years; every remedy, even the division of the upper maxillary nerve, had been ineffectually tried. The solution was applied, and, after having been used for ten days, there was decided amendment; the frequency and violence of the paroxysms being very much abated.

Internal Use of the Cyanuret.—Some have supposed that the smallest dose would prove deleterious; this is a mistake. M. Andral, of the Pitié, has given, for several days in succession, one and two grains, without observing any other effects but those which result from the exhibition of a few drops of prussic acid. He uses it in nervous affections as in palpitations. In one case he gave four grains a day: but it is right to observe, that the patient had previously taken prussic acid in doses of twenty-four drops.—*Bulletin de Thérapeutique, Oct.* 1831.—*Med. Chir. Rev.*

EPIDEMICS INDEPENDENT OF ANY APPRECIABLE CHANGES IN THE ATMOSPHERE.

Baron Alibert very justly observes, that we cannot well account for the suddenness of the invasion, the quickness of the transition from perfect health to most formidable and fatal disease, the inefficacy of all prophylactic as well as of curative means, and many of those inexplicable symptoms which mark the history of most pestilences, by reference to any alterations in the physical or chemical condition of the atmosphere. He does not deny that these alterations may seriously affect both man and the lower animals, and may considerably modify the type and general character of many of their diseases; but then, daily observation abundantly proves that these very alterations may take place rapidly, and to a great extent, without bringing along with them that host of horrors and that desolation which marks the invasion of a pestilential scourge. Tacitus mentions that, during the terrible plague at Rome, in Nero's reign, there was "nulla cœli intemperies quæ occurrerit oculis," but that some earthquakes and dreadful storms had been experienced about that time. The weather which preceded the invasion of the plague in London, in 1665, was pleasant and healthful according to Sydenham; but while it raged, there was also great mortality of the lower animals, especially of sheep and cows; and it is worthy of remark, that in the years 1664, 1665, and 1666, three comets had been visible, and Mount Ætna was in a state of constant activity.

According to Fernel, the pestilential dysentery which desolated Europe in 1538 and 1539, was not accompanied by any appreciable changes in the atmosphere; but violent earthquakes and eruptions from Mount Vesuvius occurred at the time. He comes to the conclusion, that it is needless to search for the germ of an epidemic in the air; that it is a poison sent from Heaven upon earth—"inquinamentum a cœlo demissum." In 1580, Egypt was visited by a plague more terrible than any since the time of Pharaoh; in Cairo alone, half a million died in the course of eight months; and during the same year, Rome, Hamburg, Lubeck, and many other towns in Europe, were ravaged by a most fatal epidemic catarrh or influenza; there was also great mortality among all sorts of cattle, and, moreover, a comet was visible for two months. An interesting feature in the history of epidemics is, that they are often present in numerous places, widely remote from each other, and each having very different climates,

at one and the same time; and on the other hand, certain places or districts frequently escape, while all around is the scene of their ravages. Similar occurrences are met with in the vegetable world; one field of corn will sometimes be found destroyed by the blight, while the adjacent ones are sound and productive, even although their soil is alike, and they have been treated in exactly the same manner. The plague of 1576 depopulated Verona and Padua, and spared Vicenza, situated between them; on the following year Vicenza was visited, and the two other towns escaped.

Again; sudden and very terrible changes in the atmosphere have been known to occur without inducing any pestilential disease. The famous epoch in the sixth century, when storms and tempests so utterly confounded all distinctions of the seasons, that the end of the world was thought to be at hand; when the sun became pale, and gave only a feeble light for twelve months—'toto anno eo, lunæ instar sine radiis lucem tristem præbuit plerumque defectam patienti similis;' when eclipses added to the darkness and horror; when the plants of the earth were dried up and withered away; and when famine stalked abroad among the nations,—even then no pestilential disease existed. Many other instances might be mentioned, but it is unnecessary. We are, therefore, justified in our conclusion, that the air may serve as a vehicle for the dissemination of the germs of pestilential diseases, but that it is not the source which gives them birth.—*Révue Méd.—Op. Cit.*

BOOKS.

The Principles and Practice of Obstetric Medicine in a Series of Systematic Dissertations on Midwifery, and on the Diseases of Women and Children. Illustrated by numerous Plates. By David D. Davis, M.D. M.R.C.S.L., Professor of Midwifery in the University of London, &c. &c. Part XIX. London: John Taylor, 1833.

We regret to perceive by the announcement on the wrapper of this number that its erudite and experienced author has been prevented by illness from progressing with his work as regularly as he intended. We are happy to state that he is now recovered, and will proceed as rapidly as possible with the remainder of this laborious undertaking.

The Dublin Journal of Medical and Chemical Science, exhibiting a comprehensive View of the latest Discoveries in Medicine, Surgery, Chemistry, and the collateral Sciences. No. VIII. May. Dublin: Hodges and Smith.

This excellent periodical maintains its high reputation, and contains much important practical and scientific intelligence, which we shall lay under contribution at our earliest convenience.

Report of the Experiments on Animal Magnetism, made by a Committee of the Medical Section of the French Royal Academy of Sciences, read at the meetings of the 21st and 28th of June, 1831; translated, and now for the first time published; with an historical and explanatory introduction, and an appendix. By J. C. Colquhoun, Esq. 8vo. Cadell, Edinburgh; and Whittaker, London. 1833.

An Address to the Governors of the Birmingham General Hospital on the propriety of appointing Assistant-Surgeons to that Institution. By Richard Middlemore, Esq., M.R.C.S.L., and Lecturer on Diseases of the Eye at the Birmingham Eye Infirmary. Drake, Birmingham. 1833.

CORRESPONDENTS.

A Constant Reader.—It is impossible for us to proceed quicker with the translation of the Dictionary of Practical Medicine. The article aneurysm occupies 150 pages, 8vo., so that our correspondent can scarcely complain of its appearance in four numbers of this journal. Others request us to discontinue the work altogether, so that it appears difficult to please all parties.

Dr. Gordon Smith.—The strictures on the poisoning case are just, but such as we dare not publish while truth is a libel.

The influenza has prevented us from replying to several correspondents in due course. We are much obliged by the communications of Dr. Sanders of Edinburgh, Professor Graves, and Dr. Jacob, of Dublin.

We shall be happy to exchange with our French contemporaries.

Amount of Subscriptions already received in aid of Dr. Ryan . . £225 16 6

John Swift, Esq. Surgeon, Sackville Garden, Dublin . . . 1 0 0

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 67. SATURDAY, MAY 11, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXXV., DELIVERED DEC. 31, 1832.

Gentlemen,—In the last lecture the symptoms of *tetanus*, especially those of traumatic tetanus, were explained; the other form of the disorder, namely, the idiopathic, belonging altogether to the department of the practice of physic. Tetanus appears to consist very principally in a derangement of the muscular system, and to be excited through the medium of the nerves. It seems to be a rigid contraction, or spasm, of a part or the whole of the voluntary muscles; for sometimes it attains even this extent and degree. Its commencement is generally in those muscles which are concerned in closing the jaw; it afterwards attacks the muscles of deglutition; then the muscles of the neck, from which it advances to those of the trunk, and finally to the muscles of the extremities. I informed you, that the fingers remain undisturbed until the last, or, at least, until a very late period of the disease. It would appear, also, from a circumstance to which I shall presently call your attention, that, in tetanus, the muscular coat of the arteries is not exempt from the influence of the disorder, for they are found to be more contracted than usual. Wounds of every description may give rise to tetanus; and even the most trivial injuries will sometimes produce the disease in warm climates, where, as I have already told you, the complaint is much more common than in cold and temperate countries.

At our last meeting, I brought under your notice an instance, in which Baron Larrey had to treat a case of tetanus produced by so trivial a cause as the irritation of a small fish-bone lodged in the throat of a French soldier in Egypt. In cold countries tetanus is much less frequent; and when we see it in this country, it is generally as a consequence of wounds, either peculiar in their situation or in their nature, namely, they are usually lacerated, contused, or punctured wounds in tendinous parts;—wounds of the thumb, toes, or fingers, or deep-punctured wounds in the sole of the foot, compound fractures, or compound dislocations of ginglymoid joints, and especially of the thumb. These are the most common exciting causes of traumatic tetanus, when it does occur in this country, where it is by no means a frequent case. But, although contused and lacerated wounds of tendinous parts are those most likely to bring it on, any description of local injuries may excite the disease; thus, we sometimes see it caused by simple wounds in common parts; sometimes by wounds in a healthy healing state; sometimes by sloughing wounds, and the most complicated forms of local injury. I have known it follow amputation, castration, and the removal of a diseased breast. It has been known to originate from a burn.

Dissection has thrown no light on the nature and treatment of this formidable complaint. Sometimes the morbid appearances bear a close resemblance to those observed in the examination of the bodies of persons who have died of hydrophobia. You may meet with traces of inflammation in the pharynx and œsophagus, and in the mucous membrane of the intestinal canal. In one instance, Baron Larrey noticed a layer of coagulating lymph on the lining of the pharynx and œsophagus, which organs were contracted in an extraordinary degree. In another case, he found scales of osseous matter deposited on the arachnoid covering of the medulla spinalis; but it is hardly possible that these formations could have been concerned in the production of the disease, because they must have required more time for their completion, than the sudden origin and rapid course of the disease would

have admitted. In some examples, the coverings of the medulla spinalis are found inflamed; and, in others, the substance of the medulla spinalis itself is changed. Thus, in one case examined by Dupuytren, the coverings of the medulla spinalis exhibited marks of inflammation; and, in another examined by Brera, the texture of the medulla itself was altered. None of these morbid appearances, however, are sufficiently constant to justify the opinion of their being essentially connected either with the origin or symptoms of tetanus. When the arachnoid tunic of the medulla spinalis is inflamed, it is said, that the symptoms produced are those of opisthotonos, or that form of tetanus which consists in so forcible an extension of the spine, that it is bent considerably backwards.

With respect to the *proximate cause of tetanus*, gentlemen, this is a subject involved in considerable obscurity. Why should a wound in one individual produce tetanus, while a similar wound in the same part in another individual, may be followed by no serious consequences whatsoever? From the frequency of tetanus in warm climates, it is natural to suppose, that the state of the constitution is concerned in the production of the disease; that is to say, it acts as a predisposing cause, and of this fact, I think, there can hardly be a doubt. Yet we must not altogether exclude local circumstances from consideration, for they seem to have their share in the production of tetanus. If this were not the fact, we should not observe that certain descriptions of wounds, and wounds in particular situations, more frequently give rise to tetanus than ordinary wounds. We must, therefore, presume, that there is something in the state of the wounded parts themselves conducive to tetanus. If it were not so, we should not find, that lacerated and contused wounds, and injuries of tendinous parts, so frequently produce it. Then, another question arises, whether the partial division of nerves is the exciting cause of tetanus? Baron Larrey relates some cases in support of this doctrine; but whether the opinion be true or not, the fact is, that tetanic patients cannot always be cured by making a complete division of the nerve. Mr. Liston, of Edinburgh, relates an instance, in which the branch of the median nerve that is distributed to the thumb, was partially divided, and in which amputation was performed, in the hope of curing the tetanic symptoms, but without success. When the limb was examined, the extremity of the nerve was found inflamed and thickened.

It was noticed by Baron Larrey, that when tetanus comes on, the secretion of pus from the surface of the wound ceases, or its quality is considerably altered; and hence he was led to suspect, that the origin of the disease might be, in some degree, owing to the stoppage or disturbance of the process of suppuration. This induced him to try what would be the effect of endeavouring to renew the secretion of pus. But this stoppage of suppuration appears to me to be rather the effect of tetanus than the cause of it: indeed, I mentioned to you, when on the subject of suppuration, that all great disturbances of the constitution had immense influence on the process of suppuration, as well as on the secretions in general; and it is not at all surprising, therefore, that in traumatic tetanus we should find suppuration stopped, or the pus converted into a scanty, dark-coloured, unhealthy secretion.

Gentlemen, with regard to the *prognosis in traumatic tetanus*, I may remark, that the disease generally proves fatal. Dr. Parry thought that one criterion, respecting the probable issue of the case, might be derived from a calculation of the velocity of the circulation; and it was his belief, that when the pulse was not more than 100 or 110 before the fifth day, a favourable termination might be hoped for. Then, it is remarked by men of great experience, that if the patient live beyond the ninth day, he will have a much better chance of recovery than he had previously.

Idiopathic tetanus is well known to be less dangerous, than the symptomatic or traumatic form of the disease: many cases of the former end favourably, but the traumatic species of tetanus—that which surgeons have to deal with—I may say, is generally fatal. It is, indeed, a form of disease, over which the resources of medicine and surgery have much less controul.

Gentlemen, the *treatment of traumatic tetanus* comprises both local and constitutional measures. Local treatment seems naturally to suggest itself, because, the disease being brought on by a wound, we must suspect that some irritation is existing in the part, or some peculiar operation is going on in it, which is concerned not only in producing the disease, but in maintaining and aggravating its symptoms. The suspicion of the disease being dependent upon the partial division of a nerve, led to the practice of endeavouring to detach the wounded part from all nervous communication with the sensorium. This was attempted in two ways—first by amputation of the wounded limb. Thus, Baron Larrey proposes the following question: whether in traumatic tetanus it would not be wiser to amputate, without delay, than to make trial of other means, which experience proves to be almost always unavailing? The same surgeon even published some cases in support of the practice of amputation; but, on looking attentively over them, you will find, that all those in which amputation proved successful, were instances of *chronic* tetanus; and we now know, that the chronic variety of this disorder may frequently be cured without amputation, and that it is generally more under the controul of medical and surgical treatment than the acute form of the complaint. Indeed, Larrey himself admits, that amputation is of no use in acute tetanus, nor when the disease has

made considerable progress. I believe he only means amputation to be practised in the beginning of those cases, which are likely to be slow in their progress, and for these I should say it is unnecessary. The best military surgeons generally disapprove of amputation, as a means of stopping tetanus. Sir Astley Cooper, Mr. Abernethy, and other distinguished surgeons in private practice, also join in this opinion. I have already alluded to the case, recorded by Mr. Liston of Edinburgh, in which he amputated the arm, in the hope of arresting the tetanic symptoms, where there was a partial division, and an inflammation, of the branch of the median nerve distributed to the thumb. The amputation seemed to stop the spasms for a moment, but they soon returned with greater violence. In this instance one curious circumstance was exemplified, namely, as soon as the operation was finished, Mr. Liston wished to let the arteries bleed a little while before they were secured, but he found that they had contracted so much, that scarcely any blood could be obtained. In fact, no ligatures were necessary, for there was no hæmorrhage.

Another less severe local treatment has been proposed, one which acts, however, on the same principle as amputation; it is that of making a deep incision in the wound, so as completely to divide the partially injured nerve. This practice has occasionally answered; and I remember one instance of tetanus, produced by an injury of the supra-orbitary nerve, where a complete division of this nerve, performed by cutting down to the bone, had the effect of stopping the disease.

You may read in the Medical Gazette, No. 271, the particulars of a case, in which Dr. Murray, of the East India Company's service, succeeded in arresting an attack of tetanus by dividing the posterior tibial nerve behind the inner malleolus, the disorder having been rapidly induced by the entrance of a rusty nail into the sole of the foot. The relief was certainly very remarkable. On the same principle, moxa, cautery, and caustic have been used to destroy the seat of irritation, and cut off the nervous communication of the part with the sensorium. In Baron Larrey's history of military surgery, you will find instances, where the median nerve had been included in the ligature on the brachial artery, and also cases, in which a ligature on the femoral artery had embraced the branches of the crural nerve; here it was suspected that the tetanus, which ensued, might have originated from the unskilful inclusion of the nerves, and the proposal was made to cut down to the artery, and remove the ligature. In one case, Larrey actually tried this plan; he exposed the femoral artery, and took away the ligature; but the tetanus was only stopped for a short time by this proceeding, and then it returned with increased violence. Finding this expedient unavailing, he then cauterised the whole surface of the stump, and administered opium. The patient ultimately recovered, but it cannot be affirmed, that the cure was absolutely promoted by the removal of the ligature. No doubt the practice was rational; yet nerves are so frequently tied without tetanus being brought on by it, that it is difficult to say what influence the tying of the nerve truly had in the instance before us. One consideration, I think, is rather against the doctrine, that cutting off the nervous communication of the wounded parts with the sensorium would generally answer; namely, tetanus sometimes comes on when the wound is actually healing, or in a healthy state. At all events, gentlemen, if you determine to act on the principle of detaching the wounded parts from all nervous connexion with the sensorium, I am of opinion, that you ought to reject amputation, and to be content with other milder proceedings—the division of the nerve, or its filaments, distributed to the wounded parts.

In consequence of the stoppage of suppuration in the wound, at the commencement of the tetanic symptoms, some surgeons recommend the renewal of the discharge by means of blisters; but as the suppression of suppuration seems to be rather an effect, than a cause of the disease, it does not appear that much good is likely to be derived from this suggestion; indeed, I can trace but little evidence in favour of such treatment.

Gentlemen, another practice is that of stimulating the wound with tobacco poultices, turpentine, laudanum, and other applications. This practice was tried upon an extensive scale in our army in Spain, and in the French army in Egypt; but the reports of it are not such as to justify the hope of its proving useful. It is discouraging indeed to learn from Sir James M'Gregor, that in several hundred cases, which happened amongst our troops in Spain and Portugal, very few were benefited by any medicine or plan whatsoever, after the disease had made any progress, and attained the acute form. In the last lecture, I reminded you of an observation made by Dr. Cullen, that the blood is not buffy in tetanus; a statement, which I may now tell you does not agree with what has been noticed by more modern practitioners, many of whom have examined the blood taken from tetanic patients, and observed the inflammatory crust upon it. Indeed, after what I have said, respecting the morbid appearances met with in the bodies of individuals who have been victims of tetanus, you cannot be surprised that such should be the case. I informed you, that traces of inflammation are frequently observable in various organs, especially in the medulla spinalis, and in the course of the alimentary canal. I might have told you also, that, in one dissection, Mr. Liston of Edinburgh, found traces of inflammation in the larynx. The knowledge of these circumstances would lead us to expect, that the blood would present a buffy appearance, and such is

often the fact, although Cullen and others make a different statement. In consequence of the blood being sometimes buffy, and the pulse being full and quick in the beginning, you might suppose, that blood-letting would be be beneficial, especially in strong robust persons; but, notwithstanding such foundation for the practice, experience has produced few facts in evidence of its usefulness. It is a treatment that has been extensively tried, but without any decided good, as far as I am able to judge: and some surgeons of vast experience go so far as to declare, that death is accelerated by it. I hardly dare venture, therefore, to recommend venesection as a common practice in tetanus; however, if I were called in to a case, and the patient were strong and athletic, with a full quick pulse, I should not be afraid of having recourse to local bleeding, of applying cupping glasses near the spine, or leeches to the throat and neck, as it is in those regions that inflammation, when it does prevail, is mostly observed. I should prefer these methods to the employment of the lancet. Sir Astley Cooper gives it as his opinion, that bleeding in acute tetanus does harm, and accelerates the death of the patient; and as far as my own opportunities of observation reach, I have not been encouraged to entertain a very favourable opinion of the practice.

When I was describing the symptoms of tetanus, I specified obstinate costiveness as invariably attendant on the disease; hence, one indication is to restore the functions of the intestines, and to procure evacuations from them; which is sometimes difficult, for tetanic patients are not easily affected by purgatives. Mr. Abernethy used to prefer for this purpose calomel and jalap, mixed with treacle; but, gentlemen, we have now a more convenient and certain medicine for tetanic patients, namely, *croton oil*. It is more sure in its effects than any other purgative that can be administered; you may give one or two drops of it mixed with mucilage, or gruel. By this dose, a copious evacuation will generally be produced; a considerable advantage, because you are commonly exhibiting at the same time another medicine, which has a contrary effect, namely, opium. Now if you can keep the patient under the influence of opium, and also succeed in maintaining the regular and proper action of his bowels, you are doing almost as much for him, I believe, as it is in the power of medicine to accomplish. The painful nature of the muscular contractions led to the trial of narcotic medicines almost as a thing of course; and, accordingly, opium has been fairly and repeatedly tried. Other narcotics have also not been forgotten: in particular, hyoscyamus has been frequently given, and found to relieve the patient's sufferings, though inadequate to effect a cure. I have told you, that patients in tetanus are not so easily acted upon by medicines as in the generality of other diseases; in fact, they seem to require immense doses of medicines, and especially of opium. Perhaps, you will be surprised to hear, that it is not uncommon to give from ℥ss. to ℥j. of opium every six hours, and from ℥ss. to ℥j. of the extract of hyoscyamus. In tetanus, you may certainly give medicines in large doses; but I would not recommend the immense doses here specified, as a prudent plan to begin with. The safest maxim is to commence with small doses, and gradually increase them. In some cases, the stomach does not appear to digest the medicines put into it; thus, in one instance, Mr. Abernethy opened a person who died of tetanus, and thirty drachms of opium were found in the stomach.

Opium is sometimes administered in clysters; and it is not unusual, in trismus, to have recourse to frictions with opiate liniments about the neck and jaws. For this purpose laudanum alone, or equal parts of laudanum and soap liniment, are employed. Perhaps purgatives, with opium and hyoscyamus, are the most valuable medicines in tetanus. Their use may be combined with judicious local measures; for if you have reason to suppose, that a nerve is included in a ligature, or partially divided, there can be no objection to your proceeding to remove the source of irritation, by plans to which I have already invited your notice. The warm bath has been occasionally tried, but no confidence is now placed in it; indeed, in the West Indies some individuals died almost as soon as they were removed from the bath; and, as for the cold bath, it has proved, in traumatic tetanus, decidedly injurious. Amongst other things, mercurial frictions have been extensively tried: I have seen them used in five or six cases, but invariably with ill success. What confidence can be placed in them, when I tell you, on the authority of Sir James Macgregor, that a soldier, in Spain, who happened to be taking mercurial ointment for the itch, was positively attacked with tetanus while under the influence of mercury?

Dr. Elliotson sees some resemblance between tetanus and paralysis agitans and chorea. Now, you know, in these diseases, the subcarbonate of iron has been given with great success. Dr. Elliotson was therefore led to try the same medicine in three cases of traumatic tetanus, two of which were cured by it, which was certainly doing a great deal, and was fully sufficient to justify further trials of the plan. Dr. Elliotson gave from ℥ij. to ℥ss. every two hours, obviating costiveness by castor oil and turpentine. Here, gentlemen, I will close my observations on tetanus, knowing that you will receive from the Professor of Physic further valuable information on the subject, of which it is difficult to offer a very satisfactory view; for, when the pathology of a disease is obscure, all reasoning about its nature and treatment is under the greatest disadvantage.

Continuing the subject of *mechanical injuries*, I next come to those of *bones*. On account of the manner in which the bones are protected by the integuments and muscles, and by reason of their hardness, they are not liable to be cut and wounded like the soft parts, but from their brittleness they are liable to be broken.

A *simple* fracture is so called, when there is no external wound communicating with, or extending down to the broken part of the bone. A person may have a broken bone and a wound at the same time on the limb, still the fracture may be a *simple* one; because it is essential that the wound should communicate with the injury of the bone, to constitute what is denominated a *compound fracture*. If I were to fall down and break my thigh, and at the same time receive a cut, or laceration of the soft parts of the thigh, quite unconnected with the fracture, the case would not be of the sort, which, in surgical language, is distinguished by the term *compound*. I may also observe, that the kind of wound, which is essentially requisite to render a fracture compound, is generally produced by the protrusion of the broken bone itself. You are, therefore, to understand, that it is not because a fracture is accompanied by a wound that it must necessarily be a compound case, and that, unless such wound communicate with the fracture, no very material difference is usually made by it in relation to the fracture itself. The kind of wound, essential to a compound fracture, is generally produced by the protrusion of one of the ends of the broken bone; I say *generally*, because, in compound fractures, the result of gun-shot violence, the wound is always occasioned by the ball, or bullet, that enters the limb. When the bone is broken in several or many pieces, the fracture is said to be *comminuted*, while *complicated* is the epithet applied to fractures combined with a variety of circumstances, adding to the difficulty of the treatment, or requiring especial attention. Thus, the combination of a fracture with the wound of an artery, a dislocation, (for there may be dislocation and fracture of the same bone together,) injury of viscera, or of any organs, whose functions are highly important, will make the case a *complicated* fracture. A person may fracture the ramus of the os pubis, as you see exemplified in this preparation, where the ramus of the ischium and os pubis are both broken, and the fragments of bone may be so displaced, as to lacerate the urethra, and give rise to an extravasation of urine. This was what really happened in the patient from whom these bones were taken. The case is indeed a good illustration of a *complicated fracture*. I may state also, that whenever there is extensive laceration of the soft parts, or wherever the fracture runs far along the shaft of the bone into one of the large joints, as for example into the knee, the accident would rank as a *complicated* fracture. But, gentlemen, besides these distinctions, there are others derived from the direction of the fracture, as when it is *transverse*, *oblique*, or *longitudinal*, and, I assure you, these particularities are worth remembering, because they have considerable influence over the difficulty, or the facility of effecting a cure. Thus, if the thigh-bone be broken, and the fracture be oblique, the lower portion of the shaft of the bone will be much more easily displaced, and more difficult to keep reduced, than if the fracture were transverse. The reason of this fact is sufficiently obvious, in consequence of the obliquity of the surfaces of the fracture, the two ends of it are enabled to glide over each other, and the muscles arising from the pelvis, and inserted into the femur, patella, and bones of the leg, will draw the lower fragment towards their origin, or more fixed point. But when the fracture is transverse, the resistance of the upper end of it will tend to maintain the lower in its proper situation, at least, as far as the preceding kind of displacement is concerned. Next to the circumstance of a fracture being *simple*, *compound*, or *complicated*, that of its *direction* is most important to be remembered. The long cylindrical bones, which serve as pillars or arches of support for the body, or as levers for the action of the muscles, are, by the nature of their office, particularly exposed to the risk of fractures. Their shape, use, and situation are all so many circumstances rendering them extremely subject to be broken. On the other hand, the broad flat bones, such as the scapula, sternum, and os ilium, though sometimes fractured, are much less frequently so injured, than the long cylindrical bones. The bones of the skull, however, which are broad and flat, are exceptions to this observation; but this is owing partly to their superficial situation, or their not being covered by any great quantity of soft parts, and partly to the force with which the head is generally struck by falls and blows. In short, the head is a part remarkably exposed to external violence; and I may say, as a general rule, that the more superficial a bone is, and the more exposed it is to the action of external violence, the more liable it is to be broken. It has been sometimes asserted, that the action of the muscles is invariably concerned in the production of fractures; but this doctrine certainly goes beyond the bounds of accuracy. We know that the patella is often broken by the violent action of the muscles in front of the thigh, that the olecranon and part of the os calcis are sometimes torn off from a similar cause; and also that the humerus is occasionally broken by the force of the muscles attached to it. In truth, I once attended a man, who broke his arm by aiming a blow at another person, whom he did not succeed in striking; neither did he fall; yet the humerus was broken. It is true, that when a person falls down, he endeavours to save himself, and for this purpose puts his muscles into violent action, which may therefore be supposed to

have some share in producing certain fractures; yet that muscular action is *always* concerned in producing fractures must be an incorrect hypothesis. When the cranium is fractured, can we possibly suspect the action of the muscles, or, at any rate, of any muscles belonging to the patient himself?

We may say, then, gentlemen, that fractures are produced, first, by external violence, operating directly on the part broken; secondly, by external violence applied to parts more or less remote from the seat of the fracture; and thirdly, by the action of muscles, as in ordinary fractures of the patella. You will readily conceive how a bone may be broken by violence applied to a part remote from the fracture; thus, when a person alights on the ground from a great height, and fractures his thigh or leg, the resistance of the ground and the weight of the trunk produce the fracture; there is no violence applied directly to the broken part, but the extremities of the bone receive the force, and the middle portion of the bone bends and breaks. This case is very different from one, in which a man's leg is broken by the kick of a horse; here the violence is applied directly to the part which is fractured. I will go on with this subject, gentlemen, on Wednesday evening.

CLINICAL LECTURES

DELIVERED BY

DR. WILLIAM STOKES,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE I.

Importance of Clinical Medicine—Symptoms and Diagnosis of Empyema.

Gentlemen,—In commencing that portion of clinical instruction which has been allotted to me, I beg leave to state, that it is not my intention to give an introductory lecture. You have had enough of introductory lectures during the present session. I do not intend to add to their number, and shall therefore, after having briefly premised a few general observations, proceed to the consideration of such hospital cases as demand our particular notice. Before I do this I wish to remark, that I have observed, with regret, the small number of gentlemen, particularly those who are beginning their professional studies, that have availed themselves of the great and important advantage of becoming clinical pupils. Most of those who have undertaken the care of attending cases are of some years' standing, and few, if any, of the junior students have come forward to profit by the fairest opportunity and the most certain means of acquiring valuable practical information. It is my anxious wish that they should avail themselves of this opportunity, for it is an advantage, and an extraordinary one. We have long and frequently observed, that those gentlemen who have been clinical pupils rapidly attain a decided superiority over others, not merely in the knowledge of medicine, but also in the happy facility of bringing their acquirements to bear on matters of practical utility. We have often seen junior students, who wisely availed themselves of this opportunity, taking the start of their seniors, and leaving them far behind. But I need not dwell longer on this point. From my own knowledge I can state, that in the professional career of after life the most sterling benefit accrues from becoming clinical pupils. In the first place, it is attended by that pre-eminence which sound, practical information always bestows. In the next place, there is a direct advantage derived from the certificates given to such as distinguished themselves at the close of the session. By means of these certificates, I can inform you, gentlemen, many persons have obtained valuable appointments. One gentleman, merely in consequence of its being certified by us, that he was a man of practical acquirements, and had had many patients under his care, although a young man, was appointed to an institution in England, with a liberal salary and a comfortable house. He had many competitors, who were much older than himself, but none of them had had patients under care for some time: this circumstance decided the election in his favour. Another pupil of this Institution, who went to settle on the Continent, has been made physician to a foreign court. Another, who may be considered as a son of the Meath Hospital, for it was here that he acquired the rudiments of medical knowledge, has obtained the first degree in the University of Cambridge.

I could go on with various other instances of the professional success and celebrity of our clinical pupils, but those I have detailed are sufficient. The truth is, the certificate constitutes a testimonial of unequivocal value to the possessor. At a late election for a surgeon to a county infirmary, it was one means, and an important one, too, of getting the vacant situation for the gentleman who held it; for by it he obtained the support of a most influential subscriber who was so convinced of its weight as a test of real merit, that he exerted himself warmly in his favour and secured his election.

I have frequently been placed in a very painful situation at being obliged to refuse them to pupils who had not taken clinical duty; but, looking on them as the testimonials of genuine industry and application, I shall continue to pursue the same course, however disagreeable it may be to my feelings. It has been my custom, during former sessions, to give lectures on the stethoscope and diseases of the chest; I shall endeavour to make the present course subservient, in some degree, to this purpose; but as clinical lectures are not exactly adapted to convey information on these subjects, and as it would not, perhaps, be right

to occupy the entire time of a lecture with them, notwithstanding their acknowledged importance, I intend to form a stethoscopic class; and such gentlemen as are willing to enrol their names will please to leave them with Mr. Hudson; and on every Thursday morning I shall give a lecture, to be devoted to the sole consideration of the use of the stethoscope and diseases of the chest. In this way we shall avoid the inconvenience of taking up with those matters the time allotted to the clinical lectures. Those who wish to enter the stethoscopic class will give in their names after lecture; and, at the end of the season, I purpose to give certificates for their attendance, to those whose industry and attention give them a just claim.

I begin, gentlemen, by directing your attention to one of the most important cases you can meet with in practice, whether as physicians or surgeons; I allude to the case of empyema which we were examining this morning in the Chronic Ward. Seven months ago, this man fell from a ladder and injured his back. He suffered very considerable pain from the accident, and was admitted into an hospital, where he remained for some time under treatment, and was discharged, according to his own account, nearly well. He returned to his usual avocation, and remained at work for the space of four months without inconvenience, when he had an attack of pain in the side, with fever, for which he entered Cork-street Hospital, where he was blooded, which gave him some relief. The disease, however, was but very little modified, and he laboured under oppression of breathing, pains in his side, and irregular hectic. A month after his discharge from Cork-street Hospital he discovered the important symptom, that his heart pulsated at the right side of the sternum. You perceive the symptoms exhibited by this affection were pain in the left side of the chest, dyspnœa, harsh dry cough, and pulsation of the heart at the right side of the sternum. Now, how do these symptoms look? do they alone prove the existence of empyema? They prove, at least, the existence of a regularly progressive disease, which pushed the heart to the right side of the chest, and the probability was, that this was empyema. Recollect all the symptoms—pains, oppression of breathing, pulsation of the heart at the right side, and irregular hectic. On admission, he presented the different stethoscopic signs of empyema—dulness of sound on percussion over the affected side, absence of the respiratory murmur in the corresponding lung, absence of bronchial respiration, pulsation of the heart at the right side, puerile respiration in the sound lung, and great difficulty of breathing. In fact, at the time he came into hospital the dyspnœa was so severe, that he seemed almost moribund, and the case appeared so urgent that it was thought necessary to remove the fluid by an operation, as the only means of saving his life. On the following day, however, his breathing was much relieved; he made no complaint, his pulse had become quiet, and his condition singularly improved. We determined, therefore, to wait and try the effects of medicine. Here is an important fact, showing that distress, fatigue, and cold, to all of which this man had been exposed previously to admission, may so modify the condition of a case of empyema, and cause such an array of symptoms, as seem to demand an operation with more than common urgency. And yet we find that twenty-four hours after this man's admission, there occurred so much improvement in his symptoms, that the Surgeon-General at once determined to postpone the operation. Since then, he has been treated by leeching and counter irritation; he has taken some tartar emetic, and, latterly, calomel and opium. We have, in fact, been treating it as a case of pleuritis; and it is in this way I have been in the habit of treating many cases of empyema with success. I believe I was the first who pointed out strongly the fact that a great many cases of empyema admit of a cure without operation, even after extensive lesion has occurred, and the heart has been displaced from its natural situation. My colleague and I have seen several cases in the hospital, and I have also witnessed cases in private practice, of complete recovery after very severe attacks of empyema by medical treatment alone. In the Dublin Hospital Reports we have noticed this important fact, and indicated the proper mode of cure, which consists, not in endeavouring to evacuate the fluid by diuretics, but by treating the disease still as one of an inflammatory character. This is a mode of treatment which requires a great deal of patience on the part of the patient, and a steady and determined perseverance on the part of the physician. With respect to its results in the case before us, I can only say, that as far as we have gone it has not yet disappointed our expectations, though I cannot assert that we have gained much ground. Mr. Hudson's report for this day is, that he thinks the affected side is somewhat diminished in bulk, and that the heart is approaching its original situation, so that as far as this goes the event is favourable. It shows that if the disease be not improving it is stationary; and when we have any prospect of the decline of the existing symptoms, it is of great importance. I beg your particular attention to this case, as I shall use it in illustrating the subject of empyema, on which I intend to offer a few observations, some of which, I believe, are original.

It would be well for medicine, and highly conducive to our knowledge of the real nature of disease, if we could get rid of the term empyema, and all those denominations which do not give any precise or pathological idea of the morbid affections to which they are applied. It is better to call it *pleuritic effusion*. The serous membrane forming the pleural bag is in a state of inflammation, giving rise to

effusion of a considerable quantity of seropurulent matter into its cavity. This may be the result of acute or chronic pleuritis; in some cases of violent inflammation of this membrane, we perceive the side evidently increased in size in the space of a few days, in others it is slower in its progress, and exhibits the characteristics of chronic disease. With respect to its diagnosis (a very important point in practice) as far as the symptoms independent of the physical signs are concerned, we cannot say that any of its symptoms are strictly pathognomonic, and may not proceed from other causes. What are the common symptoms of empyema?—Pain in the side, difficulty of breathing, irregular hectic, all of which might be the consequences of chronic pneumonia, of phthisis, and various other complaints. As far as the symptoms are concerned, they do not throw any light on the disease. It is from the physical signs alone we derive any certainty of information, and it is on these our diagnosis chiefly depends. Now what are those physical signs?—They are, first, the modifications which the disease produces in the shape and appearance of the thorax; in the next place, the modification produced in the viscera of the thorax, or external to it, in the viscera of the abdomen, as when we have the heart displaced from empyema of the left side, and the liver from empyema of the right; and, lastly, the information we derive from auscultation and percussion. Thus it is principally from the physical signs, from the change in the shape of the thorax, from the displacement of the viscera, and from the signs afforded by auscultation and percussion, that we arrive at a knowledge of the true nature of the disease. I do not know any other case in which what are merely symptoms are so equivocal. If you look merely to the symptoms, and do not study the physical signs, you will never be able to make a correct diagnosis. I will just enumerate those physical signs, and beg leave to impress them on your attention. Some of them may be obscure, and it is not an uncommon thing for some of them to be absent in a case of decided empyema, but the following can generally be distinguished:—increase of bulk in the affected side; an even and smooth appearance of the side from the dilatation of the intercostal spaces; (this is a very important sign, and you have it extremely well marked in the patient above stairs;) complete dulness of sound on percussion; absence of the respiratory murmur over the lung of the affected side, because it has been rendered useless by compression; absence of bronchial respiration; and, when the disease is on the right side, displacement of the liver; when on the left, displacement of the heart, which is frequently found pulsating at the right side of the sternum. These are the great and leading characteristics of empyema. One symptom more remains to be noticed, which is always laid down in surgical works, and this is, sense of fluctuation heard or felt in the thorax; for, when we speak of fluctuation, we always speak of it as a thing which can be either heard or felt. Now, I have to observe on this subject, that it must be an extremely difficult thing indeed to feel a fluctuation in an unyielding bony cavity like the thorax. When an effusion exists in the abdominal cavity, the parietes of which are soft and compressible, it is not difficult to detect its presence, and satisfy ourselves that fluctuation can easily be felt, but it must, I think, be next to impossible to ascertain this in the thorax. If you go up stairs and tap and examine this man with the greatest care, you will not be able to feel the slightest fluctuation. You read in surgical books that when you employ succession, that is, when you give the patient's chest a sudden jerk, you will be able to hear the splashing of the fluid within the pleural sac. This is quite true in some cases, but altogether untrue in others. As applied to cases of simple empyema, this assertion is totally unfounded; you cannot hear any fluctuation in simple empyema. The fact of hearing the sound of fluctuation in empyema is a direct evidence of the existence of something more than liquid within the cavity of the pleura, it shows that there is air within it as well as fluid. You can convince yourself of this by a single moment's reflection. Shake a full bottle of water, and you cannot hear any sound from the contained fluid; repeat the experiment after pouring out some of it, and you hear the sound immediately. It is the same way with respect to the pleural cavity, if it be a case of simple empyema, and there be nothing within the pleura but fluid you cannot hear any fluctuation, but when, in addition to empyema, we have pneumothorax, then the fluctuation is perfectly audible. It is plain, therefore, that this sign is to be only conditionally received, for in the case of simple empyema it never occurs, and therefore cannot form one of the fixed and leading characters of the disease, or be fairly classed with those which we have before enumerated.

I shall now draw your attention for a few moments to some researches I have lately made in this Hospital on the diagnosis of empyema. You will find, that notwithstanding all that has been written on this subject both in this country and on the Continent, cases will occur in which there will be great difficulty in determining the presence of fluid; and when we consider the importance of a correct diagnosis to the physician as well as the patient, and reflect that every difficulty encountered in forming it adds to our indecision, and prevents us from bestowing on the subject that cool and cautious consideration so essentially requisite to secure reputation or achieve success, you will be impressed with a deep conviction of the necessity of being able, under every circumstance, to make a good and well-grounded diagnosis. In the first place, I must remark, that when we take a

comparative view of both sides of the thorax, considered with reference to their being the seats of empyema, we will find that it is much easier to ascertain the presence of pleuritic effusion in the left than in the right side; you will understand this for the following reasons. When empyema occurs in the left side, and happens to be extensive, we have one symptom which is almost unequivocal, and this is, displacement of the heart. If you examine a patient under these circumstances you cannot feel any pulsation in the left side, but if you carry your hand to the right side of the sternum, you can there distinctly feel the heart beating. I look upon this as a most unequivocal symptom, for by it I was able to make a correct diagnosis in a case where some of the other signs were absent, and many symptoms contra-indicated the presence of empyema, yet I was able to give an opinion confirmed by the result of the disease, and this is one of the reasons why we find it easier to distinguish empyema of the left side. When the disease occurs in the right side, it pushes the heart more to the left side than natural, but this is less striking and less calculated to attract much attention. Another thing which tends to render the disease in the left side more obvious, is that any dilatation of the left side is quickly remarked. From the want of perfect symmetry between the two sides, a circumstance of every day observation, even in well made chests, the left side is generally somewhat smaller than the right. The right is naturally larger, and hence if there be any increase of size in the left side, compared with the right, it attracts immediate attention. A third reason is, that in the diagnosis of empyema of the right side we have all those difficulties which arise from the complication of liver disease, for we frequently meet with cases where enlargement of the liver produces dilatation of the side, dulness of sound on percussion over the corresponding lung, absence of respiration, and the other physical signs of empyema. When the disease happens to be in the left side, we escape all these sources of error. The small size of the spleen can have but very little effect in modifying the shape of the thorax; and though M. Andral and others have given cases of diseased spleen, which simulated empyema, yet these are very rare. We may therefore state that empyema in the left is more easily detected than when in the right side; first, from the displacement of the heart towards the right side, secondly, from the striking appearance of dilatation in the left side, and, thirdly, because the chance of confounding it with liver disease is avoided.

It appears, then, that the diagnosis of empyema of the left side, even though of inconsiderable extent, is not a matter of much difficulty, but this does not apply to empyema of the right side, the diagnosis of which occasions perhaps more perplexity than any other point a physician is called on to determine. In proof of this, I shall just state one fact. A lady from the country came up to Dublin, labouring under an affection of the right side, for which she wished to have the best advice, and two gentlemen, eminent practitioners and accomplished stethoscopists, were called in to attend her. The question was, whether it was enlarged liver or empyema of the right side. In six weeks they had not made up their minds as to the precise nature of the disease. This fact does not implicate their characters either as physicians or surgeons; it only shows the difficulty of forming a correct and certain diagnosis. The difficulty of distinguishing empyema of the right side from disease of the liver has not been sufficiently dwelt on by writers; and believe me, gentlemen, even at the present time it is no uncommon thing to mistake one for the other. I know of many cases where the patients were supposed to labour under hepatic disease, and on making an examination after death, the liver was found to be only displaced by an empyema of the right side. You can easily conceive why this error should be so often committed, when you consider the remarkable similarity of symptoms exhibited by these two diseases. When you examine a patient under the circumstances already detailed, you find him complaining of pain in the side; this may proceed from a variety of causes; he may be slightly jaundiced; this may be caused by liver disease, or by pleurisy affecting the lower part of the right side, giving an example of the sympathy of contiguity remarked by Hunter; he may have cough and a tumour in the right hypochondrium, these symptoms also may arise from hepatic enlargement. If we proceed to an examination of the physical signs we shall also meet with considerable difficulty. In both cases there is a tumour in the right hypochondrium, in hepatic disease produced by enlargement, in empyema by displacement. If we percuss the affected side we find a considerable dulness of sound, and I know a case where enlargement of the liver produced dulness of sound on percussion as high as the third rib. In both, too, we have absence of respiratory murmur, absence of bronchial respiration, and no resonance of the voice. These circumstances, I think, prove the strong resemblance of the physical signs, and will explain the great difficulty of making a correct diagnosis. I hope the following observations will assist in throwing some light on this obscure subject.

I will suppose, that you are called to see a patient, who exhibits the following train of symptoms: pain in the right side; a tumour in the right hypochondrium; dulness of sound on percussion; absence of respiratory murmur, of bronchial respiration, and of resonance of the voice at the lower part of the chest. The question is, whether it is empyema or diseased liver. I beg of you to attend carefully to these points; I think, if you consider attentively, the circumstances I shall lay down, you will be always able to arrive at a just and well-

grounded conclusion. In the first place, with respect to the dilatation of the side, if the increase of bulk, in the affected side, be caused by liver disease, *the ribs and intercostal spaces preserve their relative positions.* Here is an important fact first known in this hospital, and noticed by Dr. Graves and myself. You can easily understand this difference between the smoothing of the side and the obliteration of the intercostal spaces in a case of empyema, and the natural sulcated appearance in hepatic disease, when you reflect on the mode in which pressure is made in each, and that in one case the dilatation is produced by a fluid, in the other by a solid. In the latter case, a solid mass acts on the ribs and protrudes them without obliterating the intercostal spaces; in the former, the protrusion first affects the soft parts of the chest. There happens to be at present in the hospital a patient with an enlarged liver; examine him the next time you pass through the wards, and you will find the intercostal spaces quite distinct and well marked. I look on this sign as one of the most valuable marks in forming a diagnosis; by means of it I was able to make the diagnosis of a very difficult case. In the next place, with respect to the tumour, if it be produced by an enlarged liver, we find it presenting a continuous surface, and a feeling of resistance from its most prominent portion until it ascends under the ribs, where we can no longer follow it, and the latter are tilted out by the tumour from beneath. There is another remarkable circumstance which we have observed in a case of empyema in this hospital. There was in this case the usual appearance of a tumour in the hypochondrium, *but between the upper convex portion of this tumour and the margins of the false ribs there was a sulcus obvious to sight and touch, presenting much less resistance, and evidently formed by the contact of two convex bodies, one the upper portion of the liver, the other the most prominent part of the depressed diaphragm.* You will understand this better by a diagram. Let this curved line represent the bag of the pleura pressed down by the fluid of an empyema, and this the upper surface of the liver. These two convex bodies, pressing against each other, leave at the place where they come into contact a deep sulcus, which is never observed when the disease consists of enlargement of the liver. To satisfy myself of the existence of this sulcus, in all cases where there is a quantity of fluid in the pleural sac, I made some experiments on the dead body, by injecting water into the right cavity of the chest, so as to imitate empyema, and I found that it invariably occurred. It appears to me, therefore, that this sign is of importance, and though I do not depend upon it exclusively, still as far as it goes it is worthy of attention. The third point I shall lay down, as tending to facilitate our diagnosis, is, that if it be a case of enlargement of the liver, you will find that, on making percussion over the lower and posterior part of the chest on the affected side, there is a considerable degree of dulness, *but if you examine the very same spot, after directing the patient to take a full inspiration, the dulness disappears, and the sound is quite clear.* When a full inspiration has been taken, the diaphragm descends, pushing before it the hepatic tumour and removing the pressure from the lower part of the lung, which being thus set free, is enabled to exercise its functions, permits the air to pass through its cells, and thus produces a clear sound in parts before dull. This is not the case in empyema, the dulness is permanent, or, if there be any modification occasioned by taking a deep inspiration, it is that the pre-existing dulness assumes a greater degree of intensity.

Here, then, we have three important points to guide us in forming our diagnosis; first, the condition of the intercostal spaces; secondly, the appearance of the tumour in the hypochondrium, and the presence or absence of the sulcus before alluded to; thirdly, a portion of the lower part of the chest, previously dull, becoming clear on taking a deep inspiration. One point more connected with the displacement of the heart. The heart may be displaced both by enlargement of the liver and empyema of the right side; but the displacement is very different. When pushed from its natural situation by an empyema of the right side, how is it displaced? It is pushed over towards the left side, but still it retains its natural elevation. But when displaced by an hepatic enlargement, it is not only pushed more towards the left side, but is also pushed upwards. The diagnosis then is, that when displaced by an enlarged liver, the heart is elevated above its natural level in the thorax. We have now four important diagnostics of enlargement of the liver from empyema, and yet, notwithstanding these, cases, I have no doubt, may occur, in which these diagnostic signs will fail in some degree. These are cases where the patient happens to be very fat or anasarcous, in which conditions all these signs, as well as the form of the tumour, must be very faintly marked, and produce considerable doubt and perplexity. Such cases are, however, exceedingly rare; and it is a fortunate circumstance that patients labouring under these diseases are generally emaciated. By reviewing carefully the points already submitted to your consideration, you will be able, in almost every case, to arrive at a sound and correct diagnosis. There are several other points connected with this subject, which I am desirous of bringing before you, but the lateness of the hour compels me to defer them until Saturday, when I shall conclude whatever observations I intended to make on empyema.

On Thursday next I shall commence the lectures I have promised on auscultation and diseases of the chest.

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

At St. Thomas's Hospital, Session 1833.

Hydrothorax.—Stethoscopic Signs.—Treatment.—Rheumatic Inflammation of the Knee-joint.—Efficacy of the Antiphlogistic treatment.—Dyspnœa.—Anasarca.—Disease of the Heart.—Softening of the Fibres of the Heart.—Different Species of, as recognised by Andral.—Psoriasis, &c.

Gentlemen,—During the last week there have been only four of my patients discharged —three males and one female. Among the male patients there was a case of hydrothorax with bronchitis and anasarca, a case of chronic rheumatic inflammation of the right knee-joint, and a case of dyspnœa with anasarca and disease of the heart. The female had psoriasis, affecting only the under-lip, right cheek, nose, and right knee.

The subject of hydrothorax was a brewer's drayman, æt. 52, admitted, Feb. 8, with a purplish red face, who had been ill six months with cough and difficulty of breathing. During this time he was becoming much thinner, and within the last four or five weeks the cough and dyspnœa had become much worse; there was some expectoration, but not much, of thick soapy mucus; the cough was worse at night, and he slept badly; had no pain in any part of the chest, but complained of tightness at the lower part of the sternum; lies best on his back; of late the legs had become anasarcous, and the whole body was slightly so; the left hypochondrium was tumid, but not painful on pressure; appetite bad; tongue white; pulse 88, full, strong, and firm; urine high-coloured, and slightly albuminous, but not deficient in quantity; bowels regular. On examining the abdomen there was no reason to suspect disease of the liver, which, from the nature of his occupation, was not unlikely to be the case.

Upon applying the stethoscope to the chest, respiration was heard distinctly over the whole of the superior portion, in parts sonorous, but more especially at the right scapula. At the lower portion of each side the resonance was quite dull on percussion, and no respiratory murmur could be heard. Slight œgophony was heard on the right side, just below the right scapula; it was not exactly Punch's voice, but as though he spoke through his nose; there was no pain on pressure between the intercostal spaces, but he said that he had, during his illness, some occasional pain in each side of the chest; there was nothing unnatural to be discovered about the heart; the sonorous state of the respiration showed that there was bronchitis; and the œgophony, with the dulness on percussion at the lower part of either side of the chest, showed there was effusion into the pleura.

I ought to mention, too, that this latter condition was more clearly proved by change of position, for the respiration was not heard at all at the lower part when the body was erect; still it could be heard, though distantly, at the anterior inferior part, when lying flat on his back, and more particularly at the left side. With respect to the cause of effusion, we find it often when there is bronchitis or inflammation of the substance of the lungs, or in disease of the heart; but in this case there was no disease of the heart; there was no inflammation of the substance of the lung; there was bronchitis, it is true, but not sufficient, in my mind, to account for the hydrothorax, and therefore I believe it to have been the result of chronic inflammation of the pleura, a condition which this membrane would be more likely to take on, in consequence of the bronchitis with which he had suffered for six months, and which, to a certain extent, must have tended to embarrass the pulmonary circulation.

From the fulness and strength of the pulse, and from the urine being albuminous, I was convinced that it was inflammatory dropsy, and determined to treat it as such.

Accordingly he was bled to a pound from the arm on Feb. 9, and directed to take two grains of calomel ter die.

The blood was very much cupped and buffed; the dyspnœa was a little diminished by the bleeding, and the cough less frequent; the pulse rose to 96, was softer and more compressible; on the evening of the 12th the mouth became sore; the mercury was omitted; and as I found on the next day, the 13th, that the pulse was getting firmer, he was again bled to a pound, and ordered half a grain of tartar emetic every four hours; the blood was still much cupped and buffed, and the dyspnœa was further relieved. Now, before I ordered him to be bled the second time, I listened to the chest, the respiration was still sonorous, but could be heard lower down than before, and the œgophony was much less distinct. On the 15th the mouth had become much sorer, though he had taken no mercury since the 12th; he was ordered a gargle of the chloride of soda; and on listening to his chest I found the respiration becoming much more distinct at the lower part on either side (it was sonorous there); there was no œgophony, and he had less cough; the anasarca of the legs and body had ceased; it was clear that the effusion into the pleura was nearly absorbed; and as the lungs at their lower portions were relieved from the pressure of the fluid, the bronchitis became more manifest there. On the 16th, finding that he had rather more cough, and that the pulse was rather firmer than before, I again had him bled to ℥ x., and, omitting the tartar emetic, gave him ten minims of tincture of digitalis, with pot. acetat. ℈j. 6tis. h. as a means of increasing the secretion of urine, and in the hope of rendering further bleeding unne-

cessary; this blood was only slightly cupped and buffed. Now, under the diuretics, the secretion of urine became more copious, there was no longer any albumen in it; the dyspnœa left him, and the cough became less frequent, and expectoration nearly ceased. It was unnecessary to bleed again from the arm, though, on one occasion, he was cupped from behind the mastoid processes to ℥ x. in consequence of pain of head. He continued the digitalis to the 23rd (one week), and tincture of squills was then substituted for it. He continued to take the squill with the acetate of potass to the time of his discharge, on the 13th of March, and went out free from cough and dyspnœa; the respiration was natural, and heard over every part of the chest; and there was no dropsical effusion.

This case, gentlemen, admirably illustrates the efficacy of antiphlogistic treatment in dropsy, when arising even from chronic inflammation; the third bleeding was quite sufficient to check further inflammation, (you will observe, that the blood then drawn was only slightly buffed and cupped, while that at the two former was greatly so,) the mercury, too, was a powerful auxiliary means of diminishing inflammation, thus rendering less bleeding necessary, and at the same time, by its stimulating the absorbents, quickly removed the effusion.

This case proves, I think, too, that albuminous urine is not necessarily the consequence of organic disease of the kidney.

The case of rheumatic inflammation of the knee-joint and ankle was in the same ward, and occurred in John Brown, a groom, ætat. 40, admitted January 31. He stated that he had been ill two months, with pain and swelling of the left ankle and right knee, which came on after exposure to wet and cold, he also complained of some pain across the loins; there was considerable swelling of the right knee, with a feeling of fluctuation, but it was not very painful, neither was there redness or increased heat there; he felt in most pain when cold, warmth appeared to afford relief; slept badly; tongue rather white; appetite bad; bowels rather sluggish; pulse 110, small, and compressible; urine high-coloured. Now, as the pain was easier when warm this was a case for stimulants, and therefore after opening the bowels by a dose of calomel and jalap I ordered a blister to the knee, and ℥j of the ammoniated tincture of guaiacum every six hours. His pains were much relieved by the guaiacum, that of the ankle ceased, and the swelling of it subsided; the blister rose well on the knee, the cuticle separated, and there was for several days a copious purulent discharge, yet the swelling did not diminish, and he still complained of some pain in it; in ten days the blister was repeated, it again produced a considerable purulent discharge, and now the pain was very much diminished, but the swelling was not at all abated; the blister continued open for eleven days; he had no longer any pain in the knee, and the ankle had been some time quite well, but he complained of pain in the abdomen and loins, for which I had him cupped from the loins to ℥xij, with effectual relief, but as the swelling and stiffness of the knee still continued, I ordered ℥j of the ung. iodinæ to be well rubbed in thrice a day, and shortly afterwards gave him internally ℥j of the liq. potassæ hydriodatis thrice a day, (gr. 7 of pot. hydriodat.) Now, he began the iodine on the 20th of February, and by the 13th of March, just three weeks, the effused fluid was entirely absorbed, and as regarded his limbs he was quite well.

It is right to mention to you, that after he had been in the hospital a fortnight I was told that he had gonorrhœa, and that he had been the subject of it for three months. Upon examining the parts, however, there was nothing more than some irritable excoriations about the prepuce and glans, and it appeared that he had never had any discharge from the urethra. Black wash was applied, but without benefit, it was too irritating; the liq. plumbi subacet. dilut. was then ordered, which had the effect of materially lessening the irritation, and a few days before I discharged him it was so well, that I merely ordered him a wash of the sulphate of zinc, under the use of which he was so nearly well that it would have been absurd for him to have any longer occupied a bed in the hospital. Now, this is an interesting case, in more respects than one; in the first place, it shows the propriety of generally treating with stimulants those cases of rheumatism in which the pain is relieved by warmth, a practice I was always in the habit of inculcating when I lectured on materia medica, and more especially when speaking of guaiacum, and it also serves to show the immense superiority of iodine over blisters for the purpose of exciting absorption; here both blisters acted fully, and discharged freely from the surface for many days, but did not in the slightest degree lessen the swelling, whilst from the third day of commencing the iodine it might be seen daily to diminish.

I remember that when it had been discovered he had excoriation on the penis, and was supposed to have gonorrhœa, because he had no discharge from the urethra, some of the gentlemen at my going round asked me whether I did not consider that the rheumatic affection was referable to that cause.

In fact, that it was a case of what is called gonorrhœal rheumatism, I said then that I did not consider it as such, and I am of the same opinion still. In the first place, he had no gonorrhœal discharge from the urethra, in the next, there was no proof of what is called preputial gonorrhœa, there was simply excoriation; and, thirdly, I confess I am somewhat sceptical as to the existence of a disease entitled to the special appellation of gonorrhœal rheumatism. In consequence of having been officially attached during the course of

my life to three large institutions, I think I have seen as much gonorrhœa as most men in this town. I have several times seen rheumatism supervene on gonorrhœa, and, indeed, seeing that both diseases are so common, that very few of us go out of the world without having had gonorrhœa, and seeing how many also have rheumatism, it would be strange indeed if they did not occasionally happen to meet together. I never witnessed a case in which I could not (at least to my own satisfaction) trace the rheumatic affection to the ordinary exciting causes, and if we are to admit any specific cause through absorption of the poison, then I conceive we ought to meet with it very much more frequently than we do.

At the same time, I can readily imagine that in certain irritable constitutions predisposed to rheumatism, the constant irritation produced by the inflamed condition of the urethra, will render such individuals much more susceptible of rheumatism upon being exposed to any even of the slightest exciting causes of that disease. I may be wrong, but it is my opinion, and you have a right to have it.

I recollect that Sir Astley Cooper, in his lectures on Surgery, used to recommend olibanum, turpentine, or copaiba, in gonorrhœal rheumatism, but I have seen it come on while the patient has been taking copaiba in large quantities. And in the majority of cases that I have witnessed, the inflammation has been quite as acute as we find it when unaccompanied by gonorrhœa, general or local depletion, (the latter, perhaps, to be frequently repeated,) together with colchicum, and yielding only to the ordinary treatment of acute rheumatism.

It is true that I have sometimes seen the rheumatic affection thus supervening gonorrhœa, less quickly cured, not yielding so readily to the treatment, but I believe that is attributable to the patient's system having been rendered more irritable from the inflamed condition of the mucous membrane of the urethra, and thus keeping up a greater predisposition to inflammatory action.

The next case I shall draw your attention to is that of John Carter, a ship's carpenter, aged 63, who was admitted into Jacob's Ward, Feb. 7th. The account he gave of himself was, that a month ago, after drinking hard, he was suddenly seized one evening with great pain in the abdomen, attended by such difficulty of breathing as to feel as if he should be suffocated. He was taken to the workhouse, and bled from the arm, which considerably relieved his breathing; but he has had more or less dyspnœa and feeling of faintness ever since, and latterly his legs and feet have become swollen.

When he came to the hospital his countenance was pallid and anxious, lips pale; his dyspnœa and faintness was so great that he could not lie down, and he had not been able to do so for some days; was easiest in a sitting position, bending the trunk slightly forward; had suffered of late, at times, from palpitation of the heart on any exertion; the legs and feet were cold and œdematous, and his urine very scanty. Complained of pain in the right hypochondrium, which was tense, and painful on pressure; his bowels were open; the tongue moderately clean; pulse very small, feeble, and irregular, and not to be counted; he had no sleep, no cough; urine not albuminous. Upon listening to the chest the respiratory murmur was heard naturally over the whole chest. It was clear, therefore, that there was no pulmonary disease, and as it was heard at the lowest point on either side, there could be no effusion. On examining the region of the heart by percussion a duller sound than natural was elicited over a larger space; the impulse of the heart was felt labouring, as it were, and though not forcible, still totally obscuring the natural sound of the heart; and a bellows sound followed immediately upon each systole. There was no pain in the region of the heart, nor by pressure on the intercostal spaces. The heart appeared to be increased in size, but struggling with a load it had not power to free itself from. From the dulness on percussion over a larger space than natural, it was clear that the size of the organ was increased, and from the natural sound of the heart being obscured, I had no doubt that the left ventricle was hypertrophied, that there was slight dilatation with the hypertrophy, and that, though the parietes were augmented in size, the muscular fibres were, to some extent, softened, rendering the heart incapable of transmitting the ordinary quantity of blood at each contraction of the ventricle, which accounted for the extreme smallness and feebleness of the pulse; while the bellows sound, I believe, arose from some imperfection of the valve, and the dropsical effusion from the sluggish circulation. Now, though softening of the muscular fibres of the heart is most frequently the result of inflammation, still I cannot see any reason why it should not occur without inflammation, just as we see occasionally in other muscles of the body, which lose their tone and become soft and flabby. Believing, then, that in this case there was hypertrophy, with dilatation of the left ventricle, with softening of the fibres, which prevented the heart from discharging its contents at each systole, and that, therefore, there was in fact a constant state of congestion of the organ, I determined, though I confess with fear and trembling, to endeavour to relieve this state of congestion by abstraction of blood, and accordingly directed ℥ xij. to be taken from the arm, using the precaution of requesting Mr. Stone, the assistant apothecary, to be present when he was bled, in case of syncope occurring; and for the purpose of still further lessening the quantity of blood without increasing debility, I endeavoured to act on the kidney by increasing diuresis, by giving him squill, spirit of nitric æther, and acetate of potass, in con-

junction; and for the purpose of relieving the pain in the right hypochondrium, a blister was applied there.

The blood was taken, there was a thick layer of fibrin on it, and very little serum, not at all cupped, but the relief was immediate. The feeling of dyspnœa and anxiety so much diminished that he was enabled to lie down, and slept that night soundly; the next day, indeed, he was walking about the ward; the pulse was more distinct, and the action of the heart less labouring, but still both were feeble. The diuretic acted well, the quantity of urine daily secreted being four or five pints. In a few days the œdema of the feet and legs had entirely disappeared, and by degrees, as the action of the heart became less feeble and less labouring, though still the impulse against the parietes was nothing like that which, from the hypertrophy and dilatation, there would have been, had the muscular fibres possessed their natural tone. The bellows sound still continued. As the heart acted with greater freedom and power, the pulse at the wrist underwent a correspondent change. The blister had removed the pain in the right hypochondrium; but, after a time, the diuretics having produced diarrhœa, some pain returned there, and twelve leeches were applied, which relieved it, and for a day or two the diuretics were suspended, that is, the squill and acetate of potass; they were resumed, however, in three days, and on the 13th of this month he felt so well, that he said it was shameful to stay in any longer, as he felt perfectly equal to return to his occupation—that of ship-keeping.

My reason for believing that the softening of the heart, in this case, was not the result of inflammation, was, that he had never at any time suffered under any of the ordinary symptoms of inflammation of that organ. Of course it is impossible to prove that softening does really exist, unless by *post mortem* examination; but I am much better contented to discharge my patient relieved, and leave the nature of his affection open to dispute, than to have my diagnosis verified by an examination in the dead-house. Now, what are the symptoms which characterise softening of the heart when not co-existent with inflammation? They are, general languor, a bloodless, sallow complexion, quick, soft, and feeble impulse of the heart and of the radial artery, great diminution of strength, and dropsy, in consequence of the sluggish state of the circulation. All these symptoms were found in the present case.

In softening of the heart, the softening may be restricted to the lining membrane of the organ, and may affect the whole or only portions of it. The colour of the membrane, then, is altered, being sometimes redder, sometimes paler, than natural. When the muscular structure of the heart is softened, which, in fact, constitutes the true softening of the heart, it may extend to the whole muscular tissue of the organ, or may be confined to one of the cavities, or to some of the fibres only. The colour of the muscular structure is also changed, being sometimes of a bright violet, claret, or moreen, sometimes exceedingly pale, and occasionally of a yellowish hue, which Laennec has compared to the colour of dead leaves. By Bertin, the softening, with increased redness, is the result of acute inflammation, while he conceives the pale colour to be the result of chronic inflammation.

There can be no doubt that either species of softening is most commonly the consequence of acute or chronic inflammation; but, as I before observed to you, I cannot understand why the muscular fibres of the heart should not become flabby, without any inflammation having preceded, just as we see other muscles of the body become so in cachexy.

Andral recognises six species of softening of the heart: first, softening connected with active hyperæmia of the heart; secondly, softening connected with anæmia of the heart; thirdly, softening connected with atrophy of the heart; fourthly, softening connected with an acute alteration in the nutritive process (as in typhus); fifthly, softening connected with a chronic alteration in the nutritive process (as in a variety of chronic diseases); and sixthly, softening, which we are not yet enabled to refer to any morbid condition of the heart itself, or of the rest of the system.

Now, where the softening of the heart exists without any inflammation, tonics are generally useful; and the best we can employ are some of the preparations of iron. In the first instance, the employment of that or any tonic was out of the question, my object being to reduce the quantity of blood so as to relieve the heart from that state of oppression which, from the feeble condition of its muscular power, it was then labouring under. It was with this view that I bled him and administered the diuretics. Had he remained in the hospital longer, I should certainly have given him iron, but he feeling comparatively well was unwilling to stay longer; at the same time, I have no doubt that his dyspnœa and his dropsical effusion will return if he uses any very active exertion, or indulges in the abuse of spirituous liquors.

The case of psoriasis occurred in Elizabeth Blackburn, a married woman, ætat. 32, who was admitted into Mary's ward, Feb. 14. She stated that for the last two years she had been out of health, and that during this time she had been the subject of an eruption of considerable size on the right knee, just below the patella. She described the eruption as having been scaly, and unattended by itching or smarting. At present there was a small perpendicular ulcer, about the size of a sixpence, partly covered by a slightly conical scab, and having somewhat the character of rupiæ. The whole of the surrounding skin is of a copper colour, to the extent of several inches, and showing slight superficial cicatrices, as though there had formerly been several

other similar ulcerations. During the last six months a scaly eruption of an irregularly oval figure has appeared on the right cheek, the nose, the left side of the under lip, and the right arm, just below the elbow; the patches on the nose and cheek were partly covered by a thin, scaly, brownish-yellow incrustation; that on the lip is more irritable, looks redder, and when examined through a lens small scales were very evident; had very little smarting in any of the patches except the lip, which, on exposure to cold wind, itched, smarted, and then occasionally discharged a thinnish fluid; her health, which before was bad, she stated had been getting worse since the eruption on the face; has become much thinner; still there was no pain in the head or abdomen; her appetite was bad; tongue foul; breath offensive; bowels open twice or three times a day; menstruation regular; pulse 104, small and weak, with no sleep.

From the character of the eruption it was clearly psoriasis; the patches were oval, while in lepra they are usually circular; there was no elevation or increased redness of the margin, as in lepra, and the scales wanted that silvery whiteness which we commonly see in lepra; at the same time the two diseases are so closely allied, run so into each other, that I frequently meet with cases in this hospital in which the distinction can only be arbitrary, a circumstance of not the slightest moment, as it does not at all affect the treatment whether you call it psoriasis or lepra. Now in this case there was no active inflammation of the skin, it was simply irritable; there was no pain of head or abdomen, and therefore I did not think it a case calling for antiphlogistic treatment; I merely directed the ung. zinci to be applied, for the purpose of allaying the irritation; and as the eruption had such a coppery coloured appearance I suspected it was connected with syphilitic taint. Upon being questioned, she stoutly denied ever having had any thing of the kind; and as in these cases it is useless to pursue your inquiries, for there is little chance of arriving at the truth, I made up my mind to treat it as such, and ordered her gr. v. of pil. hydr. submur. comp. vi. d., with ℥xx. (which was increased to xxx.) of the liquor potassæ, ter die, and ℥vi. of decoction of sarsaparilla.

Now, under this treatment, her general health began quickly to improve; she soon slept well, and began to gain flesh; her mouth was slightly affected by the mercury; and on the 13th of this month she was so well as to be discharged, there being then nothing more remaining than slight discoloration of the skin.

Now in all these cases of eruption on the skin, whether the eruption be papular, scaly, or tubercular, if it assumes a coppery colour, however the patient may deny any syphilitic origin you will never do wrong by treating it by mercury, unless the patient's constitution should be so irritable, or so feeble, as to forbid its employment. Time having expired, gentlemen, I will defer what more I have to say until the next lecture.

DISQUALIFICATIONS FOR MARRIAGE.

Hernia—Aneurism—Phagadenic Bubo.

NEW PLAN OF TREATMENT

BY MEDICUS.

LIKE yourself, engaged for twenty years in obstetric practice, many delicate and confidential appeals have been made to the surgical and medical departments of my profession as a general practitioner. Among the rest, hernial and aneurismal tumours were submitted to my treatment, by young persons about to enter upon matrimonial engagements, as well as by ladies who were married, and resisted exposing their infirmities by wearing bandages or trusses. Brevity forbids me to remind you of the propositions offered for radical cure of *reducible hernia* by the operation as performed for strangulation, that is a proposal too formidable to be entertained or contemplated by a person in ordinary health.

Accident led me to the adoption of a safe and effectual procedure. A woman, in care of a bleach-field, wishing to renew her fire in a cold night, and not succeeding, she took the watchman's powder-horn and began to sprinkle some grains of powder on the embers, an explosion took place, one-half of the horn tore away the integuments and muscular fascia of the front of the arm up to the axilla, the other side of the horn peeled away skin, cellular substance, and tendinous aponeurosis of the hypogastric and right hypochondriac region, leaving part of the rectus and oblique muscles bare, and the side of the pubis exposed. On my arrival, I removed the sharp pieces of horn, ragged skin, and torn cellular membrane; finding the subjacent parts safe, the patient was laid in bed, the abdomen relaxed, and the knees *drawn up and fixed*, so as almost to meet the chin,

the loose parietes of the loins being supported by two cushions; by these means I was enabled to bring almost into contact the previously distant margins of the immense wound, retaining them by sutures, proper dressings, adhesive straps, and bandages.

In a short time adhesion took place, and the small oval space in the centre filled up by granulation; the aspect presented by the belly was now curious, her abdomen had been flabby and pendulous, but drawing round the skin of both *sides* to cover the *front* acted as a bandage furnished by nature; the region over the ring and pubis was retracted, or as if drawn back towards the spine, and no coughing, sneezing, or exertion could propel or protrude the firm and tight embracing parietes of that part.

I said to myself, here is an artificial truss, fixed in its right place by nature herself, one which will not shift its place, exert wrong pressure, excite adhesion of the sac, or permit descent in any direction along the space called the ring. I thought that "if a man did need a lesson now, here was a case would surely give it him;" the sides or columns of the ring were approximated or kept together night and day, and in every position or exertion of the body; unlike the application of a truss, no variation of these irregular parts could lessen or displace the band of pressure over them, whilst there was no operation, opening serous cavities, or dangerous exposures of interior tissues.

Her arm was treated in the same manner, its roundness enabled me to draw the remaining skin to meet, and what appeared a large flayed surface was well in four days. In like manner, considerable pressure was effected on the artery, and it was inferred that any dilatation of that vessel could be arrested or retarded by such a living sheath as the new tightened integuments effected here where all was previously sound.—*Here were furnished lesson the* 1*st on Hernia, lesson the* 2*nd on Aneurism.*

Soon after this, an anxious mother came to complain that her daughter was some years married but had no children; that she attributed this source of unhappiness to the feelings of chagrin, disappointment, and almost disgust, festering in her husband's mind, on discovering the *concealed rupture;* a feeling which excited a kind of nervous horror and distress at times when mutual endearments should take place; a truss had been tried but the vexation and chagrin were increased by this constant memorandum of a circumstance he took so anxiously to heart.

Prompted by this peculiar case, I explained the circumstances as above related, and the suggestion was gladly embraced. Assisted by my brother, an army surgeon, we pinched up all the fold of integuments we could grasp and press up by relaxed posture, and by pressing the skin and cellular membrane to a centre, the circumference of all we could push and raise up was then marked with ink, and found to be an extended space; finding it sufficient, and that no large vessels were in it, the portion was pinched up by assistants, and retained in their fingers, the flat of a knife was then laid on the abdomen, and the edge carried along through the elevated integuments, cutting in the inked lines at the base, and thus with one slice the patch was cut out, and thrown away.

A vast oval space was now left bare; the fascia over the ring was next pinched up, and sliced away in three or four layers, and the margins of the fibres of muscles about the ring touched with the knife, so as to be raw, and ensure granulations and adhesions; the distant edges were now drawn almost together, and retained by sutures, supported by compresses and proper bandages; marked care being taken to keep the knees and chin almost in contact, and the hips raised, as they were during the operation.

There was no medicine required, nor any after treatment; the small space left uncovered by the integu-

ments soon filled up by granulation; this object was purposely sought, as being supposed a more solid and fixed closing over the ring, and as a prevention of puckered or elevated seams.

Just as we expected, the space over the ring and pubis is drawn in, firm, unyielding, and unobtrusible; no effort could force down any portion of the internal parts, and all is now health, harmony, and happiness.

Again, a fine young man, of scrofulous aspect, was exposed to contagion. A real or supposed bubo was treated by the old system of salivation; the bubo burst; debility supervened; phagadenic ulceration rapidly advanced; every morning the lips of the wound had fallen in to a great extent. When I saw him, the groin, upper third of the anterior part of the thigh, and the front of the lower part of the pubis of that side, were one sphacelated cavity, with the tendinous expansions and vessels bare at the bottom.

Instant removal from a mercurial bed and atmosphere, filling the chasm with bark and barm, the administration of quinine, acids, oranges, and port, maintained expiring life; the part filled up, and in the process of healing, means were taken to approximate the edges of the sore by bringing the integuments nearer by position straps and compresses on the neighbouring parts; a year after recovery, phthisis set in, and proved fatal. On minute examination after death, and injecting the arteries, the femoral of that side was found diminished one third in calibre, as compared with the wax in the other. With respect to the parts under Poupart's ligament, no efforts could effect an artificial rupture through the *new structure*, a sound congeries of consolidated flesh, containing no movable or divergible fibres, or separate tissues, but a living band compressing the subjacent membranes at the weak point, so as to prevent their recession from each other, and, in fact, uniting them all into one mass; as far as it extended, fulfilling the office of a coronary ligament, exerting an equal pressure of adaptation, and causing the fibres below to act in direct and fixed lines, free from the weakness of divergence.

In fact, the "new insertion" was "impenetrable stuff," containing no fasciæ, moving surfaces, or permeable canals. *Here was lesson No.* 3.

At this time a gentleman was peculiarly circumstanced regarding a projected change of life, and an insurance which was to form a part of settlements: reducible femoral hernia vexed him since he was a boy, and now opposed a barrier to wealth and comfort. No surgeon could certify his case for the offices, and he was miserable.

You know, gentlemen, that I, a pupil of nature, have not rejected her lessons: I read to him the above story of the *new groin;* he had a terror of the knife and of blood, and was afraid of an excision which would strip away the covering of such a complicated corner as the groin.

I proposed to follow the lesson, No. 3, throughout, and to make a broad *ulceration*, "since we had it not;" and though I have now no fears of scooping out as much skin and cellular membrane as I can grasp and lift up off any region of the body, yet I knew the object could be otherwise attained.

I mentioned how equal parts of lime and pearl-ash boiled to a paste in a little water will lift us off a patch, of whatever extent we cover, in a week or two. I adopted this course, afterwards taking off eschar after eschar from the centre, till I had reached the desired depth, rendering the requisite portions raw. Granulation was commenced, and soon after the surrounding integuments were caused to approach nearer and nearer by position and pressure, and at last drawn so close as to compress the parts with such firmness, that hunting and every exercise were unable to cause the least appearance of the return of the former complaint.

Umbilical and other reducible herniæ were easily treated on the same principle.

I should sooner have submitted this subject of excision of the integuments to your readers, but waiting for an opportunity of observing its effects in aneurism, I am now happy to say that it has succeeded in a case in a manner to exceed my expectation; and that a natural living sheath now compresses a dilated artery, without risk or inconvenience.

DR. STOKES ON THE DIAGNOSIS OF PERICARDITIS.

THE diagnosis of this disease being founded, as Louis has well remarked, chiefly on negative evidence, any addition to our knowledge of its direct signs must have value. On this subject, however, I have nothing original to offer, but may state that in several cases I have been enabled to verify the observation of Collin, relative to the sound of friction, produced by the rubbing together of the surfaces of the pericardium, when they are covered with unorganised lymph, a sound which he compares to that of the creaking of new leather. But I can state further, that numerous modifications of this sound may be met with. It resembles the creaking of leather in some cases, the rubbing of two very rough surfaces in others. In some it may be confounded by an experienced observer with Laennec's "bruit de rape," and in others, may closely resemble the different modifications of the bruit de soufflet, with which I feel satisfied it has constantly been confounded. In many instances we have observed that the sounds in a single case have undergone a series of modifications, passing from the loudest sound of friction of two very rough surfaces, to a sound similar to the most faint bruit de soufflet; and in two cases we have (on applying the hand) felt the friction of the roughened surfaces of the pericardium in the most distinct manner, causing a violent "frémissement." In one of these cases we verified the diagnosis by dissection, and found the surfaces of the pericardium completely covered with a very dense coating of lymph, raised into rounded projections of several lines in diameter, and incorporated with the serous membrane. This was evidently the result of a chronic inflammation, and in one situation a strong adhesion was found. The cause of death seemed to be a recent attack, as the urgent symptoms were not of long standing, and a quantity of bloody lymph existed over the posterior and lateral portions of the heart.

It has occurred to me to see patients who had before enjoyed a good state of health, after an attack, presenting all the characters of an acute, but not very violent pericarditis. They had still some pain about the heart, palpitation, increased action of the organ, and irregular pulse; and on applying the stethoscope over the heart, I could hear a sound which many would call bruit de soufflet, but which I apprehend is produced not by any valvular disease, but by the friction of the two surfaces covered by lymph, as yet unorganised. I have been able to remove this sound by free leeching and counter-irritation in these cases; and believe that there is the most complete analogy between it and the frottement of Laennec, as arising from inflammation of the pleura.

Some time ago I saw a patient of Dr. Thwaites's, who presented the phenomena of hypertrophy of the right ventricle, with a sound so circumstanced, that I conceived there might be a narrowing of the right auriculo-ventricular orifice. On dissection, however, it was found that no such narrowing existed, but that the cavity of the pericardium was obliterated by adhesive inflammation. This interesting case has been published in the fifth number of this Journal. Now, I feel almost certain, that in this case I mistook this sound of friction for a bruit de soufflet, depending on a valvular disease; and this opinion is borne out by a fact stated by Dr. Thwaites, that on his first examination the bruit de soufflet was heard over the whole precordial

region, while on mine, which was more than a year subsequent, it appeared more partial. This the progress of the obliteration would account for; and, it is stated, that on dissection a portion of the surface, at the postero-superior portion of the left ventricle, was found, where the morbid action seemed more recent.

The healthy condition of the valves, in a case where loud and varying bruit de soufflet, with frémissement, existed, is strongly illustrative of my views on this subject. I am at present occupied in researches on this subject, the object of which is to distinguish this sound from the bruit de soufflet, produced by valvular disease. As yet I have arrived at but two results; one, its rapid removal (in certain cases) by an antiphlogistic treatment, which allows of the organisation of the lymph,—the other, that after it has been removed by treatment, a temporary excitement of the heart will not reproduce it, as we know occurs in cases of valvular disease. Its intensity, too, varying with the extent of dullness, is another sign, as connected with the quantity of liquid effusion into the cavity of the pericardium.

I have lately had the pleasure of meeting with a most intelligent American physician, to whom I showed some of my drawings and preparations illustrative of these views. He completely coincided with me, and mentioned several cases which he had lately witnessed in Paris, in which the diagnosis of Collin had been verified. — *Dublin Journal of Medical Science, No. VII. Vol. III.*

LACERATION OF THE PERINÆUM.—COHESION OF THE LABIA.—OPERATION.—SINGULAR RESULT.

BY R. STEPHENSON, M.R.C.S.E., FORT WILLIAM.

I SEND you a case to be inserted in your highly valuable and scientific journal, which will be interesting to the rest of my medical brethren.

Rose Hagan, æt. 35, a stout muscular woman, and of healthy habit of body, states that about seven years ago she was seized with pains of natural labour, and was delivered of a *living child*. She was attended by a country surgeon, who, through inattention, during the passage of the child through the soft parts, neglected to support the perinæum, consequently there was laceration of the soft parts; and, through want of attention in the after treatment, adhesion of the natural passages took place, with the exception of a small aperture, of the size of a swan's quill, left for the exit of the catamenia, with the assistance of purgatives and emmenagogues, from which she found some relief. The surgeon with whom I served my apprenticeship would have undertaken to make the necessary incision for the escape of the menstrual fluid, but he could not get any other medical man to assist him in the operation. He procured a vacancy in one of the provincial hospitals, in which she remained for some time, and was attended by two surgeons, who proposed the necessary operation, to which she submitted. They placed her on a table in the same posture as they do for the operation of lithotomy; they began the necessary incisions, but did not succeed in the operation, owing to a violent hæmorrhage that came on, so that they were obliged to desist. They then put her to bed, and she felt as if she was in a violent fever; and, through the inattention of the nurse, the parts adhered again. Instead of obtaining relief, she was put in misery all her life-time. As the operation failed, the parts got thickened and callous. She was sent home, as the case was reported to be incurable: and as the surgeons failed in the operation, procuring a natural passage for the catamenia, and the accustomed discharge not finding an outlet per vaginam, it forced its way through the glutæi muscles, and there formed a tumour at the inner and posterior part of the thigh. Near the periodical time of the catamenia she is affected with bearing down pains, similar to those of labour. This tu-

mour at the mentioned time has to the touch an evident sense of fluctuation, which is opened by means of an abscess lancet; the quantity that is discharged is from ℥ x to xij at a time; it is of a dark chocolate colour. She says that her bowels are always costive, and is in the habit of taking large doses of castor oil, and sp. of nitre, mixed also pulv. jalapæ. She complains of strangury, which is relieved in a great measure by the sp. æth. nitrosi; there are adhesions formed between the urethra and vagina. The patient is still living; general health good. I think this case worthy of your attention.

THE

London Medical & Surgical Journal.

Saturday, May 11, 1833.

REFORM IN THE MEDICAL INSTITUTIONS OF THIS EMPIRE.

Our predictions that reform must come, notwithstanding the sloth, the obstinacy, and the ignorance of those who have too long governed our public bodies, will ere long be fulfilled. The commission that was appointed to inquire into the state of the Scottish Universities, will most probably lead to considerations of deeper interest to the general welfare than was commonly expected. Lord Chancellor Brougham, with that anxious wish for the amelioration of all classes of society, which has so invariably marked his career, hinted in the House of Lords, that there were suggestions from others that remained to be considered before the government could avail itself of the labours of the commissioners. We feel persuaded, that it will be in vain for those who wish to keep things as they are, to attempt to deceive, to cajole, or to flatter the illustrious individual, who has under his jurisdiction the education, and the moral and intellectual improvement of so large a portion of the community.

That endeavours will be made to defeat the great objects which sensible men have long had in view, we are well aware, but to the Lord Chancellor we turn with confidence, and the full assurance that his vigorous intellect will grasp the whole subject, and that his master mind, which has so admirably been directed towards the improvement of his courts of jurisdiction, will not cease its splendid exertions till the science of medicine is practised with real benefit, for the happiness and welfare of mankind. We know that the system followed in France, and to which we directed our readers, giving them a complete view of its state, has been laid before the learned lord, and we fondly anticipate it will not meet with neglect from one whose indefatigable labours and vast improvements have been the theme of universal admiration, whilst they have shed over society the richest blessings. We have been the ardent admirers of Lord Brougham throughout the whole of his magnificent career, but how much more shall we have occasion to hail his name with our warmest tribute of esteem and approbation, if, when satisfied with the happy improvements and changes he has made in the administration of the laws, he turns his attention to objects of not less importance, but which have of

course a less claim to his consideration. We have the most sanguine hopes that ere much time has elapsed we shall have to congratulate the profession and the public upon such alterations, as will give satisfaction to all, save the deaf, who cannot hear, the blind, who cannot see, the iron-hearted, who will not feel, that the glorious spirit of truth and justice has arisen to dispel the sad mists in which Ignorance, Sloth, and Folly have clothed themselves.

MONUMENT TO THE LATE DR. BABINGTON.

The newspapers have told us that the sum of five hundred pounds has been subscribed for a monument to the late Dr. Babington. We are most happy to learn that a testimony of respect and esteem is about to be paid to the memory of an amiable, an excellent man, and we are persuaded that most of the members of the profession would have felt a pleasure in subscribing to it. Unfortunately, however, no opportunity was given; a private meeting was, we have heard, held at the house of Dr. Paris, to which a select number was invited: under such circumstances, we fear that the subscription will not be entered into with that unanimous and warm-hearted feeling which gives to a memorial its richest addition.

THE LONDON PHARMACOPŒIA.

From a paragraph of one of the journals, which stated that Dr. Babington was unable, from illness, to attend a meeting of the committee for the revisal of the Pharmacopœia, some hopes have been again excited, that the Fellows are about to give us a proof of their practical science, and favour us with a new edition of the Pharmacopœia, which, in its present state is, like the College itself, sadly in want of improvement; in fact, the state of the druggists' shops loudly demands it: what physician can dare venture to hope that any new medicine at present, which he prescribes, will be properly prepared, or that he can rely upon the genuineness of the new drugs furnished.

THE INFLUENZA.—THE WHITE CHOLERA.

The late epidemic has nearly disappeared in the metropolis, perhaps in consequence of the vast change that has taken place in the weather during the last week. The heat was 76° in the shade last Saturday, but has since decreased. The disease rages, however, in the north of England, and has appeared in Dublin; the vulgar call it the "White Cholera," and suppose it a forerunner of the blue diseases. Notwithstanding the warmth of the weather, diseases of the throat, wind-pipe, and lungs are still prevalent.

BRANDE'S MANUAL OF PHARMACY.

A new edition of this Manual has just been published. The work has been generally a favourite with pupils, and, from the chemical science of its author, has been not undeservedly ranked amongst the best productions upon pharmacy that we possess. The only point to which we can, however, unhesitatingly refer, as that on which he excels, is his clear mode of explanation of the chemical decompositions which occur in the different preparations, for some of his opinions upon medical points are not quite orthodox. He has given the latest analysis of the most important vegetable substances, and has brought down the history of the chemical inquiries on these subjects to the latest possible period. It is a work, therefore, which we may praise, as deserving the reputation which its former editions obtained.

ROYAL COLLEGE OF PHYSICIANS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,--Although a determined castigator of the Royal College of Physicians, and every way unwilling to say a word in their favour, I beg to observe that you must be in error (Journal, No. 66, p. 437,) when you say that Dr. Mason Good took a degree at Cambridge. I have always had the impression, that the eminent deceased had either purchased a Scotch diploma (while these were to be had as marketable commodities), or, as I am more inclined to think, a North American one was deservedly and without solitation conferred upon him. Dr. Good had connexions in the States high in literary reputation, in which he himself stood unsurpassed, if not unrivalled; though his case was illustrative of our blessed Saviour's remark, that "*a prophet* (or man of great acquirements) *has no reputation in his own country.*" In a former article on Medical Reform I have gone beyond your statement as to the rejection of Mason Good. You allude only to the *Fellowship,* to which I am not aware that he ever made pretension. He was, however, certainly *rejected* on an examination for the *licence!* avowedly on account of defective *scholarship!* but, in fact, because, upon being created *doctor,* he exhibited a little bad taste, and departed from the usage of frippery, by inserting in the newspapers a formal address to the general practitioners, of which body he had, down to the period in question, been one, devoting his towering mind and his indefatigable powers to every praiseworthy purpose, so as to disregard that *rise in the world* which an eye, attentive to what is commonly called private or personal interest, would have been constantly fixed upon. How many, alas! have we seen rise, merely because they observed others, more meritorious than themselves, slumbering upon opportunities which *they* were always on the alert to seize.

When Dr. Good was rejected he was the author of that monumental work entitled "The Study of Medicine," a work which deserves to survive even the ailments of mankind, and the very memory of medical science; and this work (before he became doctor) was PERMITTED *to be dedicated to the President of the Royal College of Physicians!!* Read this, foreigners! liberal encouragers of science and literature! and when you shall have read the astounding assertion, the writer will not take offence at its being pronounced *a falsehood* because it is totally and utterly irreconcilable with all which enlightened men can even *imagine* to be true!

I know that Dr. Hooper went to Cambridge, and so did the late Dr. Luke, of Cavendish-square, who had previously been in *general practice* in Cornwall; and I also know, that in doing so, the object of these two eminent and accomplished gentlemen was to establish their claim to the *Fellowship,* from which they were debarred by the pestle and mortar.

I conclude by exhorting all aspirants to the honour of the Fellowship not to "touch the forbidden thing,"—once a sinner always so.

I am, Gentlemen,
Yours, truly,
ALIQUIS.

DR. SIMON'S EXPLANATION OF HIS SYSTEM OF FEES.

To the Editors of the London Medical and Surgical Journal.

"Persécution est promotion."

GENTLEMEN,—Although not so valued a correspondent of yours as he who, like *Old Scratch,* finds out every thing which is likely to bring discord and paper war, I feel myself called upon to make a few observations to a kind of polite suggestion which I noticed in your last publication, and I trust you will give it a place "*dans votre Journal important,*" as it is intended to prove that I have not, as you wished to insinuate, by any act,

disgraced the list of the College of Surgeons *.

Trusting, at the same time, that you will make some allowance for my not exactly understanding "*les habitudes reçues parmi les médecins de la pays-ci;*" but whatever they may be, if I deviated from them you must attribute it to the extreme *pride*, selfishness, and illiberality of some of your "fashionable few" (as you call them); for to them I brought the most creditable and respectable recommendations from men of the first character in the medical profession, and from the *very* highest personages in Ireland, &c. &c. I, (as a goose,) intrusted some of them with my views of practice, and "*que pis est,*" with my circumstances. They promised to aid me, but, alas! what did they afford me? and what became of their "fine promises," which, like old delft, fell to pieces? To do justice to their considerate humanity, however, they made it a point (not even every one to whom I brought letters) to send me one patient *a-piece* (with the exception of one or two); and the very gentleman (down Charing-cross) who was chiefly the cause of my coming here, in consequence of his *decided promise* to support me, *never sent me a single patient,* and humanely gave me an advice which, had I stuck to it, would have led me to my ruin and that of my family. I paid my respects to my *protectors,* as I used to call them, occasionally, to remind them of their promises, but my visits "*furent aussi utiles qu'un cautère sur une jambe de bois.*" One physician "qui aurait préferé voir un clou sur la fesse que de me voir derrière lui," in a hurry showed me his memorandum and his long list "de visites à rendre," and emphatically said to me, "how can I attend to you when I have so much to do?" "I wish you would let me attend a portion of them," *lui repliquai-je.* "Really, monsieur, I think it would be better for you to go back to Paris." *Quel sentiment! quel humanité!* I also remarked, how the habit of receiving *fees* had increased their organs of acquisitiveness and diminished their benevolence. I had nearly exhausted my small funds;—reflecting, then, on my critical situation, I said to myself, "shall I suffer myself and family to starve while I have *three* diplomas in my pocket? But how get into practice?—my 'friends and protectors' are all in the medical world, and will they forward my views?" "No," said a candid friend of mine to me, "don't depend on them. But," continued he, "you are a Frenchman—adopt some plan that may bring you into notice;" and all of a sudden I had recourse to one of your valuable publications of the 9th of March last, in which you so disinterestedly gave an account to your readers of the various modes of proceeding in France, stating, in article XVI., that the fees of junior doctors in medicine and surgery were from 10*d.* to 4*s.* 2*d.* a visit or operation, and increased from ten, fifteen, to twenty francs a visit, according as the practitioner became eminent "*ou plutôt à la mode.*" I concluded from that, that you meant to insinuate that doctors' fees here were too high, considering the badness of the times; and it induced me to frame a list of terms, not intended for *high folks,* but for mechanics and shopkeepers, who might not have so much as would pay for the making up of the gratuitous prescriptions of your "*charitables* practitioners," and to such alone did I intend to offer real advantages. My offering to give to them medicines *free of expense* will show that I must be acquainted at least with pharmaceutical preparations and the compounding of medicines (though but a Frenchman).

If I may be permitted, I will now give you the account of a case I had in hand last week, and leave you to judge whether it will be considered as an act that will bring disgrace upon the profession because the fee received was only 2*s.* 6*d.*

* We alluded to others, for we were not aware that Dr. Simon was a member.—Eds.

A man of the name of William Curray, of Fleet-street, was sent to me suffering the most excruciating pains from a retention of urine, which he had not been able to void for nearly three days. I laid him down on my sofa, gave him some sedative and anodyne medicine, and after a while I tried my new invented *self-injecting instrument* (witnessed by one of the first physicians of this end of the town), and I arrived just at the seat of stricture, which was so contracted as hardly to admit of a bougie of the size of the stillet, No. 1. to pass through this capillary stricture. In a comparatively short time I was enabled to empty the bladder, which gave instant relief to the patient. He gave me the fee of 2*s.* 6*d.*, for which, not to mention the two hours of time I devoted to the case, I gave the man the value of from four to five shillings worth of medicines.

I will now ask if the name of the surgeon who did this act of humanity disgraced the list of the College because he took less than the usual fee?

Now, permit me to say, that I shall be most happy, at any time, and without hesitation, to show you my collection of useful instruments, whether philosophical or surgical; and, as the inventor of many of them, I anticipate you will not entertain, then, so unfavourable an opinion of me, as it appears you now do; and that I will be able to prove to you that I have in my possession as many means of rendering myself useful to suffering humanity as any of your *grandees;* assuring you, at the same time, that I have no objection whatever to the *guinea fee,* but, as my charges are not sufficiently attractive to bring such *grist to the mill,* I must be content to receive a few five shilling fees, which will be sufficient to make my "pot boil," until better times come.

I have the honour to be,
Gentlemen,
with great respect,
Your very humble and obedient servt.

P. Simon, M.D. M.R.C.S.L. &c

[We insert the preceding letter because Dr. Simon, who is a member of the College of Surgeons, considers that our notice of his terms was calculated to do him injury. Our strictures applied to others and not to him, for we were not aware that he belonged to any of our medical institutions. It appears that he is not a licensed apothecary, and, in order to evade the act relating to pharmacy, charges for advice and gives his medicines gratuitously. We by no means object to the plan, it is just as respectable as giving advice gratis and charging for medicines. It is even more respectable than circulating paltry hand-bills, after the fashion of the no cure no pay gentry, and offering the medicines for less than the prime cost, and promising more rapid cures than can be performed by others. How humiliating to reflect, that regular surgeons and apothecaries descend to the shameful system of puffing adopted by the most unprincipled empirics of the day; and we imagine, that the next step of this most respectable portion of the faculty will be the posting of their bills in certain parts of the capital, in juxtaposition with those concerning the pilula salutaria, the itch cured by smelling, Mr. —— defies the world, cancer cured without cutting, and the *universal* vegetable pill, and incurable diseases cured at No. ——.

However degrading this system, we are approaching to it very rapidly, for the sale of patent infallibles forms a prominent part of the business of certain practitioners, and the system of circulating or posting puffs is only going a step farther. We think the College of Surgeons and Hall ought to put a stop to such a system of imposition; and we maintain the opinion of the faculty in all countries, that physicians and surgeons, who swear to use the best remedies for the recovery of the sick, violate their oath and contract with the public by recommending patent medicines, of whose composition they are ignorant, and which are not the best remedies,

but the mere inventions of illiterate pretenders to physic.

We have given mortal offence by denouncing this system, but all the respectable portion of the profession are of our opinion. It is only adventurers, who are threatened with want, that resort to the system we denounce; the respectable general practitioners supply no medicines but such as are ordered in the pharmacopœias. —Eds.]

CAUSE OF THE VARIATION OF THE OBSTETRICAL ACTION OF THE ERGOT OF RYE.

BY MM. BOETTCHER AND KLUGE.

The obstetrical properties of the ergot are even still so much controverted, that all the observations which can fix the opinion of practitioners on the degree of its efficacy ought to be collected. We here present some new facts which will tend to illustrate this point of therapeutics.

M. Boettcher, apothecary at Menselwitz, in the Duchy of Allenburgh, having thought that the diversity of the action of this medicine might depend on the period at which it was collected, got in a certain quantity of it *before* and *after* the harvest, so that in the first case he took away the grains of the ear while still in the ground, whilst in the second he gathered them in the threshing-floor, where the rye was threshed. He directed the separate products of these two crops to the Minister of Public Instruction at Berlin, who remitted them to Doctor Kluge, Head Physician to the Hospice de la Maternité. The medicine was administered to 15 women only, the quantity not being large enough to allow it to be given to more. That the ergot might not produce any bad effect in the mother or child, Dr. Kluge took care not to administer it until the neck of the uterus was beginning to dilate, that the pelvis should be well formed, and that the child should be placed in a favourable condition, the only circumstances under which we can obtain favourable results from the use of this medicine. The results of his comparative experiments:—

1st. The action of the ergot collected *before* the harvest was very energetic, whilst there was no activity in that collected *after* the harvest. 2nd. In several cases the use of the first renders unnecessary the employment of the forceps, particularly when the insufficiency of strength results from real atony, or a spasmodic contraction of the neck. 3rd. The ergot of rye collected before the harvest possesses the property of preventing uterine hæmorrhage, and if the application of the forceps was necessary in certain cases, where the pains had entirely ceased, this medicine may be opposed with advantage to the loss of blood which sometimes comes on at this time in abundance. 4th. The dose is from thirty to sixty grains, administered in ten grains at a time every ten minutes.

The experiments of Dr. Kluge have then confirmed the conjectures of M. Boettcher, and may explain the diversity of opinions which exists with respect to the obstetrical action of the ergot of rye. The manner of preserving it also exercises considerable influence on its efficacy. We know that Dr. Ryan, of London, has ascertained that when this medicine is exposed to the air, it loses all its qualities, whilst it may continue very active two years after its collection, if care be taken to keep it in bottles hermetically sealed.—(*From the Allgemeine Medicinische Zeitung, 10th November,* 1832.) — *Dublin Journal of Medical Science, May.*

CHEMICAL ANALYSIS OF THE ERGOT OF RYE,

BY A. A. L. WIGGERS.

The experiments made by the author have shown him that the ergot of rye contains in great abundance a thick oil, a vegeto-animal substance, so susceptible of decomposition, that it

evolves ammonia by its mere distillation with water; and, lastly, a particular colouring matter. In 100 parts of the ergot of rye Mr. Wiggers has found

A white thick oil .	35·0006
Fatty matter, rather soft, crystallisable, white, of a particular nature	1·0456
Cerine	1·7578
Spongy substance . .	46·0862
Ergotine . . .	1·2466

Op. cit.

[By pharmaceutical analysis it is ascertained that the constituents of the secale cornutum are, according to Mr. Battley,

1. Resin.
2. Extractive.
3. A *highly volatile principle.*
4. A free acid (muriatic).
5. A peculiar animal matter.
6. Inert matter.

When subjected to combustion it is shown to contain

1. Muriate of soda in large proportion.
2. Sulphate of soda in small proportion.
3. Inert matter.

Distilled water abstracts from the diseased secale cornutum, the constituents No. 1 to 6 above-mentioned, to a great extent, and if due regard be paid to the operation, in condensing to a state of extract, the whole of the constituents previously absorbed by the water may be reproduced.

Five and a half grains of the watery extract, made by cold infusion, are equal to thirty grains of the secale cornutum.—Eds.]

USE OF THE TREPHINE IN EPILEPSY.

The following interesting case has been furnished us by Professor Dudley, being the sixth of the sort which has occurred in his hands. The other five cases were related in his paper on "Injuries of the Head," published in the first number of this journal. The success of this practice establishes two important principles in surgery:—1st. That the brain will bear severe mechanical irritation for a great length of time, without fatal disorganisation; and, secondly, that the use of the trephine under such circumstances may restore the organ to its former healthy condition. The cases of Mr. Cline, first published, we believe, in the paper just referred to, bear only a slight resemblance to those of Professor D., and are not meant by him, or by Sir Astley Cooper, who has since noticed them, to establish these principles so valuable in practice.

Mr. ——— received a gun-shot wound on the head in the month of March, 1832. On examination next day, his physician took from the wound a number of small bones, when, by reason of an injury done the dura mater, some brain escaped. So soon as the bones with the disorganised brain were removed, he was dressed, and at the expiration of two months he was thought to be well. The patient states, however, that a slight discharge continued to issue from the wound, and after some months, epileptic convulsions, with a great derangement of the general health, ensued. It was then discovered, on examination, that the matter issued from the surface of the brain, and that the cranium appeared to be diseased. Under these circumstances he came to Lexington for assistance, his friend having furnished the preceding narrative.

On his arrival here his general aspect was that of an individual who had suffered greatly from derangement of the cerebral and chylopoietic functions. A cicatrix of two and a half inches in length, on the central and posterior portion of the right parietal bone, pointed out the original injury.

On two points of the cicatrix were discovered small sinous orifices, from whence was discharged an unhealthy pus. By the aid of a common probe diseased bone was detected.

The trephine was applied in the direction, and on one side of the original fracture. So soon as the seg-

ment of bone was removed by the trephine, isolated portions of bone were discovered beneath the dura mater, in a cavity of some dimensions occasioned by the absorption of the brain. Three of these, amounting in size to the thumb and finger nails, were removed, together with a morbid growth from the surface of the wounded dura mater. Simple dressings were then applied, and renewed occasionally for the week, when the patient was discharged, free from all embarrassment, both in the corporeal and intellectual functions.—*Transylvania Journal, April,* 1832.—*American Journal of the Medical Science, February.*

CASE OF HEREDITARY HÆMORRHAGIC TENDENCY.

BY JAMES N. HUGHES, M.D., OF KENTUCKY.

On visiting the house of a repectable farmer of this neighbourhood, my attention was directed to the case of a youth ten or twelve years old, which appeared to be rheumatic, and which was so pronounced. The correctness of my opinion was called in question by an old lady present; who was herself a member of the family, and intimately acquainted with the history of the case. On further inquiry I ascertained it to be one of hereditary origin, the rheumatism being only the sequel of another affection to which the boy had been subject from infancy, viz. hæmorrhage. Learning that this disease was common in every branch of the N. family, of which that of my friend, Mr. P., was one, I inquired particularly concerning it, when the following facts were communicated:

1st. That spitting, vomiting, and purging of blood; bloody urine; bleeding at the nose; extravasations of blood among the muscles and integuments of the body generally, especially of the extremities, producing dark discolorations and swelling, attended frequently, after a few days' continuance, with obtuse pain and stiffness, and copious and obstinate hæmorrhage from very inconsiderable incisions, on whatever part of the body they are made, have been exceedingly common among the male members of the connexion.

2nd. That the hæmorrhage, whenever it has manifested itself, has been invariably attended with rheumatism to a greater or less extent.

3rd. That the slightest pains or contusions have generally been followed by rheumatism of the part.

4th. That the majority of the males, who have arrived at old age, have been much disabled by rheumatism.

5th. That on the approach to old age, the tendency to hæmorrhage has been less manifest.

6th. That a considerable number of the males have died in infancy and childhood.

7th. That deaths immediately from the loss of blood have been frequent; several resulting from the employment of the lancet, some from accidental wounds, others from various internal hæmorrhages, and two of the number, simply from the application of blisters, —"*the blisters,*" in the language of my informant, "*drawing blood instead of water.*"

8th. That of the two diseases, hæmorrhage and rheumatism, the former has always maintained the priority.

9th. That the females, though in no instance sufferers from this predisposition, have, nevertheless, invariably transmitted it to their offspring.

And 10th. That the predisposition in question can be satisfactorily traced as far back as the fourth and fifth generation.

We present the above as facts, upon the authority of several intelligent and highly reputable members of the family to which they relate; a personal acquaintance with whom enables us to repose the utmost confidence in their communications.—*Ibid.*

CASE OF POISONING BY RHUS RADICANS.

Dr. A. A. Gould relates in the Nov. number of the *Medical Magazine*, the case of a lad about twelve years of age, who, while in the country, about a week previously, had come in contact with the poison ivy, *rhus radicans*, which had produced its specific virulent eruption. The left arm and both legs were very tensely swollen, and their surface strongly resembled the denuded surface of a blister, scald, or burn, in a suppurating state. The similarity suggested to Dr. G. the trial of the chloride of soda, which has been successfully used in scalds and burns. He accordingly directed as follows:—℞. Sodæ chlorid. ℥jss.; aquæ, ℥viij. m. ft. solut.

The inflamed parts were first washed in Castile soap and water, and then cloths dipped in the solution were kept constantly applied, and he was to take a cathartic of sulphate of magnesia. On the second day Dr. G. called and found the eruption dried up and the patient nearly well. "It was somewhat gratifying," he remarks, "to find in this instance a 'rule which worked both ways.' The success of the solution in burns had suggested to me its use in this case; and its success in the present case suggested to the mother its use in burns, and she desired me to give her the recipe, that she might avail herself of it for burns."

Dr. Perry has since employed the chloride of soda in a case of poisoning by the same plant, and with prompt relief.

CHLORIDE OF LIME IN OZENA.

BY W. MACLAY AWL, OF SOMERSET, OHIO.

I take great pleasure in being able, by the following case, to corroborate the success of this valuable remedy in chronic purulent discharge from the nose, recommended in the 11th number of *The American Journal of the Medical Sciences*, by William E. Horner, M.D., Adjunct Professor of Anatomy in the University of Pennsylvania. It is a most intolerable and filthy disorder which has hitherto, I believe, resisted the ingenuity of the most respectable in surgical skill, and the prospect of a certain remedy will doubtless claim for its discoverer the thanks and respect of the profession.

Early last spring I was requested to prescribe for this offensive disorder, by Mr. H——, a most respectable and worthy citizen of Somerset, Ohio. He was by profession a chair-maker and sign-painter, and thirty-seven years of age. With the exception of painter's colic, to which he was occasionally subject, his constitution and health might be called good. He could assign no particular cause for the disorder, unless it had been excited by the frequent colds to which he had been subject in the preceding fall, or that the lead had affected his nose also. His character was a sufficient guarantee against any suspicion of syphilis. The disease had first begun about the commencement of January, 1831, by repeated and severe attacks of acute pain above the eyebrows and lower parts of the forehead, to which was often added, when the sufferings became most severe, more or less pain and inflammation in the eyes themselves. Bleeding, purging, blistering, and various other remedies had been used with little or no benefit, and the attacks continued to increase in frequency and severity for two months, when the nose suddenly opened, and there followed a copious discharge of the most offensive muco-purulent matter; it was from but the one nostril at first, though the other subsequently became affected. The running was most troublesome and abundant early in the morning, the nostril by that time having become perfectly full. At night, especially, if he chanced to sleep upon the back, the matter would run down his throat, and by its offensive character produce so much sickness as most generally to destroy all appetite, at least, for breakfast. During the day, the ready opportunity of blowing,

rendered the discharge much less disagreeable, but the constant effort kept his nose always uneasy, and more or less painfully inflamed, and if any sudden cold, to which he appeared remarkably subject, caused the running to stop, the original pain and distress returned immediately to the forehead, nor would it again be relieved, until a more copious discharge ensued.

At my request he commenced the use of the chloride of lime on the first of March, 1831, by putting a teaspoonful into a cup of water, and injecting the clear liquor three times a day, high up into the nostril. Its effects were at first very severe, made him sneeze terribly, and he did not continue it long before it produced both so much pain and hæmorrhage, as obliged him for a week to suspend it altogether. At the end of that time he began again; the effect was not so severe as before, and he determined to persevere. It always produced a more copious discharge, and did much service in correcting the fœtor of the matter, but he had continued it three times every day for at least four weeks before he was satisfied that it was producing any permanent change. Nearly about the same time the other nostril also commenced running, after which he improved so fast, that by the end of June the cure was complete. It has not yet returned in the slightest degree.—*Western Journal of the Med. and Phys. Sciences, July*, 1832.

CASE OF DISCHARGE OF WIND FROM THE WOMB.

BY DR. RAY, OF EASTPORT, MAINE.

The subject of this case is 40 years old, has borne ten children, and when first under notice, was advanced into the fifth month of her tenth and last pregnancy. She was suffering, as was usual for her in that situation, extreme pain in the whole uterine region, from which she never had received relief by medicine. Her complaint, she told me, had been attributed, by a physician to whom her case had been described some years before, to *wind in the womb*, and its history left no doubt of the correctness of his opinion. It first made its appearance about seventeen years ago, while pregnant with her second child, though it was not till a long time after that she became acquainted with the true nature of her complaint. She was always sensible of the passage of wind from the vagina, but did not suspect there was any thing unusual in this circumstance. From that time she never has been free from the disease, whether the uterus were in the impregnated state or not; only that while in the latter condition, it is a source of no inconvenience, in the former it always has occasioned pain of the severest description. When not pregnant, she is merely conscious of the expulsion of air occasionally from the vagina, as often as two or three times a week, though its frequency varies at different times; and never has observed the air accumulate to such a degree as to produce any perceptible enlargement of the abdomen. Sometimes, though not always, the air was expelled with a distinct crepitus. When pregnant the air is less often expelled, and becomes by its accumulation, she thinks, the source of pain. But it is not till after quickening that intense sufferings begin, and thenceforth it continues with little abatement till delivery gives her relief. She does not think that the disease has increased in severity with time, or suffered any material alteration. During her last pregnancy, however, which was in 1831, she thought she experienced more pain than at any former period, and certainly, for four or five months, the sufferings of this poor woman were beyond description. Usually, about two P. M., she began to have lancinating pains in every part of the abdomen; these gradually grew more sharp and frequent till the latter part of the evening, when they began to diminish, and about two or three A. M.

they entirely left her. In the meanwhile, small tumours from the size of a walnut to that of a hen's egg, might be felt traversing the abdomen, under the skin, moving about and disappearing with considerable rapidity. When attempting to trace them, they might be followed for a moment, and then would suddenly vanish from beneath the fingers. This was the invariable course of the disease from the time of quickening till delivery. How often wind is expelled during pregnancy, I cannot ascertain; she merely states that it is far less frequent than when not in that situation. To alleviate the ferocious pain that she suffered, I gave her the acetate of morphia, and she thinks she could not have got along without it, though as it was, the long duration of pain and want of sleep,—for she seldom closed her eyes till the latter part of the night,—made sad inroads upon her general health.

Her temperament is of the lymphatico-nervous kind, and, until latterly, her health has been remarkably good. For the last four or five years, her digestive powers had been failing, and she has had more or less wind in the stomach and bowels, though previously, she is not aware that she suffered more from this cause than others. Being advised at one time, to make use chiefly of an animal diet, she adopted this regimen during more than one pregnancy, but could not see that her complaint was at all affected.—*Medical Magazine, Oct.*, 1832.—*American Journal of Medical Sciences.*

CASE OF VAGITUS UTERINUS.

BY J. R. WARD, M. D.

I WAS called on the night of the 4th October, to see Mrs. ———, about nineteen years of age, in labour with her first child. On examination, I discovered a natural presentation of the head; the pains were not very regular nor severe until between five and six o'clock A. M. of the 5th; between nine and ten o'clock the head passed the os externum, the perinæum in close contact with the upper lip. Supporting the head with the right hand, with the index finger of the left, I examined the neck to see if the cord had come down, and was likely to suffer compression. I found it had passed twice round the child's neck; following the course of either end of the cord, with my finger, I was under the impression that neither went directly to the umbilicus; but that the umbilical termination must have gone round the leg. The circulation in the cord became feeble, all pain ceased, and the head remained in the situation described. Recollecting with what confidence the late Professor Davidge had asserted, that a child might respire before it was born, I determined to make an effort to produce respiration. To accomplish this, with very little effort, I cleared the child's mouth from the soft parts of the mother, opened it with my finger, which I passed into its mouth, run it around the tongue, and immediately after the finger was removed respiration took place, and the child began to cry. Feeling no longer any anxiety about the safety of the child, I turned my attention to the mother, encouraged her with the assurance of being speedily delivered, and that the child would be born alive. After taking some warm drink, the pains returned; the second pain expelled the shoulders; on the expulsion of the breech, I discovered that the umbilical cord had passed, (as I supposed,) around the leg also. After waiting some time, I found it necessary to extract the placenta. The mother and her fine son are now in the enjoyment of good health. The latter will be able to say, what few perhaps can, that he cried stoutly before he was born.—*American Journal of the Medical Sciences, Feb.*, 1833.

MR. W. MACLEAN'S MEDICAL CASES.

Enlarged Liver, with Abscess of right Kidney.—William Semple, aged 38,

farm servant, of a sallow complexion, consulted me for what was considered a disease of the liver, under which he had laboured for nearly two years. Complains at present of frequent attacks of nausea, with vomiting of bilious matter. Tongue coated, bowels torpid; dejections of a clayey colour; troublesome thirst, skin hot and dry, pulse varying from 70 to 80 in the minute. Urine voided with pain, and in very small quantity, depositing a muco-purulent sediment. Has a feeling of pain over the region of the right kidney, and is frequently seized with rigors over the whole body. Has also been troubled of late with a short tickling cough, attended with purulent expectoration, and occasional pains in different parts of the chest. Complaints began about two years ago, during which he has consulted a variety of medical practitioners, and has been frequently bled, blistered, and purged. He has also taken mercury to a great extent, but with very little success.

V. S. ad ℥ viij.—*Pil. Gambog. co.* ij. *O. N.* —*R. Muc. G. Arab.* ℥ viij. *Tk. Op. Camph.* ℥ i. *Tk. Digital.* ℥ iij. *M. S. coch. mag. bis ind.*

In addition to these remedies, the right hypochondriac region was ordered to be well rubbed with ung. hydriod. potass.

Cough somewhat relieved, and expectoration moderate. Bowels freely opened. Continued pain on micturition, and urine still exhibits a copious muco-purulent deposit. Rigors less frequent, skin moist, pulse soft, blood drawn shows the buffy coat.

Disease apparently increasing. Pain in micturition very severe, and he now feels occasionally acute pain over region of the right kidney, extending along the ureter. Cough and other symptoms rather stationary, but his appetite is very indifferent, and his body is emaciating.

A dozen leeches were ordered to be applied to the back, followed by a large sinapism, and the warm bath prescribed. These means and those previously recommended, were persisted in during the winter and spring, and were occasionally attended by temporary mitigation of the symptoms. The reports during that period it is unnecessary to insert. His disease appeared to gain ground, though slowly; hectic fever and diarrhœa at last supervened, and he died on the 8th of April, 1828.

Sectio Cadaveris.—The body was opened twenty-four hours after death. Great general emaciation; lungs adherent very firmly all round, from sternum to spine; right lung in some parts indurated, and having many tubercles in its substance: its upper lobe approaching to gangrene. In the substance of the left lung there was an abscess containing about four ounces of pus. Heart preternaturally small; liver much enlarged and indurated, and having the appearance of numerous small superficial ulcers on its surface. It weighed, when removed from the body, five pounds *tron.* Gall bladder small and empty; mucous coat of stomach thickened, and pyloric orifice contracted. Considerable disease of colon and rectum, which parts appeared verging to a gangrenous state. Spleen excessively soft, and easily torn with the fingers. Right kidney adhering to the peritoneum, and containing in its substance about ten ounces of purulent matter. Cavity of ureter much enlarged, and its coats thickened; left kidney quite natural in appearance; urinary bladder contracted.—*Glasgow Medical Journal, New Series.*

Apoplexy, with softening of the Cerebrum, and Abscess in Cerebellum — Mrs. Watson, a pauper, aged 80, complained for several years of violent continued headach, accompanied with tinnitus aurium, impaired vision, and occasional vertigo, with partial confusion of mental faculties. Although the headach was constant, she had besides occasional darting pains of a more severe nature in the head, and she was subject to frequent rigors and a constipated state of the bowels. For

these symptoms she had the usual routine of practice—leeches, blisters, purgatives, &c, but with partial relief only. For a few days before her decease the symptoms were aggravated; the vertigo was so great that she was unable to walk without staggering, and nearly falling. She complained of a great weight in her head, so that she could with difficulty raise it from her pillow. In one of the attempts to raise herself she fell forward to the ground in a state of complete insensibility. I found her with stertorous breathing, dilated pupil, slow oppressed pulse, and all the other symptoms of oppressed brain. The jugular vein was immediately opened, and twenty ounces of blood drawn off; her head was shaved, and a blister applied to the scalp; but these means were unavailing, she continued insensible, and expired in a short time.

Autopsy.—The head was opened fourteen hours after death. On removing the skull-cap, about four ounces of extravasated blood escaped. The dura mater and tunica arachnoidea were preternaturally thickened, and covered with numerous small tubercles about the size of peas; one about the size of a kidney bean was attached to the falx. The contents of these, when cut into, were of a cheesy consistence. Surface of tunica arachnoidea was coated over with a covering of coagulated lymph. The whole of the cerebrum unusually vascular; right hemisphere, throughout its whole extent, in a softened state. Lateral ventricles nearly filled with serum. In the substance of the right lobe of the cerebellum an abscess existed, containing two ounces of purulent matter. Basilar artery was found ruptured, and the medulla oblongata coated with lymph.—*Ibid.*

CORRESPONDENTS.

Professor Graves.—The matter shall be attended to forthwith. The communication dated April 30th, was only received this day, May 8th.

Mr. Bird.—Our correspondent should have been content in asserting, that he had used chlorine fumigation at the Cholera Hospital, St. Pancras, without success, before the plan was tried on a large scale by Dr. Sanders, but he proceeds too far, in our opinion, to become the defender of the whole profession in London.

Mr. Swift.—We are much obliged by the suggestion and have completed arrangements to act upon it.

A candid criticism of the metaphysical works will greatly oblige us.

A Constant Reader must have been very inattentive, or he could not be ignorant of the existence of a College of Surgeons and Apothecaries' Hall in Dublin.

A Friend to the Concours is too sanguine. We congratulate him, however, on the adoption of a petition by the meeting of the Profession at Saville House on the subject.

A King's College Student complains that gold medals are not to be awarded to all the medical classes. He also thinks it remarkable, that the medical department of the institution was entirely overlooked by the annual general meeting, while every other department was lauded in the highest terms of praise.

A Clinical Student.—It would be more instructive, were Clinical Lecturers to classify diseases, than to describe the same species half a dozen times over.

Crito.—It would be invidious and dangerous to offer strictures on surgical operations, as this would be coming too close to professional reputation. The press cannot with safety declare the truth, so far as character is concerned, for according to the unchristian and sophistical law of this realm, "the greater the truth, the greater the libel." We, on the contrary, firmly believe the sacred proverb, "*Magna est veritas et prevalebit.*" We believe that the ignorance, rashness and inhumanity of those who perform the most dangerous operations without the slightest prospect of success, but merely for the purpose of gulling medical students, will receive, ere long, the reprobation of every enlightened medical practitioner in the kingdom. Students are astonished at the dexterity of operators, and shocked at the horrible sufferings of human beings under the knife; but they never reflect upon the results, and upon the death of the patients, which occur in a few hours after removal from the operating table. This pure surgery is inhuman and disgraceful to the age and country in which we live.

Amount of Subscriptions already received in aid of Dr. Ryan . . £226 16 6

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THE

London Medical and Surgical Journal.

No. 68. SATURDAY, MAY 18, 1833. Vol. III.

LECTURES
ON THE
PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,
BY PROFESSOR SAMUEL COOPER.
Delivered at the University of London, Session 1832—1833.

LECTURE XXXVI., DELIVERED JAN. 2, 1833.

Gentlemen,—In the latter part of the lecture on Monday evening, I entered a little way into the long subject of *fractures;* I noticed the general division of fractures into *simple* and *compound, comminuted* and *complicated;* I called your attention to another division of them into *transverse, oblique,* or *longitudinal* ones, according to the direction of the fissure; I adverted to the general causes of fractures, namely, external violence. I told you, that a bone may be broken by it in two ways, either by its being applied *directly* to the injured part of the bone, or else to some point more or less distant from the fracture. I also mentioned to you several circumstances which render a fracture *complicated,* such as hæmorrhage, the wound of some important viscus, as of the lungs, when the ribs are broken, in which case the additional complication of emphysema may be produced; and I showed you a preparation, demonstrating a fracture of the rami of the ischium and pubes, where the displaced fragments had occasioned laceration of the urethra, and effusion of urine into the cellular membrane of the perinæum and scrotum; but, gentlemen, the circumstances, rendering fractures complicated, are exceedingly numerous, and others not yet specified by me, I shall have opportunities of alluding to hereafter. Hæmorrhage accompanies fractures of the bones of the leg more frequently than fractures of any other bone, except, perhaps, such as implicate the anterior and lower angle of the parietal bone, in which accidents the spinous artery of the dura mater is usually ruptured, though the hæmorrhage is then not external, but takes place upon the dura mater.

Fractures may happen at any period of life, but they are more common at some ages than others. Particular bones, too, are broken with remarkable frequency in young persons, while certain other bones are more usually the subject of the accident in aged individuals. In children, the femur, the humerus, and the clavicle, are very often broken; in adults, the bones of the leg and forearm, the femur, humerus, clavicle, and ribs; and in old persons, the neck of the thigh bone, suffers in numerous instances. The functions of some of the bones render them very liable to fracture; thus, the radius, which supports the hand, and receives all the impulses communicated to that busy part of the limb, is far more commonly broken than the ulna. The clavicle, which keeps the shoulder in its right position, and supports, in the manner of a pivot, all the motions of the upper extremity, is particularly liable to be broken. I have said, that fractures may occur at all ages; but, as the texture of the bones varies at different periods of our existence, some differences in their liability to fracture will be created by this circumstance. The quantity of earthy matter in the bones of children is comparatively small; but as man advances in years, the proportion of this ingredient increases, while that of the animal matter diminishes; the consequence is, that they are rendered considerably more brittle than in the early period of life. In children, the large proportion of animal matter in the bones communicates to them a degree of elasticity and flexibility, far exceeding what is noticed in the bones of older subjects. In children, the bones are also much protected by the quantities of adipose substance, and the muscles are not yet sufficiently developed to act violently upon them. The bones of children ought, therefore, to be very rarely broken; but their venturesome tricks and carelessness in some measure counterbalance the advantages which I have been noticing, and explain the reason why the fractures of particular bones are tolerably frequent in the early periods of life. In adults, in whom the texture of the bones is actually strongest, one

might expect a corresponding diminution of the frequency of these accidents; but the protection of firmness of texture is counterbalanced by the many dangerous employments in which a large class of society is engaged, in the long interval between childhood and old age. In full manhood, too, the muscular system has acquired its greatest force, and hence fractures of the bones of adults are very common indeed. You should next understand, gentlemen, that a predisposition to fractures is known to be brought on by certain diseases, as, for instance, syphilis in its worst and most aggravated forms: this thigh bone, which I now show you, belonged to a person who had been taking mercury a little while before his death for venereal complaints,—in fact, you may observe there is a node on the bone; now the femur of the opposite side, contained in the museum, broke almost spontaneously, that is to say, from the slight action of the muscles while the patient was turning in bed. This is an instance of predisposition arising from the influence of impaired health in certain conditions of the venereal disease. In the advanced stages of cancer, the bones are also frequently broken by the slightest force or pressure, or the common and even very weak action of the muscles. Rickets, fragilitas, and mollities ossium, scurvy, scrofula, fungus hæmatoides, and certain diseases within the cancellated texture of the bones, are all well-known to communicate a predisposition to fractures. I may also remark, that, when a tumour presses upon a bone in such a manner as to cause the absorption of the osseous texture, of course a predisposition to fracture will be produced. The curious preparation, to which I now request your attention, is the remains of a thigh bone, which you see is absolutely reduced to a mere shell by the pressure of a tumour in the region of the ham, and you may readily conceive from the weakened appearance of it, that the slightest force would have been sufficient to occasion a fracture of it. Here, gentlemen, is another specimen of spontaneous fracture from disease; in this instance, there had been no fall or blow; it took place from the mere movement of turning in bed. Next, you see on the table the humerus of a boy, that was broken by shampooing, tried for the relief of some scrofulous affection, in fact, the bone was broken twice; the first fracture united, but the second did not do so. In this case, no doubt the texture of the bone had been weakened by scrofulous disease. I mentioned, that, cancer produces weakness of the texture of the bones and sometimes leads to fractures. The next preparation illustrates what a remarkable alteration any cancerous disease in the body may produce in the bones: this is part of the skull of a woman, who had cancer of the breast; some of the texture of the bone, you see, is absorbed, and an animal matter, which is sometimes a scirrhous substance, is deposited in its place; and, by a similar change taking place in one of the long cylindrical bones, it would become so weakened as to be broken with a very slight force. In the museum of St. Thomas's Hospital, there are, or used to be, two thigh bones, which were broken in consequence of the weakening of their texture by the effect of cancer; in the sternum of one of the patients, from whom they were taken, is a proportion of scirrhous matter, occupying the place of the earthy matter which has been absorbed. All pathologists know, that this effect of cancerous diseases in the body on various parts of the skeleton is a very common occurence.

I come now, gentlemen, to the consideration of the *general symptoms of fractures;* some of them are not very decisive, and may be called *equivocal*, because they may attend other cases. Of this description are pain, inability to use the limb, and more or less swelling; all these symptoms may be noticed in other cases, as in contusions, in the generality of dislocations, and in rheumatism; they afford, therefore, no positive information about the nature of the case. The symptoms on which you may put greater dependence are, first, the separation, which often takes place between the two ends of the broken bone; secondly, the inequality or projection of the broken part of the bone, which, when the bone is not covered with a great thickness of soft parts, is frequently obvious; thirdly, a change in the natural shape of the limb. Thus, an angular deformity may be produced, the limb seeming to be bent, and the axis of one fragment not corresponding to that of the other. Fourthly, a circumstance, which it is exceedingly valuable to recollect, namely, a shortening and rotation of the limb inwards or outwards, from which position it may be more easily moved than in the case of a dislocation; the limb in the latter kind of accident being always more fixed.

But, gentlemen, of all the symptoms and signs of a fracture, none is of greater importance, or affords a better proof of the nature of the injury, than the *crepitus*, or grating noise or sensation occasioned when one end of the broken bone is moved upon the other. It is true, that, in some cases, where the quality of the synovia is altered by disease, a grating may be felt when a joint is moved; but, generally, there is no risk of such a case being mistaken for a fracture. You should also know, that the absence of crepitus is no proof that a fracture may not exist; for, when a fracture has continued some days, the ends of the bone become smooth, and there will consequently be no crepitus or grating. The two ends of a broken bone may also be so much displaced as not to be in contact, and then, of course, no crepitus can happen. On other occasions, a portion of the soft parts may be interposed between the fragments, as for instance, a portion of muscle: and here, likewise, no crepitus will be felt on moving the part; but whenever the grating noise or sensation can be distinguished, you will have one

of the surest signs which can be specified of the existence of a fracture. You may usually perceive such grating on pressing upon, or trying to bend, the bone itself, or on bending, extending, or rotating, the nearest joint. You may discern it when the two ends of the bone rub against one another; or when you move the nearest joint. One symptom of a fracture is the loss of the use of the limb or part; this is, no doubt, a common effect of most fractures, the functions of the limb or part being more or less impeded; but you cannot draw any positive conclusion from this circumstance, because, as I have stated, it is one that accompanies other injuries and diseases, and does not invariably attend a fracture. When the portion of the limb in which the fracture takes place has only one bone on which its inflexibility and firmness depend, then the loss of its use will immediately result from its being broken. Thus, when the humerus or femur is broken, the patient immediately loses the power of using the limb; but if only one bone happens to be broken in a part of a limb in which there are two bones, the patient may then retain a certain use of the member. For instance, if the ulna alone be broken, considerable power of using the hand and fore-arm will remain; but if both the radius and ulna be broken, then the circumstances will be different, and the functions of the part will be more or less completely interrupted. Sometimes even when there is only one bone in a limb, and that is broken, a degree of power of employing the limb will be retained, that is to say, the use of it will not be so entirely destroyed as to render the nature of the case at once manifest. Thus, in a fracture of the neck of the thigh bone, if one fragment be wedged and entangled in the other, there will be no separation of them and retraction of the limb; and some patients in this condition have actually been able to walk some distance after the accident. This circumstance might cause the real nature of the injury to remain unsuspected, but it is very rare. I think, gentlemen, you will find some examples of it recorded in the Dublin Hospital Reports. When the injured part of a limb contains two long bones, and only one of them is broken, the other supports the fractured one, and generally prevents retraction, or much displacement of the lower fragment; in fact, the perfect bone acts as a splint in keeping the broken bone steady, and hindering deformity; and, under these circumstances, great attention may be requisite to detect the nature of the accident.

With regard to *swelling*, which I have told you is one of the symptoms of a fracture, it may be produced either by extravasated blood, by the increased fulness of particular muscles in consequence of the shortening of the limb, and the approximation of their origins and insertions to one another; or by the prominence or projection of the broken bone itself. By any, or all, of these causes, you may have an *immediate* swelling produced. The muscular swelling is exemplified in fractures of the thigh-bone, in which the middle portions of the triceps, the rectus, and the other extensors of the leg, give a preternatural convexity and fulness to the forepart of the thigh. A similar effect may be observed in the arm, when the humerus is fractured above its middle: then it is the coraco-brachialis which chiefly produces the muscular prominence. Besides the immediate swelling, to which so many causes may contribute, a still greater degree of tumefaction follows at a later period, and is the result of inflammation. This kind of swelling of course requires some time for its production; and hence, when a bone has been some hours unset, the swelling, from all the various circumstances which I have mentioned, may be very considerable, and such as sometimes to render the true condition of the bone obscure. When, therefore, a limb is suspected to be broken, it should always be carefully examined in the first instance, because then the examination may be made with less pain to the patient, and the nature of the injury can be made out with less difficulty than at a later period, when the inflammation and swelling have attained a considerable degree.

Gentlemen, the symptoms of fractures vary according to the particular bone, or to the particular part of a bone which is fractured, as you find illustrated in fractures of the skull, patella, or of certain processes of bones. The symptoms and effects vary likewise, according to the individual, and to the circumstances by which the fracture is occasioned. In compound fractures, the nature of the accident is generally obvious enough; for the broken ends of the bone frequently protrude through the skin. The displacement attending fractures is a subject to which you cannot pay too much attention. You should certainly have precise ideas about the particular kinds of displacement to which particular fractures and kinds of fractures are liable; because the displacement is necessarily accompanied by deformity, or deviation of the part from its natural shape; and the grand object in the treatment, the main thing at which you will have to aim, is unquestionably the prevention of such deformity by every possible means. You must therefore study and inquire into the causes of the displacement of the ends of a broken bone, and of the several varieties of it, which may occur in different cases. In fact, gentlemen, without this knowledge you will not be qualified to practise this part of surgery with reputation to yourselves and advantage to the public. First, then, I may observe, that a fracture may be without any displacement at all, as when the tibia is broken transversely a little way below the knee joint, the bone is there so thick, that the fracture will scarcely admit of any displacement. Also, when the upper and thick part of the ulna is broken, and the radius is

perfect, there is usually no material degree of displacement. The same fact is often exemplified, when the upper portion of the fibula is fractured, while the tibia continues entire. The displacement may either be *immediate* or *secondary*. When immediate, it is produced by the same violence as produced the fracture: thus, the wheel of a heavy carriage may pass over a person's leg and break it, and at once produce a displacement of the broken ends of the bone. A musket ball may have the same effect. Here the displacement is *immediate*. *Secondary displacement* may arise from two or three causes, the principal of which is the action of the muscle; but the weight of the limb will also be concerned in its production, if the injured part be not properly supported, or carefully carried. There are several kinds of displacement, in regard to the direction in which it may take place; first, it may happen *in the direction of the diameter of the bone*, as seen in a transverse fracture. In such a case, the two ends of the fracture may be either partially in contact, or not at all: in the latter case, the displacement in the direction of the diameter of the bone must obviously be very considerable. In some cases, the displacement is *longitudinal*, as you will most frequently notice in oblique fractures, where the surfaces of the broken bones slip or glide over each other, the lower portion being generally drawn upwards, and the limb consequently shortened. But, gentlemen, the *displacement* may take place *in relation to the axis of the bone*, the two fragments forming an angle, so that the axis of one portion of the bone does not correspond to the axis of the other fragment. This is termed the *angular displacement*, of which you may see an example in the tibia, now before us, where the axis of the portion above the fracture does not correspond to the rest of the bone below the injury. Here, it is plain, that, in the treatment, the foot had not been duly supported. A fourth description of displacemeut is the *rotatory*, in which the lower fragment of bone is twisted inwards or outwards. Thus, in fractures of the thigh-bone, the lower portion of it will generally be twisted or rotated outwards by the action of the muscles and the weight of the foot. A fifth description of displacement is not seen in the generality of fractures, but only in particular ones; and consists in the upper detached portion of a fractured bone being drawn away from the lower part of it by the muscles attached to it. You will find examples of this sort of displacement in fractures of the olecranon and patella, in which the muscles draw up the upper fragment away from the rest of the bone.

Gentlemen, with regard to the causes of these several forms of displacement, they are of various kinds; a bone is often broken by a fall; but sometimes by blows or kicks; the fall following the fracture and aggravating any displacement which the injury producing the fracture may already have caused; for, in some instances, the weight of the limb may displace the fracture in the direction of the axis of the bone, as no doubt happened in the case of the broken tibia, to which I have adverted. There the foot had not been properly supported; and the consequence was an inclination of the lower part of the tibia too much outwards. But, of all the causes of displacement, the action of the muscles is by far the most common, the most powerful, and the most difficult to counteract. Its usual effect is to draw the lower portion of the fractured bone upwards, or to make it, as the phrase is, *ride* over the upper fragment. The muscles principally concerned in causing the displacement are those whose insertions are below the fracture. Thus, when the humerus is fractured between its head and the insertion of the pectoralis major, this muscle, together with the latissimus dorsi and teres major, will draw the lower portion inwards. The fibres of the deltoid, it is true, may have some tendency to pull the upper fragment outwards; but it is the muscles specified, which have the greatest share in occasioning the displacement. The same principle lets us understand, why it is so troublesome to maintain the lower end of the fracture in its right place, when the thigh is broken; for the muscles of this part of the body are remarkably strong and numerous. Arising from the pelvis, which they make their fixed point, they are inserted into the femur below the fracture, and also into the patella and bones of the leg, which parts are their more moveable attachments, and consequently disposed to be drawn up by them more or less towards the pelvis. In fractures of the leg, the gastrocnemius, the soleus, and the peronei muscles, all tend to draw the lower portions of the fractured bones to the outer and posterior side of the upper fragments.

It will now be proper, gentlemen, to offer a few general remarks on the *prognosis* in fractures. Those broken bones, which have the greatest number of muscles attached to them, are usually the most difficult to repair without deformity; because, as you know, the muscles are the principal cause of the ends of the fracture being displaced; and when the muscles are numerous, or particularly strong, the surgeon will have more difficulty in counteracting their influence.

Fractures of the long cylindrical bones, near large joints, are more serious accidents than other fractures situated in the middle portion of such bones, at a distance from the joints; because then no risk of inflammation of the synovial membrane, of abscesses, or anchylosis is induced, one or more of which consequences are exceedingly apt to supervene, if the fracture extend into, or too near a joint. *Compound* are more dangerous than simple *fractures;* the inflammation is more violent, the constitutional symptoms more severe, and, if you cannot succeed in uniting the wound in

the skin by the first intention, large abscesses may ensue, and the case will sometimes take so bad a course as to render amputation necessary to save the patient's life. Indeed, when you do succeed in curing bad compound fractures, it is not until after long confinement in bed, repeated abscesses, or even sloughing, many exfoliations, and very severe and protracted hectic disturbance of the system. The preparation, which I now take up, is one in which the tibia and fibula were fractured very low down, and the result was an anchylosis of those bones to the tarsus, and of the bones of the tarsus to one another. As I have explained, you should remember that *fractures in the vicinity of a joint*, may be attended with serious consequences, from which a fracture, at a greater distance from the articulation, would be wholly exempt. However, I do not mean to say, that there will always be anchylosis when the fracture is close to a joint: in another preparation, which I now show you, the fracture extended into the knee-joint, yet union of the bone followed without anchylosis, but, from the appearances observable, there seems to have been considerable inflammation. A *comminuted fracture*, and also one in which the bone is broken, not exactly into a great number of fragments, but only in two or three places, is more serious than if it had only been broken at one part. A similar remark applies to the case in which there is a fracture in two different portions of the same limb, as, for instance, in the leg and thigh together: here it would be exceedingly difficult to effect a cure without deformity, far more difficult than if you had only one fracture in the leg or thigh to treat. Then, gentlemen, I mentioned the other evening that oblique fractures are, from their nature, not calculated to resist displacement, the lower fragment having a tendency to glide over the upper one; hence the chance of deformity is more serious, and greater care is necessary on the part of the surgeon. *Longitudinal fractures of the cylindrical bones* are generally severe cases, because they rarely occur, except from the effects of gun-shot wounds, and are liable to extend into joints. At one time, so few specimens of this sort of fracture had been preserved, that the reality of it was a matter of dispute; but it is now known by military surgeons, that they frequently occur, and I observe, that Cloquet, in one of his late works, gives an account of some fractures of this kind which occurred in individuals, who had been crushed and buried in the ruins of a building, which fell down upon them. *Complicated fractures*, or those accompanied with a wound of a considerable artery, a dislocation, previous disease of the bones, or an insane and unmanageable state of the patients (for you will sometimes meet with fractures in individuals in a state of mental derangement), or with various other perplexing circumstances, are rendered more difficult of cure by these complications, and are less likely to terminate well. In the museum of this institution, you may see a preparation, and this is it, exhibiting a fracture of both bones of the leg in two places, which accident was complicated with hæmorrhage; the treatment tried was pressure, which, I think, afforded little prospect of success in preventing hæmorrhage, either from the anterior or the posterior tibial artery. At all events, the result was mortification; indeed, injured in the degree in which the limb was, it was certainly in the worst possible condition for bearing pressure, which, besides being injurious to the soft parts, could have had little operation on either of the arteries specified, whichever it might be that was the source of the bleeding. Here, if taking up the femoral artery were unadvisable, and cold applications would not have answered, it might have been better to have amputated at once, according to the rule which I mentioned when speaking of gun-shot wounds, namely, that bad compound fractures, accompanied by the injury of a considerable artery, are cases for immediate amputation. In this case, not only was the limb not saved, but the patient lost his life. Fractures of the lower extremities are generally more serious than fractures in the upper ones, for they are more difficult to reduce, and keep reduced, and complete union requires a longer period of time for its accomplishment. Fractures in debilitated and aged persons do not get well so soon as in healthy and young people; in infants and children it is really surprising with what quickness and facility fractures are repaired, and this notwithstanding the impossibility of keeping such patients duly quiet and in the right position. Fractures of the neck of the thigh-bone, *entirely within the capsular ligaments* occur most frequently in old persons, as I have already noticed. Now, partly from the patient's age, partly from the difficulty of maintaining the surfaces of the fracture in co-aptation, and partly from the scanty supply of blood to the pelvic fragment of the femur (the only supply of which is through the medium of the vessels of the round ligament), it is exceedingly difficult to bring about bony union, so difficult, indeed, that it was at one period often supposed to be impossible to effect it. When fractures are accompanied by certain diseases, as syphilis, scrofula, scurvy, rickets, &c., the prognosis should always be guarded; you should apprise the friends of the patient, that the unfavourable condition of his health may have disadvantageous effects on the process, by which nature brings about the union of a broken bone. I have, however, attended many ricketty children for fractures, and generally found that their bones unite again with tolerable readiness. In such individuals, the bones are more easily broken it is true, but I have not met with any very great difficulty in bringing about the re-union of them.

CLINICAL LECTURES

DELIVERED BY

DR. WILLIAM STOKES,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832-33

LECTURE II.

Chronic Diseases—Disorganisations—Unfavourable Prognosis — Presumption of Empirics—Caution of the Faculty—Disease of the Heart and Lungs—Accuracy of Diagnosis confirmed by Autopsy—Diseases mistaken for Asthma—Inutility of Antispasmodics — Diagnosis and New Treatment of Empyema—Comments on Chest Diseases.

Gentlemen,—Since our last meeting, there have been two deaths in the hospital, both of chronic disease. The patients were both in the last stage of disease, where the condition of the viscera was totally altered, and medical treatment of little or no avail. You may take this with you as a rule in practical medicine, that when once the viscera become considerably altered from their physiological condition, very little can be done in the way of restoration to the normal state. Patients who have experienced extensive lesions of important organs, may last for a very considerable time, but their lives are always more or less miserable, and they remain obnoxious to a train of symptoms, which medicine may palliate but not remove. When a large portion of the brain is disorganised, or extensive lesion of the lung has taken place, how small is the good we can do! If the liver is totally altered by disease, or the texture of the stomach destroyed, how can we hope for success? We know not how to repair the damage produced by disease in the fabric of the human constitution; we cannot replace the altered viscera. This, however, is no opprobrium to medicine. Though we cannot restore what has been lost, we can alleviate symptoms to a great extent, we can mitigate the horrors of disease, and we can prolong life. This is the great point which distinguishes the scientific medical man from the empiric. The humane and well-informed practitioner, when he finds the viscera in such a state as to preclude all possibility of complete relief, will not make hazardous experiments, or hold out to the friends of his patient hopes of recovery never to be realised; while the rash pretender to medical knowledge submits his victim to experiments which accelerate the fatal termination of his malady. I remember some time ago being called on with an eminent surgeon to attend an old gentleman, who was labouring under extensive paralysis, passing his urine under him in the bed, and quite idiotic, with inflammation of the pleura, bruit de soufflet, dropsy, enlarged liver, extensive piles, and every symptom of chronic disease of the digestive system. We were called in to know if we would give our sanction to a plan that was about being adopted of closing with this host of diseases, and attacking them all together. The head was to be treated by blisters, the chest by tartar emetic, the heart by digitalis, the liver by mercury, the piles were to be excised, and the paralysis removed by electricity. We demurred, of course, to this sweeping plan; and recommended his friends to let the unfortunate gentleman close his days in peace, as he eventually did a short time after.

You recollect that one of the fatal cases to which I am about to allude, exhibited the characteristic signs of disease of the heart and lungs; and that I formed my diagnosis as to the particular lesions before the patient's death. From the phenomena observed on dissection, it appears that my diagnosis was correct, and I am glad of this, as it affords another proof of the certainty of a diagnosis founded on auscultation and a careful examination of symptoms. The man had severe chronic cough, and had been asthmatic for a long time; his breathing was painful, and extremely laboured, and the muscles of the neck and chest appeared to be in a state of hypertrophy, the result of excessive action. When we examined his chest, we found that though he was a small man, it was very capacious, projecting at a certain point, the sternum convex, and, in fact, a great disproportion in the size of the cavity, compared with the rest of his body. On making percussion, we found that all parts of it sounded morbidly clear, like a drum, and that those portions which are naturally dull from the presence or proximity of the heart and liver were quite clear. When we applied the stethoscope, we observed that although the patient was at the time making violent efforts at inspiration, we could scarcely distinguish any respiratory murmur over the whole of the lung, but that there were a great variety of bronchial râles. So much for the state of the lung, in which morbid clearness of sound on percussion, a marked state of the respiratory murmur, and unusual dilatation of the thorax were remarkable. The next thing we directed our attention to was the heart. The beat of the radial artery was not found to be at all strong, but over the præcordial region the pulsations were violent. There was a manifest want of correspondence between the action of the heart and the pulse at the wrist, and this is an occurrence which takes place when there is hypertrophy of the right side of the heart. In such instances you have violent action of the heart with a feeble pulse, so that when you place your finger on the radial artery and apply the other hand to the heart, you are astonished at the difference between them. For this reason we made the diagnosis to be hypertrophy of the right ventricle, but not alone on this account, for we took into consideration the general history of the disease, and that such cases

generally present a degree of hypertrophy before death, from the long continuance of the pulmonary affection, which obstructs the circulation of the right side, and throws an additional labour on the corresponding ventricle. You remember how this man's chest was swelled out, giving the idea of pressure from within, and such was really the case, for when we opened the chest, the lungs burst up from their cavity, and could not be reduced. During life they had been pressing against the walls of the thorax, and consequently when the chest was opened they sprung up and protruded. Here is the lung, and it affords a remarkable example of emphysema. You perceive, in some places, as here, the air vesicles are enormously enlarged. If you were to fill the lung completely with air, and tie a ligature round the trachea, you would find a great many cavities of considerable size, formed by the dilatation of the air cells and their rupture. When you look at the lung, and feel it between your fingers, it conveys to the touch the sensation as if you were handling a bag of air, and on closer inspection you find this to be the case. This state of the lung will explain the projection of this organ when the chest was opened, and the feebleness of respiration during life. Cæteris paribus, the sound produced by the air passing through the lungs is in proportion to the dilatation of the chest, and when a healthy person takes a full inspiration, the respiratory murmur becomes more intense; but if an emphysematous condition of the lungs takes place, and the chest is dilated nearly to its utmost extent, it is plain that it cannot expand any farther, or experience those modifications on which the respiratory murmur depends, and hence the feebleness of respiration. The next thing we have to notice is the variety of bronchial râles which accompanied this affection. You will find on examining the bronchial mucous membrane, that in several places it exhibits marks of inflammation, sufficient to account for this phenomenon. So far, with regard to the pathological condition of the lungs, let us now turn to the heart. The right ventricle, you perceive, is enlarged, thick, and in a state of hypertrophy, bearing a strong resemblance to the left, so far as thickness is concerned. Now, I shall slit it up, commencing at the apex of the heart, and we shall examine the relative thickness of the walls of both ventricles. You recollect our diagnosis was hypertrophy of the right ventricle. Now here are the two ventricles, and you observe there is very little difference between them. Here also are the carnæ columnæ of the right ventricle in a state of hypertrophy, and the two ventricles nearly symmetrical, so far as regards their thickness, so that you see our diagnosis was correct. In the management of these cases, all we can generally do is to palliate urgent symptoms, and remove attacks of acute bronchitis, which frequently supervene during the course of the disease. Many persons are in the habit of treating these attacks with antispasmodics, looking on them as asthmatic paroxysms, and omitting the antiphlogistic plan altogether. Yet you will frequently find, that these attacks are totally independent of spasm, and possess a truly acute character, requiring leeching and counter-irritation. I do not deny that antispasmodics are good, but, in the early or acute stage, the best thing you can do is to attack them by the means before alluded to. I have known many persons lost for want of appropriate treatment at first; and when we consider the great distress which patients, in this state, undergo, we should be prepared to act on such occasions with promptitude and decision.

I return now to the subject of empyema, on which I purpose to make some additional observations. You recollect, at our last lecture, I was engaged in laying down rules to guide you in making the diagnosis of the disease in the right side, and drew your attention to the signs which distinguish it from enlarged liver: these were the smooth appearance of the intercostal spaces, the shape of the tumour, the non-occurrence of a clear sound on percussion at the lower and posterior part of the lung on taking a full inspiration, and the peculiar displacement of the heart. With respect to the light thrown on this subject by the formation of a sulcus, before alluded to, I have since then repeated the experiment of injecting the right pleura, and I find that it is a constant occurrence. I have observed, also, that the liver is pushed downwards and to the left side. You can understand all this when you consider, that by filling the right pleural sac, the corresponding portion of the diaphragm is pushed down, and becomes quite convex, causing the liver to revolve, as it were, on its axis, and protruding it towards the left side. This was witnessed by the class, as well as the appearance of the sulcus, and it was acknowledged, that in some cases it would be an important diagnostic. So much with respect to the distinction between empyema of the right side and hepatic enlargement.

I shall now draw your attention to three circumstances which are of great importance in making the diagnosis of effusion into the pleura in general, and capable of being applied either to the left or right side. One of the cases which is most commonly confounded with empyema, is hepatisation of the lung; for you know that this affection will produce dulness of sound on percussion, absence of the respiratory murmur, and that it comes on after an acute attack, with fever, so that the symptoms give you very little assistance in forming a diagnosis. Again; there may be very little or even no dilatation of the side, and here we lose the advantage of a very important sign. Now, if you looked to symptoms alone, and, misled by the resemblance between two very different diseases, were to

operate in a case of solidified lung, as some eminent men have done, it would be a very unfortunate proceeding. Here you can call to your assistance a very important sign, first noticed to me by Mr. Hudson. Many of you must have observed, that when walking arm in arm with a friend, particularly if your hand happened to rest against his chest, there was a peculiar vibration felt in it while he was speaking. This phenomena is very constant and extremely remarkable in persons who have naturally a full deep voice; it is produced by the vibrations of the voice in the bronchial tubes and when heard by the stethoscope is called *bronchophony*, or the resonance of the voice. It is quite plain that, in order that this bronchophony which accompanies the vibration of the chest should be heard distinctly, the lung should be in close apposition with the chest, and the pleura in its natural condition. Now, Mr. Hudson's diagnosis is this, and it is not necessary that you should be stethoscopists to understand it. When you place your hand over the chest of a person who has hepatisation of the lung, and make him speak, you can feel the vibration distinctly; but if it be a case of empyema or pleuritic effusion, you can feel no vibration whatever. Here then is a very simple diagnostic between hepatised lung and empyema, the rationale of which you can easily understand and readily avail yourselves of. I look on it as extremely valuable, from its extreme simplicity; and it gives me pleasure to think, that it was here it was first known. The next thing that serves to distinguish empyema from solidified lung is the state of the sternum, so far as dulness or clearness of sound on percussion; and to this I would solicit your attention, as it is a point not laid down in books. When the lung becomes solidified by hepatisation or tubercular development, there is no manifest enlargement, and the affected organ remains stationary, so far as size is concerned; consequently, when you percuss the sternum, you find the dulness terminating exactly along the middle line of the sternum: the sound on one side, where the lung is healthy, is found to be perfectly clear, but on the other side, where hepatisation exists, there is complete dulness. Now, observe what occurs in empyema;—the mediastinum is pushed towards the sound side by the effused fluid, the result of which is that the whole of the sternum sounds dull on percussion, the space behind it being occupied by fluid in consequence of the displacement of the mediastinum. Let us suppose this dotted line to represent the mediastinum, and the spaces on each side the right and left sides of the chest; when the dulness proceeds from hepatisation of the lung, suppose of this side, it will be found only on this side, and will not pass the middle line of the sternum; but when it is a case of empyema, and happens to occupy, for instance, the right side, the result is, that the ribs are pushed out, the diaphragm forced downwards, and the mediastinum to one side. Here, then, as far towards the left as perhaps this line, will be the mediastinum, the fluid will pass completely beyond it, and you can readily conceive how the whole of the sternum will be dull on percussion. The centre of this bone is not only dull, but even the parts beyond it as far as the cartilages of the ribs. This sign you will find extremely well marked in the patient in the Chronic Ward. I would have you examine him carefully and satisfy yourselves of the correctness of this description. I look upon it as a most valuable sign in forming a diagnosis between empyema and hepatised lung, as well as between empyema of the right side and enlargement of the liver. I cannot conceive any enlargement of the liver proceeding to such an extent, or in such a direction, as would cause a displacement of the mediastinum to such an extent, and hence I consider this to be an important diagnostic sign of empyema.

The next observation I have to make is, that when the fluid of an empyema or pleuritic effusion has been absorbed, you can, by merely applying your hand over the side, ascertain this occurrence from the sensation communicated by the friction of the opposed surfaces of the pleura on each other. You will remember, that in ninety-nine cases out of a hundred empyema is the result of chronic pleuritis, and that a large quantity of lymph is poured out over the inflamed surfaces. When the fluid has been removed by absorption, these two surfaces come together, and both being rough, their friction produces a peculiar *frottement*, which has been described by Laennec, and can be heard by applying the stethoscope over the affected part. But I believe it has not been hitherto noticed that this *frottement*, or sound of friction, can be also felt. We have lately made this discovery in this hospital, and verified it in a great number of cases, and I deem it a circumstance of no ordinary importance, when it is considered that to learn and practise it does not necessarily require any acquaintance with the stethoscope. There was, some time ago, a patient in this institution, labouring under abscess of the sternum and empyema of the right side. This man recovered, and, about the time of his convalescence we could distinctly feel the rubbing of the opposed surfaces of the pleura on each other, communicating to the touch a sensation resembling that grating feel given by an inflamed synovial membrane. In a healthy condition of the serous surfaces you cannot hear or feel this *frottement*, but when lymph has been effused over them it is extremely evident to both senses; and I have frequently noticed it in cases of pericarditis. There is another sound, the *respiration entrecoupée*, considered to be an indication of tubercular inflammation, which (perhaps) is only a modification of this, and

arises from the chronic pleuritis, which frequently accompanies phthisis.

The last observation I shall make on this subject is, that empyema may exist with a contracted state of the affected side from the commencement to the termination of the disease. It is well known, that empyema will produce a contraction of the chest during the process of cure; but it is not generally known that there may be a great accumulation of fluid in the chest, with a contracted state of the side. Of this I have known two well marked instances, both caused by wounds of the chest. One was the case of a boy, who happened to be on the strand one day when some persons were firing at a target. He ran in to pick up some of the balls which had been fired, and received a bullet in the shoulder, which passed through the lungs. He was brought here, labouring under dreadful pain of the side, and continued in this state for several days, keeping himself bent together in this position on one side. This side was singularly contracted, the other completely enlarged and projecting. At the end of some time, from the urgent symptoms, it was suspected that he was getting empyema. Consultations, or rather a series of consultations, were held respecting his case, and the medical officers were very much embarrassed. Here were the facts of the case. A ball had entered the chest above the left scapula; there was great pain; a contracted state of the side; absence of the respiratory murmur and of bronchial respiration. In consequence of the contraction of the side, there was a great deal of difficulty attached to the diagnosis of the case, and two of the most accomplished stethoscopists in Dublin doubted the existence of empyema. I was, however, induced to think that pleuritic effusion had taken place, from one symptom alone; the heart pulsated at the right side of the sternum. My diagnosis proved ultimately to be correct. The boy was operated on, but owing to the state of the side, the operator was misled, and made his incision too low down. In fact, the knife entered below the diaphragm. The patient sunk on the following day; and, on dissection, a vast collection of matter was found in the left pleura, which was extensively covered with coagulable lymph. The ball had divided the lung from above, downwards and forwards, and its traject was greatly dilated by the effusion, and lined also with lymph. I have the preparation in Park-street, and will show it to the class on the next opportunity.

This terminates what I had to offer on the diagnosis of empyema; I will now make a few observations as to the treatment. You perceive I have been treating the patient above stairs by means calculated to relieve the chronic inflammation of the pleura. He has been leeched and blistered, he took some tartar emetic, and at present he is on calomel and opium. The old writers adopted a very different plan from this, they endeavoured to evacuate the fluid by diuretics. Without denying the utility of diuretics, I have to observe that the true mode of treating a case of empyema is to follow the plan already laid down, it is that which we find by experience to be the most valuable, and you have witnessed its favourable results in many cases in this hospital. What we generally do is this; if we meet a case, where the symptoms are of recent date, and particularly if any fever is present, we commence with small bleedings from the arm. We do not do this on the same principle, or to the same extent, as in a recent attack of pleuritis, but if we find a person, who has not been bled in the commencement, we generally do it. What we rely on chiefly is repeated leeching and blistering, alternate local bleedings, and counter-irritation, and keeping the patients on a mild diet. Under this treatment we have had the happiness of seeing very severe cases recover. There was a very remarkable case of a woman, who was in this hospital, in whom the heart was so much displaced by empyema, that it pulsated under the right mamma, yet this woman recovered; and we have seen her lately enjoying perfect health. This mode of treatment is one which, as I have before observed, demands the greatest courage and resignation on the part of the patient, and the most steady perseverance on the part of the physician. The cure is slow and painful; there is frequently, during its progress, a train of menacing symptoms, bearing some resemblance to phthisis, and manifesting themselves in pains, sweats, and hectic. These symptoms have been noticed by Laennec, in his Treatise on Chronic Pleuritis, and his expression of doubtful convalescence is well known. A patient, under treatment for empyema, will frequently complain of pains in the chest, short dry cough, and distressing night-sweats, giving rise to suspicions of consumption, and tending very much to embarrass the physician. It will be necessary, while speaking on the treatment of empyema, to say a few words respecting the operation. It is a fact well known to the profession, and admitted by the best informed surgeons, that this operation is a very serious one, not only with regard to its performance but also with respect to its result. If you look into those works in which cases of empyema are recorded, and where paracentesis has been performed, you will find numerous instances of its failure. There are several reasons why this mode of treatment should so frequently be attended by an unfavourable result, and to these I shall beg leave to draw your attention.

The first and most important of these reasons is, that surgeons have performed the operation where there was something more than fluid within the cavity of the pleura. In perusing the accounts of cases where paracentesis has been performed, you will often

find that the surgeon states that he has heard the sound of the fluid within the chest; and if you look to a very recent instance, where Mr. Guthrie operated, you will see that he has noticed this occurrence. Now, a single moment's reflection will inform you that in such cases there is pneumothorax in addition to the pleuritic effusion. Where you can hear the sound of fluid in the chest, I believe that there must be a fistula communicating on one side with the cavity of the pleura, and on the other, with a cavity in the substance of the lung, which is almost always tubercular. You can therefore easily understand why the operation should be unsuccessful, when the sound of fluid can be heard within the thorax; for though the patient should get rid of the pleuritic effusion, still he would ultimately die of phthisis. In the second place, an operation can do no good where a fistula exists, for in this case the lung can seldom indeed expand so as to fill the cavity of the thorax. All that the surgeon can do by an operation is to substitute air for fluid. You have in this plate an admirable illustration of this form of the disease. You also recollect a case which was some time since in this hospital, where I gave it as my opinion that there was a fistula present, and that paracentesis would do no good, and my diagnosis turned out to be true. Here you see is a fistulous opening,—here is another; and it is plain that under such circumstances the lung could never be sufficiently dilated to fill the chest, and there could be no advantage derived from an operation. But are we never to operate in such cases?—Yes: when the quantity of fluid is so enormous and the distress of the chest so very great as to threaten speedy destruction, we operate to give the patient relief, and smooth down the approach of death. The operation is also frequently unsuccessful in cases of simple chronic empyema, when there is great effusion of lymph, and the lung is covered and bound down by a strong false membrane, so that when the fluid is drawn off the lung cannot expand, the air enters the chest, and we have pneumothorax by external fistula. But the mere occurrence of false membranes does not explain the whole matter; there is still something more. We can throw some light on this subject by reflecting on the peculiar condition of the lung in empyema. We find the lung under such circumstances reduced by compression to an extremely small size; in some cases the reduction of bulk is so great that you can scarcely find the organ; and when you examine, you perceive that it exhibits a peculiar homogenous structure, its smaller bronchial tubes have completely disappeared, its tissue is entirely altered,—in a word, it is atrophied and anæmatous. This is only an example of the general physiological law, that when the functions of an organ can no longer be carried on it is removed by nature, as we see the optic nerve is atrophied and finally almost disappears where the sight has been destroyed, and many other parts of the system which we frequently discover in a state of total decay, because their functional powers have ceased to exist. In fact, the lung in many cases of empyema is in a state of perfect atrophy; and you can easily conceive how unfit it must be for carrying on the process of respiration, even though it were not confined by bands of organised lymph. Such a state of lung might be cited in proof of the opinion of Serres, that the result of many diseases is to produce that condition of the organs found in the fœtus; for most decidedly as far as the thing goes this state of lung resembles the fœtal state in its imperfect development, incapacity for carrying on respiration and want of blood. Hence it is that the operation is frequently unsuccessful, even in cases of simple empyema. One of the consequences of operation also is, that on some occasions the air enters the pleura, produces gangrenous inflammation in it, and kills the patient. So that you see the result of paracentesis is often unfavourable. Now, on the other hand, is there any thing in favour of the operation?—Yes: you will sometimes find it necessary to let out the fluid, or else it will make its own way out, as in the case of a man above stairs, and this is very bad. A still more unfortunate occurrence is the formation of an internal fistula, and the matter getting into the lungs. This might be prevented by an operation. The last thing in favour of an operation not before pointed out is, that when nature performs the cure of an empyema, the patient runs the hazard of dying by phthisis, apparently produced by the absorption of matter; and you must hold this in memory, that although your patient may recover from empyema, you are not to expect a complete restoration to health; for I have known many cases, and, in particular, one of a clergyman, who recovered from the pleuritic effusion with a contracted chest, and in some time afterwards got phthisical cough, with a frequent pulse. I was called in to see him; and though I could not decidedly state that he had phthisis, still I had strong suspicions of its existence. When we come to the subject of phthisis I will show you how difficult its diagnosis sometimes proves to be; and that it requires very great caution in giving a decided opinion. This gentleman has since died of acute disease of the brain; and on examining his chest after death the lungs were found studded with tubercles. From a review of the foregoing considerations our conclusions would be in favour of the medical treatment of empyema. If, however, there should be an enormous increase in the quantity of effused fluid, or any of the other exigencies before noticed should arise, the question of surgical treatment comes again under our consideration.

CLINICAL LECTURES

DELIVERED BY

G. J. GUTHRIE, ESQ., F.R.S., &c.

At the Westminster Hospital.

LECTURE III.

ON TWO NEW MUSCLES OF THE MEMBRANOUS PORTION OF THE URETHRA.

Mr. Wilson, in the first volume of the Transactions of the Medical and Chirurgical Society of London, gave a particular description of two muscles situated about this part, which attracted the attention of every anatomist in Europe. They have been acknowledged by every one, although none have described them in so precise and apparently accurate a manner as he has done. It is, however, a very curious circumstance, that Mr. Wilson only described half a muscle, and that the error should not have been detected until the present time.

Mr. Wilson, as I have stated, described his muscles with great apparent accuracy, and declared it was exceedingly easy to find them. To do this, he gave directions, pointing out the close connexion between them and the levator ani of each side, which induced many anatomists to think they were a part of these muscles, and that the distinguishing them separately was, after all, an act of unnecessary minuteness. For the present I shall content myself with remarking, that all this arose from the error Mr. Wilson unaccountably fell into, of examining these parts from a side view only, and made from the left. If he had dissected from behind forwards, I think he must have discovered the whole of the muscle of which he has described only a part. Desirous of having preparations to show at my lectures, which should enable me to demonstrate all these parts in the clearest manner, I set Mr. Taylor to work last year to prepare them. He could not, however, succeed to my satisfaction; the muscle was never perfect, according to Mr. Wilson's description of it. On one occasion, dissecting from behind forwards, and not by a side view, he made out an attachment on the left side, formed by some fibres running from the ramus of the pubis to the membranous part of the urethra; this I took to be an accidental occurrence at the time; but keeping it in recollection, on making some more dissections during this winter, and there are twenty before you, I desired that particular attention might be paid to this point, and the results of our labours, that is, of Mr Taylor, Mr. Bedford, and mine, enable me to show you these muscles in a complete state. The two preparations I place before you now are the most perfect. This one shows the membranous part of the urethra surrounded by a perfectly defined muscle. On the upper part there is a central median line of tendon, which runs backwards to be inserted into the fascia covering the upper surface of the prostate; and again forwards on the urethra through the triangular ligament, to be inserted in front of it near the union of the corpora cavernosa. On the under part a similar tendinous line is to be observed, which is attached backwards to the fascia underneath the apex of the prostate, and forwards to the central tendinous point in the perinæum. Each muscle on its upper surface is covered by fascia descending from the pubes, which adheres to it, and this I take to be what Mr. Wilson described as the origin of his muscle, and from which he supposed the fibres descended to surround the urethra, which they really do not. From the median tendinous line in the upper part of the urethra the fibres pass outwards on each side, converging towards the centre, where they form a leg, as I term it, of muscular fibres. On the under surface the same thing takes place; and a leg on each side being thus formed from the superior and inferior fibres running from each half of the urethra, they pass outwardly, that is, transversely, across the perinæum, to be inserted into the descending ramus of the pubis, about its junction with the ascending ramus of the ischium on each side. These attachments are cut off in this preparation, but when I pull on each of these legs you see that they surround the urethra like a sling.

In the preparation I now present to you, nearly all the parts are in situ. You see the muscles and their origins, one on each side, which are very peculiar. They are inclosed between the two layers of fascia, forming what is commonly called the deep perineal fascia. The anterior layer is turned down as is the triangular ligament from the pubes; and you see the muscle on each side, with its origin, and lying between the anterior and posterior layers of the fascia. The pudic artery on the right side runs in front of it, and you see here the division of that vessel into the two arteries of the corpus cavernosum and of the dorsum of the penis. Cowper's gland on each side lies under or posterior to the muscle, and seems to be enveloped by it. The inner layer of fascia passing on the inside of the muscle reaches the inner edge of the levator ani, round which it turns to invest the urethra and prostate; so that this fascia separates these two muscles, the fibres of which also run in different directions. This is distinctly shown, and it is manifest that the muscle I have described is inclosed between the layers of fascia, which is, I presume, the reason why it has escaped the observation of the very many minute anatomists who have investigated these parts.

The preparation I now show you is an internal view of the pubes, with its descending rami and the ascending rami of the ischium. The deep fascia of the perinæum is preserved: the urethra is seen passing through the triangular ligament, surrounded before it passes by the muscles in question; the internal

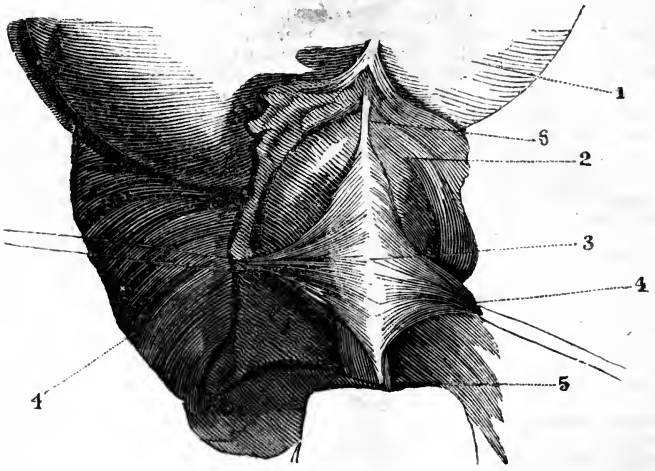
layer of fascia is turned down, and the two legs of the muscles are seen passing outwardly or transversely to their origin.

In these two recent dissections the same muscle or muscles are shown in the female, proving, therefore, by their existence that they are not sexual muscles, but especially connected with the transmission of urine. Taken as a single muscle, it has then two origins and five insertions, or six, if the superior attachment of Mr. Wilson be considered double. When it acts, which it must do, from its origins from the rami of the pubes, it can compress the urethra so as to close it, I conceive, completely after the manner of a sphincter; whilst, from the attachments of the muscles, from their origin, and being inclosed between the layers of fascia, they must also draw it towards the pubes. This muscle has a singular resemblance to the accelerator urinæ, situated outside the fascia, and is capable of acting I am led to conclude, with great energy. The time I can devote to you has expired; but Mr. Taylor will show you the preparations, and give you any further information you can desire on the subject. The preparations are preserved in the Museum at the Ophthalmic Hospital.

EXPLANATION OF THE WOOD CUTS.

FIG. I.

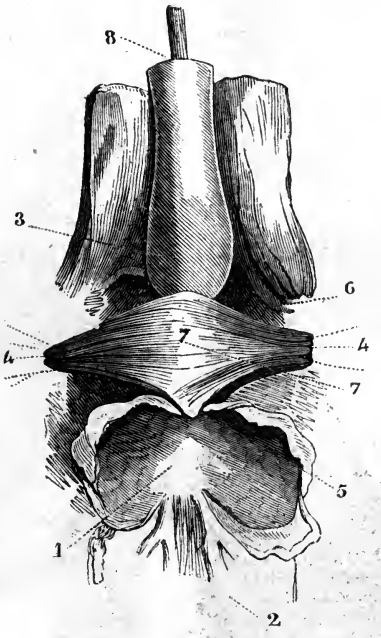
View of the superior surface of the muscles, the bladder and urethra being detached from the pelvis.



1. A portion of the bladder.
2. Prostate, the posterior layer of the deep perineal fascia being reflected off it.
3. The fibres of the muscles united crossing over the membranous portion of the urethra.
4 4. The legs of the muscles, separated from their attachment to the rami of the pubis and ischium.
5. Attachment of the muscles anteriorly to the corpora cavernosa.
6. Their posterior attachment to the fascia covering the prostate.

FIG. II.

View of the under surface of the muscles.



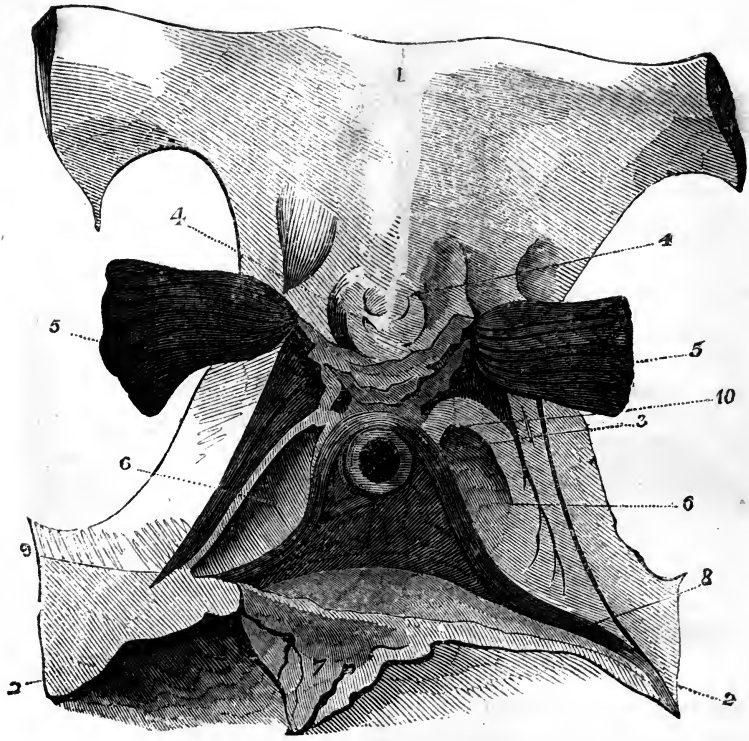
1. Inferior surface of the prostate.
2. Portions of the vesiculæ seminales.
3. The bulb of the urethra.

4 4. The legs of the muscles.

5. Posterior attachment of the muscles.
6. Their anterior attachment.
7. The fibres from the two legs of the muscles meeting on the under surface of the membranous portion of the urethra.
8. Urethra with bougie in it.

FIG. III.

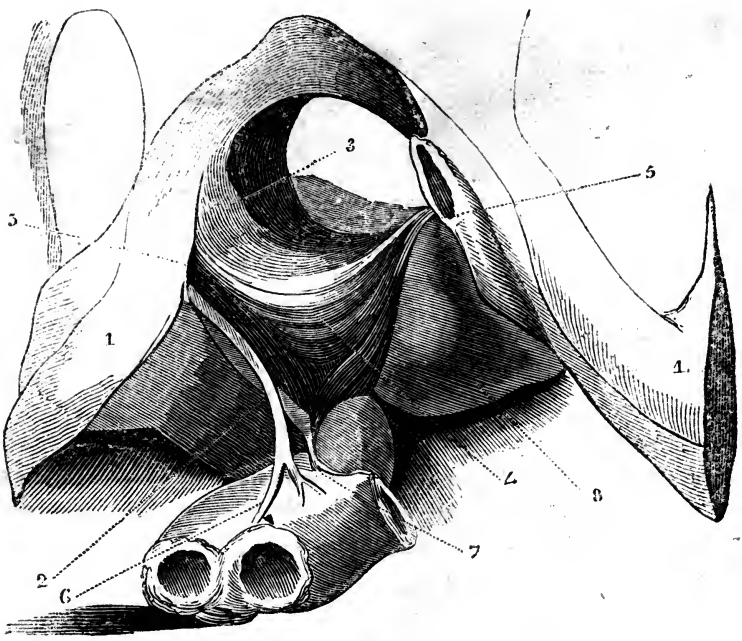
View of the muscles from within the pelvis, the bladder being removed, and the urethra cut across anterior to the prostate.



1. Inner surface of the symphysis pubis.
2 2. Rami of the ischia.
3. Urethra.
4 4. Tendons of the bladder.
5 5. Anterior fibres of the levator ani.
6 6. Anterior layer of the deep perineal fascia.
7. The posterior layer turned down to show these muscles.
8. Origin of one leg of the muscle exposed.
9. Posterior layer of the deep fascia, concealing the origin of the other leg.
10. The fibres of the muscle running over the membranous portion of the urethra, and closely connected with the fascia at that part.

FIG. IV.

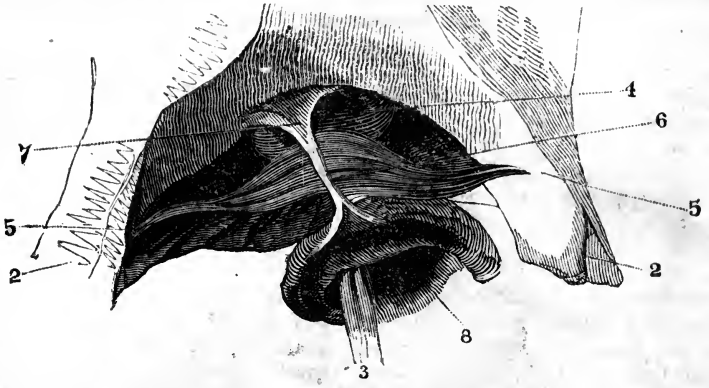
View of the muscles from the front, the urethra and anterior layer of the deep fascia being turned down



1 1. Rami of the ischia and pubes.
2. Anterior layer of the deep perineal fascia.
3. The posterior layer.
4. The muscles enclosing the membranous portion of the urethra.
5 5. Origins of the muscles.
6. Internal pudic artery dividing into its terminating branches.
7. The bulb of the urethra.
8. The prostate, both layers of the deep fascia on this side being removed.

FIG. V.

Front view of the muscles in the female.



2 2. Rami of the pubes.

3. Bougie passed into the urethra.

4. The prostate.

5 5. Origins of the muscles.

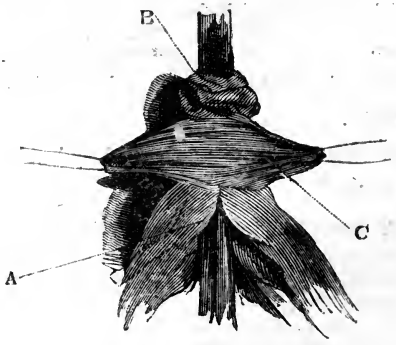
6. The fibres of the muscles passing over the urethra, attached posteriorly to the fascia, covering the prostate, and anteriorly to the point of junction of the corpora cavernosa.

7. Vena dorsalis clitoridis.

8. Corpus cavernosum of one side.

FIG. VI.

View of the under surface of the muscles in the female.



A. The neck of the bladder cut open, and a bougie passed into the urethra.

B. Orifice of the urethra.

C. The fibres from the two legs of the muscles meeting on the under surface of the urethra.

MEDICAL SIMONIANS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—Had Dr. Simon (of whom I know nothing more than what you and he have told the medical community) the slightest notion—which it is not possible he could have—of what I design to advance in my reserved articles on the important subject of *Medical Reform*, he would have reserved his communication.

I am somewhat inclined to pick a quarrel with this Frenchman—not because he is "*but* a Frenchman,"—but because he has anticipated me in a suggestion which I design to throw out, *pro bono medicorum juniorum*, in due time and place. The starter of the idea, as to furnishing small contributions to Dr. Ryan's "Libel Fund," probably anticipated us both, and it is no small disgrace to the profession that it has hitherto met with so slender a degree of success. I happen to have discovered who he is, and I have had some conversation with him on the subject, in the course of which he complained that the Editors of the Journal had thrown cold water on a most important part of his proposition, by which, had it been promulgated, money would have absolutely *rained* upon the committee. He also remarked (but he is rather a crank and unmanageable character) that the same gentlemen (meaning those whom I am addressing) did not sufficiently appreciate the importance of his communications, and seldom took any notice of them, an observation to which I had no reply to make beyond this—"Every one knows his own business best."

But, with regard to this *unfortunate* Frenchman, who is endeavouring to push his way among us, I wish to say a word. It is not over creditable to my countrymen and professional brethren to look upon a stranger with a jealous eye. If M. Simon has committed a real error, it strikes me that he has done so either from sinister counsel or through excess of *frankness* (a word, by the way, to which his native language cannot furnish a parallel). We ought to make allowance for difference of habits, education, aim, and objects, on the part of those who do not chime with *our* usages, or give way to *our* prejudices. M. Simon is at once right and wrong: he is right in his intentions no doubt, but he is wrong in his mode of carrying these into effect. Such a mode as he discloses would do in France, but, *for the present*, will not succeed in England.

I have, gentlemen, been for many years in foreign countries, and spent a long period of my best days in France. To me the customs and language of that country are almost equally familiar with those of my own. Every where I have found *hospitality*—*that* a peasant has it in his power to bestow; every where I have found *respect*—which every sensible person can render; every where I have been indulged in the article of my literary opinions, beyond credibility: this can only be permitted by scientific and literary characters; every where I have been looked up to, courted, caressed, and invited, and why? because I am a PHYSICIAN of the *British Empire!!*

It was only yesterday that I had the (and to me most gratifying) opportunity, of extricating a French gentleman from a difficulty he had fallen into, in consequence of his ignorance of our stupid usages. This gentleman is one of Napoleon's colonels, was aide-de-camp to Marshal Ney the day he beat Blucher at Ligny (June 15th, 1815), and there had his left arm shattered by a shell, in consequence of which he was obliged to submit to amputation.

Let me here lay down to young medical men—whose hearts and souls I believe to be in their profession—(to the old crows there is no use in appealing; let us leave them where they are, and turn our attention to the "rising generation") one golden rule: it is this—

Never consider a man to be your

inferior in talent or acquirements merely because he may not have been born under the same sky with yourself. ALIQUIS.

THE

London Medical & Surgical Journal.

Saturday, May 18, 1833.

THE HOUSE OF LORDS AND REFORM.

From what passed a few nights since amongst the hereditary legislators, we should almost despair of ever witnessing that reform in the medical institutions, for which we have so ardently, anxiously, and unceasingly sighed and prayed. We deeply deplore the spectacle that presented itself on the occasion to which we allude; we could not have imagined so much ignorance of the present state of things could have been displayed where science, honour, and justice should pre-eminently reign. One illustrious nobleman apparently knew little of what he spoke, and another who corrected him still less. We almost fear, that the noble Lords, to whom our prayers and petitions are poured in, have very little knowledge of the bearings of the questions. Some of them seem to know nothing of the College of Physicians, of the College of Surgeons, or the Worshipful Company of Apothecaries, whether in England, Scotland, or in Ireland. They are ignorant that they possess charters, they are unacquainted with their by-laws, and yet they are to legislate on questions affecting the lives of the community, and their own well-being. They have no idea of that which constitutes the difference between the regular practitioner and the quack; they have not informed themselves of the nature of the education which belongs to the scholar, the gentleman, and the man of real science; nor have they studied what improvements and alterations will best suit the want of the public, and the wishes of the profession. Most humbly do we implore those who intend to take a share in the approaching discussion, to make themselves masters of the subject, through the medium of honest and upright men, not through the fallacious statements of those who have an interest in deceiving them by specious reasoning, and cajoling them by well-timed flattery.

It is now no longer a matter of indifference to be a legislator; a seat in the Upper House has ceased to be the soft cushion on which well-fed indolence may repose, and luxurious selfishness stretch out its pampered limbs.

The profession look upon the body of the nobility of this country with wonder and astonishment. They have seen with unmixed feelings of contempt and disdain, the preference they have, on many occasions, given to uneducated, ignorant, and wicked men, in preference to those who have toiled with unceasing ardour through the difficulties that encircle science. They have seen them publicly patronise, defend, admire and reward Mr. St. John Long, and heap upon those who were his opponents contumely and scorn. They attributed the honest zeal with which medical men attempted to

tear off the mysterious garb of imposture, and expose the sordid nakedness of ignorance to selfish motives, to envy, and to all the bad passions which distort the human heart. Those "tenth transmitters of a foolish face," those hereditary legislators, who bore their martyred saint in triumph from the tribunals of justice, knew nothing of the education which forms the distinction between the medical man and the quack; they did not remember that it was to the laws they, in the plenitude of their wisdom, choose to make, that ignorance or science is to rule triumphant; they forgot that the example of their patronage of impudence and of assumption was of the deepest moment, that their sanction of folly threw over the whole medical profession a stigma as undeserved as it was ridiculous. As individuals, let them consult whom they please, but let them not publicly uphold the bad, and show their contempt for the good.

It is true, that amongst those who belong to the assembly that should represent all that is virtuous, all that is learned, all that is good, all that is great in this mighty empire, there are men who must command the respect, the esteem, the admiration of all; we cannot forget that such high-minded and learned men as Brougham, Eldon, Stanhope, the Duke of Somerset, Earl Spencer, and other patrons of science and literature grace the House of Lords, and it is from them we expect the best results, the happiest termination of the anxious cares of those who are deeply interested in the progress of truth, and in the advancement of the happiness of man.

At no period of our history was so much expected, at no period did men seem so little prepared for the great events, the chances, and the changes that must come. Those, to whom our interests have been, by the laws of the country, committed, have herculean tasks to perform; those, who have not been educated to fulfil the high duties of their stations will have ample cause to regret; but it is not yet too late for those who see the signs of the times, to avail themselves of the opportunities which are presented to them of self-instruction. They will read in the pages of the bold and honest journalist the opinions that are entertained, and whilst they weigh their value, they must remember that much is expected from them.

Such a display of carelessness on a most important subject, as was exhibited on the night to which we have alluded, will tend much to add to the dissatisfaction which is already visible. If men undertake to alter, correct, and amend the laws, they must show that they are already acquainted with those that exist, and not excite feelings which we should fail in describing, though we cannot but approve and admire them. To the representatives of the people we have as yet to turn, from them we expect protection, and an honest guardianship of the privileges we already have, and a liberal extension of those rights which never were intended to be monopolised by the select few.

THE LONDON UNIVERSITY.

THE proprietors of this Institution, together with the Council, have shown much wisdom in consigning the future management of the University to the professors. This is as it ought to be. They need only look to the bad effects resulting from the Town Council of Edinburgh being the managers of the university in that city. We need only refer to the exclusion of a Brewster, and the election of a Forbes, to the chair of natural philosophy. The one renowned throughout the scientific world, the other nearly unknown, having to establish his fame. The absurdity of allowing magistrates and tradesmen to fill up vacant professorships is unworthy of the people of Edinburgh, and should be forthwith put an end to.

GUN-SHOT WOUNDS.

To S. Cooper, Esq., Professor of Surgery in the University of London.

DEAR SIR,—I was forcibly struck with a passage in one of your lectures, recently reported in this Journal. You are there represented as having stated that you never met with a *bayonet* wound; and, if I recollect rightly, that Larrey, whose scope for observation in such matters has, at least, been equal to that of any surgeon in the world, has made a similar declaration. I myself had the fortune (good or bad) to be left upon the field of Waterloo during four days after the action, for the purpose of attending the wounded of both sides. The French left not a single medical officer with their thousands of injured men, as they would have done had their retreat been orderly; and all the fag and responsibility fell upon us of the *English* army. I will not say that we had neither Dutch nor Belgian surgeons among us, but I did not see any. In fact, as regards the Belges, there was comparatively little occasion for their detention, inasmuch as some twenty or thirty thousand of their countrymen walked away from the fight before they had time to get wounded.

The cavalry regiment to which I was personally and particularly attached, charged a column of the French at the beginning of the action, and was almost cut to pieces. Thousands of the *French, English,* (but very few of our *German* or *Hanoverian* friends, as their own medical officers looked well enough after them,) *Scotch, Irish, Dutch,* and even *Prussian* soldiers passed through my hands between the Sunday and the Thursday, (at which time we had cleared the ground, by burying the dead and forwarding the survivors to Brussels,) but amid all the horrible consequences of the firing and unerring application of weapons, I do not remember one instance of a *bayonet wound.* We had to deal with round shot, shells, musket balls, and sabres in every variety, but no trace of a bayonet made its appearance.

I am, dear sir, yours,
April 29. O.

CASES OF GASTRIC FEVER, TREATED BY DR. MACADAM, AT THE SOUTH-EASTERN DISPENSARY, DUBLIN.

A CASE of gastro-enteric fever occurred in a boy of twelve years of age, named Thomas C——. He was ill fourteen days; when first visited he complained of occasional pain about the umbilicus, anorexia, and thirst; tongue coated, red at the tip and edges; bowels rather loose; skin hot; pulse frequent; occasional headach; no epigastric pain. He was ordered minute doses of rhubarb, hyd. c. creta, and Dover's powder. Saline draughts occasionally, fomentations to the abdomen, and strict abstinence. The next day I found him much better; he had had three greenish dejections; the throat presented as light erythematous redness; some degree of febrile exacerbation was apparent in the evening. The powders, with a saline draught and a borax gargle, were

continued, and in a few days after I found him perfectly free from complaint.

The two next cases occurred in sisters, both inhabiting the same room. They had both been taken ill together a few days before I saw them; the eldest, nine years of age, had a considerable degree of pyrexia; tongue with a whitish-brown coating; papillæ red; great thirst; no abdominal pain or tenderness; bowels opened by medicine. The second sister presented nearly the same symptoms, in addition to which the bowels were confined, and there was some appearance of blood in her dejections. Small doses of rhubarb, with hyd. c. magnes. and Dover's powder, were used, with a strict antiphlogistic regimen, and occasional doses of castor oil. In a few days both were perfectly recovered. The mother, who slept in the bed with the two children, was also affected with some degree of fever, gastric irritation, and thirst, which came on, as far as I can recollect, subsequently to the illness of the children; this circumstance seemed to favour the idea of the contagious nature of the disease.

I have thus endeavoured, by the recital of the preceding cases, to exhibit this fever both in its severe and well-marked, and in its lighter forms.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, May 13, 1833.

WILLIAM KINGDON, Esq., President, in the Chair.

Pathology and Treatment of the Influenza—Attack on the Medical and Public Press—Common and Specific Inflammation — Former Epidemics—Atmospheric and Electric Influence—Constitution of prevailing Diseases — Prostration of Strength—Rubeola Nigra.

THE minutes of the last meeting were read, and as these were necessarily brief, in consequence of the adjournment in respect to the memory of the late Dr. Babington, those of the preceding meeting relative to influenza were requested to be read, in order to excite discussion.

Dr. Burne rose to make a few observations on the minutes, and remarked that the influenza commenced with great lassitude, pains in the bones, so severe that patients compared it to a sensation as if their bones were scraped, spasmodic or troublesome dry cough, little or no expectoration at first, and violent headach. It excited various diseases, according to the predispositions of patients. In some it caused catarrh, bronchitis, pneumonia, pleuritis, and, in old persons, peripneumonia. In most cases it yielded to mild measures; but when inflammation of any part was excited the ordinary plan of treatment was pursued. Of course great caution was necessary in the employment of depletion in aged or infirm persons; but he could not agree with those gentlemen who considered that bleeding was necessary in almost all cases.

Dr. Whiting begged to ask, through the President, whether Dr. Burne alluded to his remarks on a former evening; and Dr. Burne replied that his statements referred to those of several gentlemen.

Mr. Proctor observed that in his practice depletion was frequently necessary; and he considered that a medical journal did great mischief in publishing that the disease was mild, and might be successfully treated with saline diaphoretics. The newspapers copied the statement, and misled the public by making them believe that the influenza was a mild disease, and did not require bleeding. In his opinion the editor of the journal was guilty of murder; for in a case under his care the patient refused to be bled, and died.

Dr. Ryan remarked that he was not aware whether the Society had any right to censure the conduct of the medical editors; but he, as one, if the Society so determined, was ready to defend his published opi-

nions there or elsewhere. He did not stand up to defend what other editors might have published; but he was ready to maintain that all which appeared in the periodical with which he was connected was literally correct. He had written several articles on the late epidemic, and so had his colleagues; and he was ready to support every word that had been published on the influenza in the Medical and Surgical Journal. He had as ample opportunities of observing the disease both in public and private practice as any member of the Society—(and he made this declaration without the slightest vanity)—and his experience convinced him that the majority of cases in healthy subjects yielded to ordinary treatment, and to saline diaphoretics. He fully agreed to the accurate description of the disease given by Dr. Burne, and had seen several cases that required antiphlogistic measures. He contended that Mr. Proctor went much too far in accusing a medical editor, whoever he might be, of murder; for he should recollect that several anonymous letters from medical men appeared in the public prints, as well as extracts from the medical journals, the tenor of which was that the disease, if taken timely, yielded very readily to ordinary remedies, and was easily managed.

Mr. Clifton said, that the late epidemic deserved considerable attention, and that his opportunities of observing it were rather extensive. He had treated a very large number of patients. He did not lose a single case, and he had recourse to blood-letting in few instances. He entirely concurred in opinion with Dr. Burne, entertained similar views of the disease, and was convinced that the treatment should be modified in accordance with the inflammatory action excited by it. The greatest number of persons was relieved without blood-letting and by ordinary measures.

Dr. Williams (a visiter), reminded the Society of the description given by Dr. Beddoes of the influenza of 1803, and stated, that he had written to all the practitioners of eminence in different parts of the kingdom to learn their opinions. Their answers invariably were, that the disease did not require blood-letting.

The President said, that some of the poor who applied to him in the morning for advice were affected with anasarca, and he wished to know whether other members had observed this disease.

Mr. Field was desirous to learn whether any gentleman had seen erysipelas supervene in influenza.

Mr. Proctor observed, that the influenza of 1803 was accompanied by typhus; and as the Brunonian system prevailed, stimulation and not depletion was the order of the day. Besides, the disease occurred in autumn, and not in spring. He was anxious to learn from other practitioners, who had seen more of the late influenza than himself, whether depletion was not necessary. He wished to know Mr. Burt's opinion, as he had treated a great number of cases.

The President wished to remind Mr. P. that the disease occurred in spring in 1803.

Mr. Burt stated, that he had seen some cases, in a few he applied leeches, and in still fewer he used venesection.

Dr. Williams observed, that Huxham described a disease which he considered pleurisy, and in which bleeding was highly injurious.

Dr. Whiting said, that the meeting had closely approached a question which he had before introduced, and one of great practical importance, and that was the difference between common and specific inflammations. He proceeded at considerable length to explain his views, and necessarily introduced much hypothesis.

Dr. Shearman was unable to comprehend the views of the last speaker, he should wish to learn the distinction between common and specific inflammation. He never was able to understand the definition of the disease called inflammation, and he should understand this before he went into

its various species. The remarks he had heard were purely hypothetical, and as this Society was practical, he, for one, felt little interest in them. He wished to argue on logical principles, and when Dr. Whiting defined common and specific inflammations, he would then argue with him.

Dr. Whiting replied, that he, too, wished to argue logically. If Dr. Shearman could explain how one cause produces two opposite effects, he would then acknowledge he was in error.

Mr. Dendy said, that he was incompetent to comprehend Dr. Whiting. He would beg to ask, as the exanthemata were specific diseases, and as they were accompanied by great excitement, whether Dr. W. would not deplete when excitement was high and the pulse full, as well as in common inflammations.

Mr. Cole stated, that though he had heard a great deal on influenza, there was one symptom overlooked, and that was, pain in the intercostal muscles. He also observed, that the cough was dry, and unattended by expectoration.

Dr. Negri was very much surprised to hear of specific diseases. The influenza had arisen from a peculiar state of the atmosphere, and excited various inflammations according to the predispositions of those whom it attacked. He agreed with those who held that it was slight in many instances, but in others required depletion. He related a case of a gentleman who was fond of riding on horseback, and who stooped his head while in the saddle. He was seized with influenza, and the most troublesome symptoms he had was pain and soreness in the neck, which were so intense that the patient thought he should lose blood by leeches, and some practitioners would agree with him. He (Dr. N.) was of a different opinion, and was disposed to try sudorifics. He did so, and next day the pain was gone. Others had pains in the sides, loins, &c., according as they had been exposed to draughts or currents of air. He was of opinion, that the ungenial state of the weather was the cause of the influenza, and that it was not a specific disease.

Dr. Whiting remarked, that if the atmosphere was the cause of the disease, it was singular that it now prevailed to a great extent in different parts of the country.

Dr. Burne thought, not since the warm weather had set in.

Mr. Blenkairne observed, that he was convinced the electrical state of the atmosphere had great influence on the disease. The wind for nearly two months was north or north-east, but since it became south and west, the weather became mild, and the disease disappeared. He had proof of atmospheric influence in his own case. On a certain day the wind had changed to the north-east, and, while he was showing a patient to the door, he was exposed to a current of air, when he felt a degree of languor and prostration such as he had never experienced before.

Dr. Burne remarked, that the electrical influence had great power on the body, but it was little understood at present.

Mr. Clifton had observed the weather with care, and said that, for two months, the wind veered from north to west and south. It should be recollected that the winter was unusually mild, and there was scarcely any frost or snow, and that the end of March and the whole of April were most ungenial. This would account for the influenza, or the increase of those pulmonary diseases so common in spring. He had remarked that ordinary diseases were attended with an unusual degree of prostration, and he thought if this warm weather continued, the type of febrile diseases would be low. He would take the opportunity of stating, that Dr. Whiting's views on common and specific inflammations were perfectly intelligible to him.

Mr. Dendy observed, that these views were totally unintelligible to himself. He should wish to know,

whether Dr. W. would not lower excitement in the exanthematous diseases, when there was high excitement and a full pulse.

Mr. Blenkairne was also surprised at Dr. Whiting's description of the influenza; on a former night he said, that the head was primarily affected, and this evening he maintained bronchial or pulmonic inflammation was the characteristic of the disease.

Dr. Whiting replied that he was most unfortunate in being generally misunderstood by the Society on this and many other occasions. He never said, that the head was first affected in influenza, nor could he have any hesitation in depleting in the exanthemata. He then recapitulated his opinions on common and specific inflammations.

Mr. Dendy was desirous to confirm an observation made by Mr. Clifton, as to the low type of the prevailing diseases. He had seen this month seven cases of the rubeola nigra, and for the five last years but two cases. This form of measles was a corroboration of the type of the prevailing febrile affections.

Dr Shearman said, that he should like to know what was the conclusion of the Society on the nature and treatment of influenza. After an hour and a half's discussion, they were as wise as when they met. For his own part, he considered it a catarrhal fever, which excited inflammation on those predisposed to disease. It did not require depletion in most cases. It bore a strong resemblance to the influenza of 1782, which was, like it, a mild disease but the most prevalent he remembered.

The time of the Society having expired, the President announced that Dr. Williams was ready to exhibit a simple apparatus for extracting poison from the stomach. This consisted of a flexible tube, to one end of which a bladder was attached by a piece of ivory; on the other end was a pipe, and over this a brass plate, which might be replaced by a piece of wood, so as to receive a large cupping-glass. When the tube was placed in a vessel of water, and the glass exhausted by the ignition of spirit of wine, it was then placed on the brass plate, and speedily drew the water from the vessel.

MEDICO-BOTANICAL SOCIETY.

May 14th.

Humphrey Gibbs, Esq., in the Chair.—After the usual routine of the private business of the Society, during which several very handsome donations of herbaria, &c. were announced. Dr. Ryan, the Professor of Materia Medica, delivered a lecture upon the different substances that have been lately introduced into practice; amongst these the sulphate of quinine and cinchonine, ilicine, strychnine, the secale cornutum were more particularly dwelt upon. He deduced the origin of the introduction of each substance from its first discovery, and the circumstances under which it had been employed. He gave the different formulæ for the preparation of each, the doses, and enumerated the diseases for which they had been found of use At the next meeting it was announced that a paper on toxicology would be read.

SECOND GENERAL PUBLIC MEETING OF THE MEDICAL PROFESSION,

Held at Saville House, Leicester-square, on Tuesday, the 7th instant, for the establishment of

CONCOURS IN ENGLAND.

Dr. Granville in the Chair.—The Chairman expressed himself particularly flattered in being selected to preside over so respectable a meeting of his professional brethren, including a large proportion of medical students, who, actuated by that spirit of improvement which must ultimately lead to very important and beneficial results, had assembled for the purpose of petitioning Parliament to adopt a new plan for the election of officers to the various medical institutions of the country. The petition had been drawn up by the direction and with

the approbation of the committee appointed by the first general meeting, and would be read by the honorary secretary to the meeting, with the view of ascertaining their opinion on its merits. He begged to remind the meeting that such a document could only be presented to the legislature as the expression of the opinions and sentiments of those who signed it; but if the principles it embraced were just and sound, if they were supported by facts and self-evident allegations, even though limited as to signatures, the petition would work its way to the production of the glorious results they all desired, with as much certainty as if it bore on its face the name of every member of the medical profession. The plan upon which the committee had decided, and which would be submitted to the meeting, was founded upon that known in France by the name of the concours; the machinery of it had been, however, considerably simplified, and the time employed in working that machinery limited to one day, while the principle of the ballot in all its purity had been adopted with respect to the decision of the examining body or umpires. The Chairman concluded with the expression of a hope that every gentleman (whatever his sentiments) would be listened to with that attention which a subject of such importance demanded, for the object of the meeting was to elicit and support truth, and not to gratify projectors and visionary schemers. (*Applause.*)

The petition was then read by the secretary, Mr. G. H. Butler, and was received with considerable applause.

Mr. Dermott then rose, and observed that with regard to the broad principle itself upon which they started, i. e. the principle of concours, or competition of talent, there could be no doubt existing about its propriety in the minds of any present, indeed, that had been already admitted by, he believed, all the medical journalists; and, having once said so, they could not go back from their assertion. *One journalist,* the editor of the leading journal in medical reform, has objected to the time at which we are petitioning being premature; but with all deference he (Mr. Dermott) thought that this was the very time when all the members of the profession ought to unite to express to Parliament their opinions and wishes about so important a branch of medical reform. When Parliament—a reformed Parliament—is engaged in re-modelling all the medical corporate bodies, and effecting a general medical reform, it was our duty to pray them to make the subject of this petition a branch of their inquiry, and of that reform. He wished to see the word concours, or something analogous, engrafted into the laws of corporations and public institutions. *Another journalist,* although admitting the propriety of the principle, has objected to its practical adoption, because it is *liable to abuse,* and is abused in France. What wise ground for objection! He would like to know what under the sun, however highly to be praised, is not liable to be abused. It was abused, he believed, in France, by one of the most intriguing courts that ever existed. They had met that day to devise a plan for adopting a *pure* system of concours, and a plan which would prevent that amalgamation complained of in France between competition of merit, as instituted under the Napoleon dynasty, and the competition of personal influence and favouritsm. The characters who at present shine in France, he believed, were only the embers of that period so glorious for talent and industry, and which blazed with so much splendour.

It had been also observed by the journalist last alluded to, that the present system "works well; for," says he, "look how many clever men we have filling situations in those institutions." This is not the proper light to view it in. No doubt that some of them were very clever men, where money, influence, and talent happened to go hand in hand; and no doubt the ma-

jority were able to perform their daily routine of duty, in consequence of the extraordinary opportunities they had availed themselves of by means of money; but the question was, if a competition of talent had existed, instead of the present system of favouritism, how many of them would be at present occupying those distinguished situations? And again, how many medical men of talent and genius are now in comparative obscurity and poverty, because they have had no exciting cause for exertion, no money, no influence whereby to develope themselves to the public. Nothing will make the public zealously interested for the medical institutions of the country but concours!—Nothing will make the profession feel its own intellectual strength and importance but concours!—Nothing will establish for the pupils a liberal system of medical politics but concours!

With regard to the petition just read, he (Mr. Dermott) did not agree with every part of the system proposed in it, he thought it would require much alteration; he therefore moved that the petition be read clause by clause. (*Great applause.*)

The motion having been seconded,

Mr. Butler rose and said, he should not have intruded himself upon the meeting but for the concluding observations of Mr. Dermott; but, as secretary to the committee to whom had been intrusted the charge of preparing the present petition from one laid before a former meeting by Mr. Dermott himself, he felt it a duty he owed to the committee to state that at the several meetings of the committee Mr. Dermott had not only never objected to, but had even cordially approved of all the alterations which had been proposed. The petition just read to them was precisely the same in *principle* as the one with which Mr. Dermott had favoured them at a former meeting, with this important improvement, however, that it had been freed from that injudicious violence of language which rendered it unfit to be laid before a deliberative assembly. In these observations he begged to be considered as offering no disrespect to Mr. Dermott, for whom he entertained the highest esteem, and to whom he considered the profession and the public owed a deep debt of gratitude for the enthusiasm with which he had advocated the present measure. He (Mr. Butler) was a humble but a very cordial supporter of the plan now proposed; and indeed he was at a loss to imagine what ground its opponents had to stand upon. How, he would ask, could any reasonable individual oppose a system which took from manifest incompetent persons the power of placing (for aught they knew) an ignorant and unskilful man in a situation like that of a physician or surgeon to an hospital, when the lives of so many of his fellow-creatures might be thus wantonly sacrificed. Again; what could my Lord this, or my Lady that, know about the medical qualifications of a man whom, perhaps, they had never seen, and whose practice they had never witnessed; but who had been recommended to their notice by some noble relative whom they dare not disoblige: but he did not look with delight on this measure solely on its own merits; he regarded it as a stepping-stone to still greater and more important improvements in medical education. He trusted the time was not far distant when five of the most precious years of the medical student's life would no longer be wasted in compounding pills and selling penny-worths of rhubarb and jalap. (*Great applause.*)

Mr. Lunn was one of those who considered the petition very much improved by the alterations which had been made; he would give the measure his most cordial support. (*Applause.*)

The petition was then read by the Secretary, clause by clause, and each clause put separately to the vote; some amendments, principally verbal, were proposed and carried. The Chairman then put the question, that the petition be adopted, when

Dr. Lynch rose, and in a strain of great eloquence expressed his extreme surprise that a meeting of medical reformers should in any plan of reform, have omitted the extinction of the ridiculous, the absurd, the unjust distinctions, which existed in the profession, in its division into surgeons, physicians, apothecaries, &c. &c., and which had done more than any other cause to give rise to the abuses which at present existed. The speaker was reminded by the chairman, that he could not listen to reasoning, which, however eloquent and true, was yet totally irrelevant to the objects of the meeting, besides which, the resolutions which contained the expressions to which he objected, had been already unanimously agreed to by the meeting. Dr. Lynch again attempted to address the meeting in the same strain, but was met by loud cries of order, from all parts of the room, on which he desisted, and the petition was adopted by the meeting, amid the warmest expressions of approbation.

A resolution, intrusting the petition for presentation to Dr. Baldwin, was then carried unanimously.

Mr. M'Carron moved, and Mr. Butler seconded, the following resolution, which was also carried with great applause.

"That the cordial thanks of this meeting be, and hereby are, given to G. D. Dermott, Esq., the warm supporter of concours in this country, and the originator of the present proceedings."

The thanks of the meeting were then, amid the warmest expressions of approbation, given to the Chairman, who briefly returned thanks, and the meeting separated.

PETITION OF MEDICAL PRACTITIONERS AND STUDENTS.

To the Honourable the Commons of the United Kingdom of Great Britain and Ireland in Parliament assembled.

The humble Petition of the undersigned Medical Practitioners and Students,

SHEWETH—That at present Professors, Lecturers, and Medical Officers, of every grade, from the highest to the lowest, and whether salaried or paid in fees, obtain their appointments in all the public institutions of England connected with medical and scientific instruction and medical practice, either by the payment of certain sums of money, family influence, or by the mere exercise of private and sometimes political interest.

That such Professors, Lecturers, or Medical Officers, never undergo any sort of test or scrutiny by which the professional qualifications they may happen to possess, entitling them to fill those situations, can be ascertained.

That in those institutions in which the formality of an election obtains for the filling up of any vacant medical office, the electors have no means of judging of the comparative elegibility of the candidates beyond the mere suggestions of relationship, friendship, and patronage, or the delusive testimony of written certificates.

That, in the majority of instances, the result of the election is forestalled by the secret exertions of a few individuals, whose object is not to make the best choice among the several candidates, but to secure the success of some favourite, long before the vacancy in the office which is intended to be filled has been made known to the public or the profession at large.

Such a system (your humble petitioners have every reason to believe) has been and still continues to be productive of the most injurious consequences to society in this country; and your humble petitioners are prepared to prove, that in several instances of recent occurrence, the public, particularly the sick and the students in the medical sciences, have been deprived by the said system of the benefit of superior talent and experience, which were made to yield to qualifications, greatly inferior, but backed by favouritism and secret influence.

It is (in the opinion of your humble petitioners) like offering a boon to ignorance, to permit a system to exist, undisturbed by legislative interference, which must necessarily overlook real talent, acknowledged experience, or scientific skill, for the purpose of bowing to selfish and interested motives in the selection of individuals destined to fill responsible and lucrative situations in public institutions, and the natural effects which flow from such an uncontrolled exercise of the least commendable over the better kind of feelings are a proportionable discouragement to real merit, a sacrifice of genuine though unpatronised talent, and a corresponding check to the development of those faculties of the mind which, when properly fostered, have produced in this more than in any other country, perhaps, such brilliant and glorious results.

In order to put an end to consequences so prejudicial to the best interests of the community, and which are silently working the degradation of the medical profession in this country, it is important (as your humble petitioners presume to suggest) that, independently of the entire abolition of the monopolies of medical corporations, and the setting up in their stead of a free and equalised system of medical education and medical legislation, all candidates who seek to fill a vacant office in any public institution connected with medicine or the medical sciences, should have their qualifications properly inquired into by a bench of medical examiners, and their abilities put to certain tests or trials in the manner and to the effect hereafter enumerated, constituting a species of competition among the said candidates, or what has been denominated a Concours on the Continent, for this purpose.

1st. The bench of Medical Examiners shall consist of not less than seven members, and be composed of such medical officers and accredited medical teachers as are connected with the public institutions of the town, city, or county in which the vacancy occurs; such officers or teachers to profess that branch of medical science to which the vacant office immediately refers, and to be summoned in their respective turns by a letter from the Secretary of State for the Home Department when occasion requires.

2nd. All examinations or trials by competition should be public, and begin and end at one sitting. The examinations to be conducted in the English language.

3rd. The several trials to which the candidates are to be subjected to be as follows:—

A. For all classes of candidates, whether physicians, surgeons, assistant surgeons, apothecaries, lecturers, or professors.

1st. The exhibition of any work, paper, essay, memoir, or other writing, published by them previous to the examination.

2nd. The answering, *vivâ voce*, a given number of questions, put extempore by the medical examiners, on all the principal branches of medical science and practice, on the art of prescribing medicines, and the manner of drawing up reports of *post mortem* examinations.

3rd. The composition of an essay or lecture on any subject selected at random by the candidates themselves out of several such subjects proposed by the examiners, which subjects shall have a bearing or an immediate relation to that department of the profession which the candidates aspire to occupy.

4th. The production of such testimonials only as are obtained from Bodies or Courts of Examiners recognised by Government.

B. For such as are candidates for the office of surgeons, surgeons' assistants, &c., in addition to the trials already mentioned.

1st. To demonstrate a part of the human structure on the dead body, indicated by a paper, which shall be drawn by the candidate from an urn, in which several such papers, with

the names of the parts to be demonstrated shall have been deposited.

2nd. To perform a capital operation on the same, to be indicated as above by a paper drawn as above by the candidate.

C. For such as are candidates for the office of apothecaries or dispensers of medicine, in addition to the general tests already enumerated.

1st. To be questioned as to their practical knowledge of drugs and the best mode of preparing them for use.

2nd. To name a given number of drugs placed before them, and give a short account of their nature, history, and physical character, and the best mode of preserving them.

D. For such as are candidates for the office of physicians and surgeons accoucheurs.

To be examined as to their knowledge in obstetrics and the diseases of women and children.

Each examiner should be furnished with a list of the names of all the candidates, and it shall be his duty, at the conclusion of each trial, to mark against each candidate's name the valuation which he the examiner shall have been able to make of the qualifications of that candidate, adopting a scale of numbers to represent such valuation, from 1 to 20, and this operation each examiner shall perform without any communication with his colleagues, and on the very spot fold the list up without any signature, and deposit the same in an urn placed in the charge of two scrutineers.

The scrutineers shall be named by common agreement among the candidates themselves previous to their examination, and shall be present during the whole of it to see that the competition or concours is properly conducted; and they shall at the conclusion of the concours publicly examine and sum up the numbered lists deposited in the urn, and declare the sum total of the numbers which each candidate will be found to have in all the trials taken collectively.

A person deputed by the council or administrative body of the public institution in which the vacant office occurs, shall preside at the meeting during the whole of the competition or concours, and proclaim that candidate to be elected to the vacant office whom the scrutineers shall have declared to have the highest total number affixed to his name.

Your petitioners therefore humbly pray that your honourable house will institute an inquiry into these facts and allegations, or lay them before the committee now sitting on corporate bodies, for the purpose of deciding whether it would not be more advantageous to the interests of society to adopt the plan herein respectfully submitted.

And your petitioners, as in duty bound, will ever pray, &c., &c., &c.

Reviews.

A Manual of Pharmacy. By Wm. T. Brande, F.R.S., &c. Third edition, corrected and enlarged. 8vo. pp. 544. London, 1833. Renshaw and Rush.

In our last number we briefly noticed the general merits of this useful Manual of Pharmacy. It contains valuable and solid information, carefully and scientifically digested, and must be considered an important treasure to the pupil. The object of the work has been to furnish the student with an outline of the course of pharmacy annually given at the Apothecaries' Hall; besides which, it forms a compendium of the more remarkable facts of chemistry. The principal improvements in the present edition, consist in greater attention to the botanical characters of the plants which are used in medicine; in more minute and detailed histories of the different articles; and, besides this, Mr. Brande has made a much more important addition in giving to us their component parts, according to

the latest and best analyses that have been furnished.

The quotations from medical authorities on important points, are much more freely given than in the preceding editions, and the author has very properly and judiciously availed himself of the labours of the best pharmacologists who have preceded him. It is a matter of regret, however, that it remains only a manual of the British Pharmacopœias, and that it follows the bad example of that sweetly slumbering body, the College of Physicians, in passing by unnoticed all those most serviceable substances which the ardour, the industry, and the sagacity of different members of the profession have proved to be fit and proper agents in the cure of disease. We could hardly have expected so enlightened a teacher as Mr. Brande, would have confined himself to the old and beaten track, and that he would not have gathered in his scientific journey, some of the beautiful flowers which adorn the road-side.

We have looked in vain for some information, which to the student is absolutely and indispensably necessary, upon many remedies which are now universally recognised and admitted into practice, although they may not be known to the College of Physicians, amongst these are secale cornutum, strychnine, lobelia inflata, diosma crenata, and many others, which richly deserve their station in our pharmacopœias; nor can we consider any work either a proper dispensatory or an efficient manual of pharmacy and of the materia medica, that does not at least give some notice upon these important points. Few of the articles have been rewritten, but many paragraphs have been inserted of some utility; as examples of which, we give some that have been introduced under opium.

"*Muriate of morphia* is a very soluble salt, forming bunches of acicular crystals; it is best obtained by digesting excess of morphia in dilute muriatic acid, filtering the solution, and evaporating. It has a bitter taste, and is an excellent narcotic, affecting the head less than the other preparations, and scarcely possessing any exciting powers; the dose is about half a grain. Eight grains dissolved in an ounce of distilled water forms a good solution for general use."

"*Battley's sedative solution* and the *black drop*, are two preparations of opium much in use; the former is less stimulant than opium, and in strength about equal to the officinal tincture; it is said to contain acetate of morphia, the resin and extractive being separated.

"The black drop was originally made about 100 years ago, by Edward Runstall, of Bishop Auckland, in Durham. It has been stated by the late Dr. Armstrong and others, that it is prepared by slicing half a pound of opium, and boiling it, in conjuction with an ounce and a half of nutmeg, and half an ounce of saffron in four pounds of verjuice; then adding a quarter of a pound of honey, and two table-spoonfuls of yeast; this compound is allowed to ferment for six weeks in a warm place, after which it is decanted, filtered, and bottled, adding a little sugar to each bottle. Were this recipe correct, it is evident that the black drop would contain an acidulous acetate of morphia, which is the case, as the drop, when diluted with water, and tested by litmus, displays acid properties: it is affected by most of the usual tests of opium, and indicates the presence of morphia by nitric acid and permuriate of iron. The nature of this preparation is, however, unknown. It is much more powerful as a narcotic than the officinal tincture, three drops of which are only equal to one drop of the black drop."

For the botanical additions, we refer to such articles as cinchona, sarsaparilla, acacia, &c. &c., where it will be observed that the learned author has fully dwelt upon all the different characters of the plants, and that he has added, in foot-notes, at the end of the page, the different

classifications. He has, therefore, very much improved and augmented a work, which has already obtained a high character, and which will be found a most valuable assistant to the student in the paths of medical and chemical science.

An Analysis of Inorganic Bodies. By J. Berzelius. Translated from the French Edition. By G. O. Rees. Longman and Co.

The name of Berzelius is always mentioned with respect and admiration by scientific men. He was one of those who stood forward when chemistry was making those splendid discoveries, which have thrown over the world a light unknown to former ages; when a mighty revolution, commencing with the analysis of bodies, had excited the minds of philosophic men, when, for the first time, an inquiry was made into the nature of the circumambient air, of water, of acids, of oxides, of metallic solutions, and of vegetable and animal principles; but he has never stood still, he has been amongst the foremost leaders of science, and he has of late given a greater perfection to analysis, and has inquired into the great laws of chemistry with the most praiseworthy minuteness, and with wonderful accuracy. The little volume before us is a translation from a section of the work of Berzelius, on Chemistry, executed with great fidelity, and containing matter of the utmost value. It embraces directions for the analysis of inorganic bodies, a subject which amply displays the knowledge, the judgment, and the accuracy of the chemist. He points out the two kinds of analysis—that which is to ascertain what are the constituents of each substance, and that which is to tell us in what proportions these constituents exist; the first of these is denominated the *qualitative analysis*, the second the *quantitative*. The latter of these undoubtedly is the most difficult task which falls to the lot of the chemist; but it has lately attained a higher degree of perfection, owing to the doctrine of chemical proportions.

Berzelius has, in this tract, given the most ample directions for the performance of analyses, and hence it forms one of the most important assistants to the manipulator and to the chemical philosopher.

Principles and Illustrations of Morbid Anatomy, adapted to the Elements of M. Andral, and to the Cyclopædia of Practical Medicine, being a complete Series of Coloured Lithographic Drawings, from Originals by the Author, with Descriptions and Summary Allusions to Cases, Symptoms, and Treatment, &c., designed to constitute an Appendix to Works on the Practice of Physic, and to facilitate the Study of Morbid Anatomy in connexion with Symptoms. By J. Hope, M. D. F. R. S., Physician to the Mary-le-bone Infirmary, &c. London, 1833. Part III. Whittaker, Treacher, and Co. Four Plates. Twenty Figures.

The present part of the work before us is occupied with a description and delineation, by beautifully coloured plates, of the diseases of the heart and pericardium. It contains a vast deal of highly important information. Few physicians are so well qualified to describe diseases of the heart as Dr. Hope, who has produced decidedly the best original work on the subject. He has executed his task in the ablest manner. His present work well deserves the patronage of every real admirer of medical science. It is far superior to any thing attempted in this country. It is equal to Cruveilheir's on Morbid Anatomy, and will be one of reference and authority. It is highly creditable to the zeal, industry, and talents of the author, and must obtain the fullest encouragement from the profession.

A Short Treatise on the Operation of Cupping. By MONSON HILLS, Cupper to Guy's Hospital. London: E. Cox. 12mo. pp. 88. 1 pl.

THIS is one of the best guides for students and those desirous to become cuppers that we have seen. It is evidently the production of one well acquainted with the subject, and contains all the information that novices in the art may require. The practice of cupping is now so common that every general practitioner, especially those residing in the country, should be acquainted with it. It is an operation that requires scientific knowledge, and is performed with difficulty in many parts of the body by those commencing their career.

We need not dwell on its importance: it must be obvious to every one engaged in the practice of medicine.

NECROLOGY.

It is with considerable regret that we announce the death of Dr John Waldron Watson. He was an amiable, judicious, and excellent physician, an affectionate husband, a loving parent, and sincere friend. He unfortunately allowed his good nature to prevail over his judgment, by becoming security for a relation, who involved him in such difficulties, as to leave his lady and six children totally unprovided for.

BOOKS.

Observations on the present State of Pharmacy in Ireland, with an exposure of certain extraordinary and illegal steps taken in the Corporation of Apothecaries' Hall, Dublin: also, critical remarks on the proceedings and opinions of the Dublin Committee, and suggestions on the subject of the professional education of Apothecaries, as a ground-work for an amended bill for the regulation of that profession. By DENNIS PHELAN, M.R.C.S., London, and Licentiate of Apothecaries' Hall, &c. Dublin: 8vo. pp. 160. 1833. Clonmel, J. Hackett.

This is a spirited review of the defects of the Irish Apothecaries' Act, and a manly exposure of the abuses committed under it. We shall notice this essay at our earliest convenience.

Considérations sur la Nature et le Traitement du Choléra-Morbus, suivées d'une Instruction sur les préceptes hygiéniques contre cette maladie. Par le Chevalier J. R. L. De Kerckhove dit de Kirckhoff. A. Anvers, chez Madame Latour, à la librairie classique, Marché aux œufs, No. 619. 1833. 8vo. pp. 217.

Alphabet of Scientific Chemistry, for the Use of Beginners. By JAMES RENNIE, M.A. Professor of Zoology, King's College, London. 12mo. pp. 193. London: W. Orr. 1833.

This little volume will admirably lay the foundation of chemical knowledge. It is one of the best works we have perused for the instruction of the chemical student.

CORRESPONDENTS.

In Dr. Simon's letter, the word "charges" should have been "chargers."

D. H. M.—We shall be much obliged by the articles, but cannot promise to insert them in succession, as our arrangements at present do not permit it.

D. P.—We shall attend to the matter at our earliest convenience.

A Reformer.—We are beginning to fear that the Government is vacillating on the subject of Medical Reform. We anticipated this; for ministers who have so often contradicted themselves are the most likely to be imposed on by the various interested persons of our corporate monopolies. The declaration of the Secretary of the Home Department in the House of Lords on Monday, clearly shows that Government is lukewarm on the subject.

S. is too severe.

An Author.—We acknowledge every work, large or small, which we receive. We notice each as soon as possible. Some recent works have not reached us, though intended for us by their authors.

An Edinburgh Graduate.—The advocacy of the Apothecaries' Hall in that quarter does not surprise us; though we think the legislature never intended to allow the Apothecaries' Company to interfere with graduates in medicine; still we are sorry to perceive physicians descending and competing with trading chemists and druggists.

Medicus.—We have felt the pulses of several of the influential licentiates, who laugh at and despise the anility of the college. They say, what does the world care or know about the titles Fellows and Licentiates. They call us in, they know we belong to the College, and that is all they care. It is evident, from this selfish argumentation, that the Licentiates are indifferent to reform in the College, and that they care not how soon physicians cease to be. Well may the College call them a rope of sand, and of insulted inferior practitioners.

Amount of Subscriptions already received in aid of Dr. Ryan . . . £226 16 6

Dr. MacAdam, of Dublin . . 1 1 0

ALL Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 69. SATURDAY, MAY 25, 1833. Vol. III.

LECTURES
ON THE
PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXXVII., DELIVERED JAN. 3, 1833.

Gentlemen,—In addition to the matter already delivered on the prognosis in fractures, I think it useful for you to understand, that the danger of fractures depends more on the injury done to the soft parts, or on the state in which they are placed by the accident, than on the affection of the bone itself. The injury of the bone, abstractedly considered, is not dangerous; and whatever bad consequences follow, will mainly depend either upon the degree of mischief done to the soft parts, or upon the inflammation of such parts, excited by the same violence that broke the bone; or upon the irritation of them by the spiculæ and sharp projections of the fracture. In short, the principal evils to be apprehended will depend on the condition of the soft parts, produced by the manner in which they are affected by the fracture, or else by the same force that occasioned the injury of the bone. This is illustrated by what takes place in fracture of the sternum, ribs, cranium, or spine; here you will immediately perceive, that the peril arises from the injury which may happen to be done to the important organs, which those parts of the skeleton are designed to protect. A fracture of the cranium is in itself an occurrence not likely to cause a single bad symptom; but, if you take into the account the injury which may have been done to the brain, you will see where the real danger lies; and in the same manner, if you reflect, that, when the ribs are broken, the lungs may be injured, or that when the vertebræ are fractured, the medulla spinalis is likely to be wounded, or compressed, you discern at once, that the danger depends not so much upon the state of the bones, as upon the effects of the accident upon other organs.

Gentlemen, I will next endeavour to convey to you some idea of the principles, by which the treatment of fractures in general is regulated; and first, it is useful for you to know, that three grand or general indications present themselves in this department of surgery,

The first is, to reduce the ends of the fractured bone into their proper situation—to bring them into the position which they ought to hold with respect to one another. This is called *setting the fracture,* or, more technically speaking, it is the *reduction* and *coaptation* of it.

The second indication is, to keep the ends of the fracture in their right position, after they have been put evenly together; an object that is accomplished by contrivances, which will hold the fragments steadily in contact until they are united by a process hereafter to be considered.

The third indication is, to take measures for the prevention of any disagreeable consequences, or symptoms, which are likely to arise, and for relieving them, if they should actually come on. It embraces, therefore, the adoption of means calculated to keep down inflammation, the strict and prompt removal of every source of irritation, and the very essential maxim, of paying attention to the patient's general health.

The *first indication* is the *reduction of the fracture,* by which is meant, the bringing of the fragments into their proper situation, in relation to one another, and it claims of course our earliest consideration. Amongst the old surgeons, the invariable custom was to go through the formal manœuvres of reduction, and to employ extension, whether the fracture was accompanied by displacement or not. When a man had the misfortune to break his limb, the said limb was always most roughly handled afterwards for the purpose of *setting it,* as the phrase was. In fact, *extension, counter-extension,* and *coaptation,* were insisted upon

as matters of course, whether there was displacement or not, a circumstance so contrary to common sense, that it will hardly now be credited. *Extension*, means pulling the limb in the direction away from the trunk, in order to obviate the retraction of the lower fragment. Now, gentlemen, it must be evident to you, that if extension alone were employed, the whole limb and the body too would yield, and be drawn in the same direction, and the patient would perhaps be pulled off his bed; it is necessary to prevent this inconvenience, by what is called *counter-extension*, that is, by pulling the upper part of the broken limb in the opposite direction. I need scarcely say, that some cases will not require extension and counter-extension at all; there may be no displacement, and then such proceedings would only be putting the patient to useless pain. Extension, counter-extension, and coaptation, when they are necessary, should always be performed with the greatest possible gentleness, no more force being exerted than is absolutely indispensable. Whenever there is displacement, they are manifestly proper, but under other circumstances, that is, when a bone is broken, and the ends of the fracture not at all out of their right position, the attempt to make better what is already right, is too absurd to require any comment. Modern experience teaches us also, that not one quarter of the force is necessary for the purpose of reducing broken bones, that was formerly resorted to, because surgeons of the present day avail themselves of the advantages derived from the relaxation of those muscles, which have the chief power of displacing the fragments. This is the principle on which the late Mr. Pott insisted with so much eloquence: thus, in fracture of the bones of the leg, you relax the powerful muscles of the calf by bending the knee, by which means the displacement may be obviated with little difficulty, and with the employment of less force than would otherwise be necessary. The same thing is illustrated in the case of a broken thigh; but here, the position, which, in Mr. Pott's opinion, has the greatest effect in relaxing the principal muscles capable of disturbing the fracture, is unfortunately not that in which the most effectual mechanical means for maintaining the reduction, can be employed. These matters I shall explain further, when I come to the consideration of fractures of the femur. The principle of relaxing the muscles, therefore, I think, should not completely preponderate over all other influential circumstances. It was noticed by Desault, that what you gain by the relaxation of one set of muscles, you lose by the increased tension of others; now, it seems to me, that this is another fact, which you should not forget; and at all events, in whatever position you place the limb, you will still find an abundance of muscular fibres capable of producing a displacement of the fracture. This is another circumstance deserving particular attention, because it will let you understand, that you must not depend entirely upon position for effecting the end you have in view, but that you should bring to your assistance every other means within your reach. As in oblique fractures of the long bones, there is mostly considerable displacement, greater extension will be demanded, than in the case of a transverse fracture. The latter kind of accident generally requires but little extension, merely just what is sufficient to lessen the friction and pressure of the surfaces of the fracture against one another at the period of coaptation; indeed, in such a case there is seldom any retraction, and whatever displacement exists is of other descriptions.

When extension and counter-extension are practised to obviate the retraction, or shortening of the limb, no unnecessary force should be exerted; the bone should be pulled steadily and gently in the natural direction of its axis, until it resumes its proper length, and then the two ends of the fracture are to be adjusted, or, in technical language, *coaptation* is to be performed. In certain cases, a good deal of trouble arises from continual spasms of the muscles; and, if the patients be strong and athletic, it will be advantageous to bleed them freely, and put them under the influence of opium, or hyoscyamus, when the reduction will be more easily accomplished and maintained. The mode of reducing particular fractures requires attention to various circumstances, which can only be understood by studying each case individually, which we will endeavour to do in future lectures.

The *second indication consists in preventing a return of the displacement;* or, in other words, *in keeping the ends of the broken part of the bone steadily in contact*, so that *nature may have a favourable opportunity of uniting them.* This indication is so plain as hardly to require explanation: the ends of the fracture must be kept motionless, for if this were neglected, they would not be united by osseous matter, but an artificial or false joint be produced by the ends of the fracture becoming smooth, and joined together by a fibrous ligamentous substance. In the preparation before you, gentlemen, six ribs are broken, and united only by ligament: no doubt, in this case proper means had not been taken to prevent the motion of the chest in respiration. From the dry state of the preparation, you might not at first perceive that the union had not been effected by means of osseous matter; but, on closer inspection, you will see the real state of things. Here is another example of a similar occurrence: this bone belonged to a scrofulous subject, and was broken twice; the first time, I believe, by shampooing; union of the injury followed in the proper manner; but, on the bone being broken again in another place, the second fracture did not unite by bony matter, and a false joint was formed. The ends of the fragments are smooth, and connected by ligament. The preparation illustrates another fact, namely,

it shows that particular states of health will affect the condition of the skeleton; and that a false joint may then follow a fracture, though the ends of the bone be kept steadily in contact: in short, the case may terminate just in the same unfavourable manner as would happen if a fractured, but healthy, bone were not kept duly at rest.

To keep a broken bone motionless, gentlemen, we are obliged to have recourse to various mechanical means, consisting, generally, of long thin portions of wood, or tin, or of pasteboard, termed *splints;* and along with which we also employ pads, compresses, cushions, and bandages. Such contrivances, constituting the *apparatus,* I will show you when we come to the consideration of particular fractures. It is in order to prevent the hard splints from hurting the skin that we interpose between them and the integuments some kind of soft materials, such as pads filled with tow, wool, or chaff of oats, which is preferred in France. In fractures of the shoulder, and of the bones of the upper extremity, a *sling* is another contrivance of great service; for it not only supports the limb in the most desirable position, but keeps it as quiet as the leg would be by confining the patient to bed. In other words, a sling is as useful for fractures of the upper extremities, in keeping the parts quiet, as the recumbent position is for fractures of the lower limbs, with this additional advantage, that, as the patient is not confined to bed, he can take exercise, and his health will be less likely to suffer. The sling should never be omitted in all cases where the clavicle, scapula, humerus, bones of the forearm, or those of the metacarpus and fingers are broken.

Gentlemen, you will sometimes observe that, almost every thing is effected by the relaxation of certain muscles, or by position, without splints, which, in some of the examples to which I allude, could not act either directly or effectually on the fracture. For instance, in fractures about the shoulder, affecting the scapula or clavicle, the treatment is conducted altogether without splints. Then, in certain other cases, splints are indeed used, not as a temporary substitute for the bone, nor as a means of giving support and steadiness to the part for a time, but for the sake of keeping the limb in a particular position. Thus, in fractures of the neck of the thigh-bone, splints are used, not to support that particular part of the bone, but to maintain the limb in a determinate posture. In fractures of the patella and olecranon, the same fact is illustrated: in these cases, splints are not employed on the principle of affording lateral support, as in a common fracture of the thigh or leg, but to retain the limb in a particular posture. Here splints could have no direct action on the fractured part.

Besides bandages, pads, compresses, and loops of tape, other contrivances form parts of the apparatus for fractures, as, for instance, what is called the *double oblique plane,* which I will show and explain to you when I come to fractures of the femur. On the double oblique plane, the lower extremity may have the advantage of the bent position though the patient lies on his back: it is often used for fractures of the neck of the femur, and is sometimes preferred in the treatment of oblique fractures of the shaft of that bone. The *foot-board* is a very essential part of the double oblique plane, as without it the limb would receive but indifferent support. In general, the foot-boards of the best double oblique planes are so constructed, that their situation and the angle of them can be altered and regulated according to circumstances. *Fracture-beds,* or beds invented expressly for the accommodation of patients with bad fractures, *fracture-boxes,* and contrivances to keep off the weight of the bed-clothes, called *fracture-cradles,* are other mechanical aids sometimes resorted to. Thus, in fractures, when much inflammation exists, the patient frequently cannot bear the weight of the bed-clothes; and then the cradle is found convenient. Common beds, intended for the reception of patients with fractures, should have hard unyielding mattresses upon them, and not soft feather-beds, which soon sink in the centre, and not only have an unfavourable effect on the patient's posture, but render his condition very uncomfortable. Fracture-beds are now brought to great perfection; and when the patient is likely to be confined for a long time with a severe compound fracture, I would recommend him to be accommodated, if possible, with a fracture-bed, which will enable him to obey the calls of nature without any disturbance of his body or limbs, and which, if necessary, may be converted into a double oblique plane. It also allows the head or chest to be raised or lowered without the slightest disturbance of the fracture, or any effort of the patient himself, who may even be inclined to either side, if such posture be required, in an equally quiet manner. Fracture-beds afford, indeed, great comfort to patients who are likely to be long confined by bad fractures, either of the limbs, spine, or pelvis. The *fracture-box* is intended to hold the limb securely and steadily, with the assistance of cushions and pads; it consists of a bottom-piece, two sides, and a foot-board; a soft cushion, or pad, is laid along the bottom of it, and the lateral pieces, which have hinges, and are fastened with straps, are also kept from hurting the integuments with soft cushions or pads, calculated to fill up the interspace between them and the limb. This contrivance is sometimes used in fractures of the patella, for maintaining the limb in the proper position, though there are other plans which may be adopted. I will show you the principal mechanical contrivances, resorted to in the treatment of broken bones, when I am on the subject of particular fractures.

Gentlemen, I now come to the consideration

of the *process by which broken bones unite.* A solution of continuity in the soft parts unites with wonderful quickness, the cure by adhesion taking place in a few hours. The process of union in bones is slower and more complicated, nature requiring a longer time for the reparation of a fracture, than for the union of a wound, and the process not being, in the first case, so simple, clear, and manifest. You will immediately suspect this, when I tell you, that, even at the present day, with all the assistance of experiment and actual dissection, different statements and theories are advanced by different authorities. A few years ago, lecturers on surgery got over this subject very easily, and those teachers, whom I happened to attend, explained the matter in a concise and summary way, by stating that the only difference between the union of bone and that of soft parts, was, that the coagulating lymph, effused between the ends of a fracture, gradually acquired the consistence of cartilage, earthy matter was deposited in it, and thus the bone was united, and acquired its former strength, the only particularity being in fact the deposition of phosphate of lime as the uniting medium. But, even before the time alluded to, a considerable progress had been made in the investigation of the process by which broken bones unite, and great merit is due to Du Hamel for the success with which he examined this part of surgical pathology. After making numerous experiments to ascertain the steps adopted by nature in uniting broken bones, he inferred, that the periosteum and the medullary membrane were the sources of the new bony matter, or *callus*, as it is called, or of the substance which was the means of union. The periosteum and the medullary membrane, he considered as the exclusive organs of ossification. He maintained that, in the process by which a broken bone is united, the periosteum, covering the end of one fragment, grows to that of the other, and then swells and forms a rising round the fracture. In the swelled portion of the periosteum, he described vessels as becoming developed, and depositing specks of osseous matter, which formed a kind of osseous ferule, or hoop, directly round the fracture. Now, this explanation, as far as it went, agrees with later observations, and especially with those made with so much care by Baron Dupuytren. Besides the changes leading to the production of the *external callus*, Du Hamel found, that the medullary membrane was not inactive, but contributed its share in the promotion of union in nearly the same degree as the periosteum. One error in Du Hamel's theory, however, was the supposition, that the bony ferule would permanently remain, and always be found afterwards as the bond of union. You will hear it occasionally asserted, that the periosteum is exclusively the organ of ossification. Without entering into a minute consideration of the objections to the latter opinion, be it sufficient to say, that callus, or new bony matter, is often produced in parts where the periosteum is totally destroyed; and it is well known, that the patella may be united by bone, although it is not furnished with a periosteum at all; it is true, that it rarely unites by osseous matter, when broken transversely, but when it is fractured by external violence, or in the longitudinal direction, osseous union is not an uncommon result.

Bordenave having had an opportunity of examining a bone that had been formerly broken, and long united, and, finding no bony ferule in the situation of the previous fracture, conceived that Du Hamel had been mistaken, and he therefore espoused the doctrine, that union is accomplished by the vessels of the bone itself, and that they effuse coagulating lymph between the ends of the fragments, which lymph is first converted into cartilage, and finally into an osseous consistence. Baron Larrey also rejects the theory which maintains, that the periosteum is the organ of ossification, and he adverts to examples, where, although portions of the cranium had been removed, and the pericranium had been destroyed to a considerable extent, nature made considerable efforts to repair the loss. In young subjects especially such efforts may indeed accomplish a great deal, and, I think, we must acknowledge, that the facts and arguments brought forward by Larrey, amount to a refutation of the opinion, that the periosteum is exclusively the organ of ossification. Mr. Liston of Edinburgh, I observe, distinctly states, that he has never seen new bone connected with the periosteum, either in fractures or necrosis, but this is a declaration, which does not appear to me to coincide with what experience reveals to us; a point, however, on which I will speak more fully when I come to the subject of necrosis. The experiments of Dupuytren, Villermé, and Breschet prove, that all the doctrines, to which I have adverted, are too limited; for, whenever a bone is broken, the soft parts around the injury are more or less contused and torn, and it is alleged, that not only the periosteum and medullary membrane, but also the soft parts around the fracture, the cellular tissue, and muscles, or rather their vessels, are concerned in repairing the injury of the bone. It was found, that when the ends of the fragments were kept steadily together, they became surrounded by a swelling and a subsequent ossification of the soft parts, and that, in this manner, a kind of external case was formed to include and support the ends of the bone. This first production corresponds with Du Hamel's bony ferule; for, as I have said, he noticed that a sort of bony hoop is produced around the fracture. Dupuytren calls this hoop or ferule the *provisional callus*, because it is only a temporary production, and is absorbed as soon as it has fulfilled the purpose for which it is designed, namely, that of acting as a splint, or means of support to the broken part of the bone, until nature has had time to bring about a more

complete and direct union of the ends of the bone themselves.

In the *first stage*, then, of the union of a fractured bone, comprising a period of about ten days, there is merely a swelling of the soft parts around the fracture; and, on examination of the limb in the dead subject, the swelling appears to consist of a reddish substance, as would seem from the quantity of blood effused. The swelling is greatest or thickest opposite to the fracture, and gradually diminishes above and below the injury, till it is completely lost in each of these directions. About the *tenth day*, the redness has disappeared, the blood being now absorbed, and coagulating lymph effused. At this time, a reddish vascular spongy substance is formed between the ends of the bone, which substance is not itself of an osseous nature; but in the swelling, around the fracture, specks of bone now begin to be deposited, a change, or new action, characterising the beginning of the *second stage*, which extends from the tenth until the twenty-fifth day. During this second stage, then, the effused lymph on the outside of the fracture becomes ossified; it first assumes a fibrous structure; it then becomes cartilaginous; and by degrees calcareous matter is deposited in it. In the meanwhile, similar changes are going on in the medullary membrane, so that, in the process of union, nature is labouring without and within the bone to give it a temporary means of support, and steadiness, while the principal and permanent work of ossification is as yet only preparing for commencement.

But, gentlemen, you should know that, in the second stage, the bone is still capable of partial flexion, and a degree of motion; for the ends of the fracture are not yet consolidated. The internal and the external, or provisional calli, alone hold them together.

Gentlemen, the preparation, which I now show you, illustrates some of the circumstances I have mentioned: it is the section of the femur of a boy who died in the fourth week after a fracture of the tibia, and therefore about the end of the second stage. You may see the external provisional callus, or, at least, the remains of it (for some of it has been destroyed by maceration); and you may notice the ossification which was going on in the cavity by means of the medullary membrane. You may likewise observe, that there is no kind of union yet established between the ends of the bone. It seems, that some portions of the new bone have been broken off by the saw, and some other portions destroyed, as I have said, by maceration; had it not been for these accidents, the preparation would have been a particularly valuable one. The next preparation is a section of the femur, exhibiting the effects of inflammation about the ends of the fracture, which have a rough, porous, spongy appearance.

Let us now consider the *third stage*. You see, gentlemen, that the union of a broken bone is rather a complicated process. The third stage extends from the twenty-fifth day to the end of the sixth or eighth week; during this period, the external swelling becomes completely ossified and quite firm; the internal medullary membrane undergoes the same change; but the ends of the fracture are not sufficiently united, and the bone is only strong from the support received from the external and internal calli. The ends of the fracture themselves are not yet consolidated directly together, and the bone may still be broken again by any violence or weight applied to it in a careless way; for, at this period, its only strength is derived from the external and internal provisional bony formations.

The *fourth stage* extends from the sixth or eighth week to the end of the fifth or sixth month, during which time the external or provisional callus has become completely ossified, and even covered with periosteum. The ossification of the medullary membrane is also perfected; and the ends of the bone themselves being now truly united to one another by bony matter, the former solution of continuity is hardly distinguishable.

The *fifth stage* reaches from the fifth or sixth month to the twelfth. During this period, the external provisional callus is absorbed and removed, and the direct union of the fragments is so strong, that it would be as difficult to break the bone in the situation of the former fracture as in any other place. This preparation is a section of the femur of a person who died several years after the reparation of the injury, and you see how effectually the mischief has been repaired; all irregularities are smoothed away, and the medullary cavity is restored. For you should understand that, for a certain time after the injury, the medullary cavity is filled up by a kind of internal provisional callus, obliterating, as it were, the cavity of the bone. These final changes take place in the interval between the sixth and the twelfth months: then all irregularities are removed; the external callus is absorbed; and the medullary canal restored. When the two ends are not properly in contact, but only touch laterally, union still takes place; but the provisional callus is then the *definitive* one, as Dupuytren calls it, for no other is formed; it unites the fracture permanently. The preparation, which I now show you, illustrates the observation which has just been made; there is no internal nor any kind of definitive callus, producing a direct consolidation of the ends of the bone in a case, like that from which the bone before us has been taken.

In the Hunterian collection at the College of Surgeons, you will find a bone that is united in such a way, that a portion of the medullary cavity is turned outwards instead of inwards, a large splinter having been entirely detached: yet union took place. Long splinters and fragments frequently unite, but they sometimes perish, and fall into the state of necrosis. Ob-

serve this radius,—it has been broken in two places by a gun-shot wound; yet the intervening fragment, which has been quite separated, and even displaced, has acquired an osseous union to the rest of the bone.

CLINICAL LECTURES

DELIVERED BY

DR. WILLIAM STOKES,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE III.

Pathology and Treatment of Gastritis—Dyspepsia—Liver Disease, Pneumonia and Pectoral Complaints mistaken for it—Diagnosis—Treatment illustrated by Cases.

Gentlemen,—As there are at present in the hospital some cases illustrative of the pathology of gastritis, I wish to draw your attention to this subject to-day. You are all, of course, aware that, in modern times, numerous and important advances have been made in the knowledge and treatment of gastric affections, and that an enormous mass of facts has been accumulated of the deepest interest to practical medicine. It is, however, an unfortunate circumstance, and calculated to excite much surprise, that a knowledge of the various forms of this inflammation is not sufficiently spread among British practitioners. There is still a great deal of ignorance and misconception on this subject; many persons are still accustomed to take a limited and superficial view of it, and a thorough acquaintance with the various modifications of gastric disease is at the present day any thing but general. At one time we hear it called disease of the liver, at another time dyspepsia, sometimes it is termed constipation, and sometimes derangement of the digestive organs. It is true, that in such cases we find constipation, dyspepsia, and derangement of the digestive organs, yet these terms, as they are commonly employed to designate the disease, are at once both useless and improper, because they convey no correct or pathological idea. We owe, I think, to Broussais a great deal of our knowledge of gastric and enteric inflammation; it was his researches that gave the first clear and luminous view of a class of diseases previously obscure and little understood. He failed, however, in procuring the general assent of the profession to the propositions he advanced, and one of the principal reasons of this failure, and of the partial diffusion of the knowledge of gastritis in this country is, that although he brought forward a great number of valuable facts, he also promulgated a theory which has not been clearly or successfully proved. This theory has been rejected, and with the theory British practitioners rejected his facts. Thus it is, that by drawing too much on the imagination we do a serious injury to our own credit, and retard the progress of medical science. The error of Broussais will be a useful lesson to any person who is disposed to indulge in speculations, it will prove to him that the appendage of an ill-sustained theory will cause the rejection, for a time at least, of the most important facts, and tend, by the indifference which it creates, to arrest the march of improvement.

Gentlemen, we have had no acute cases of gastric inflammation of late in our hospital wards, but there are two cases of chronic affection of the stomach, on which I purpose to offer a few remarks. The first is the case of a man in the chronic medical ward. This man is from the country, and is at present labouring under an affection of the stomach, exceedingly common among the Irish peasantry. I have seen a great deal of it in the course of my own practice, and any person residing in the country, if he happens to be a medical practitioner, must have been repeatedly called on to treat this form of disease. At least persons, who labour under it, are chiefly of that class who live a good deal on potatoes, and I am inclined to think this exclusive diet must have some share in its production. Most of those, who come into hospital with this complaint, are from the country, particularly persons whose circumstances have been impoverished, and who consequently have been compelled to change their former nutritious and better food for a potato diet. In such cases, we generally find those persons able to date the commencement of their illness from a period (immediately) subsequent to this change, and it is therefore not improbable that the change of diet has some influence in the production of this peculiar gastric affection.

The patient, who is the subject of the case before us, is somewhat reduced in flesh and of a sallow complexion. He has complained of pain in the region of the stomach, extending to the back, right hypochondrium, and shoulder. He has had tenderness over the epigastrium, loss of appetite, pain and sense of distension, increased after eating; vomiting of yellow matter occurs two or three hours after taking food, succeeded by thirst. His pulse is soft and slow; tongue clear; bowels open. His illness (and this, I think, is a point worthy of remark) commenced four years ago with pain in the stomach, increased by eating and relieved by vomiting; and some time after this the vomiting began to be succeeded by thirst. The vomiting generally came on in an hour or two after taking his meals, and he threw up a quantity of yellow slime. Another important point is connected with the treatment he has undergone for this disease. He has been relieved by antiphlogistic treatment, locally employed; we treated him since his admission by leeching, blisters, and cupping over the stomach, and latterly he has been using narcotics. Ninety-nine persons in a hundred would be inclined to call this a case of dyspepsia, and so it is so far as loss of ap-

petite and derangement of the stomach are concerned, but the worst of the thing is that they would look at it only in a single point of view, and treat it as mere nervous disease of the stomach. Well, with respect to this man's case, it is either a chronic gastritis, or it is a nervous affection, and mere dyspepsia. Before we proceed further, let us see what is the precise meaning of these terms. Dyspepsia is a name given to that condition of the stomach, in which, without any sensible alteration of structure or circulation, the stomach does not perform its functions in a regular and proper manner, but there is no organic lesion; and if a man, labouring under simple dyspepsia, were to die, we could not detect any change in his stomach, so far as circulation and structure are concerned. Chronic gastritis is a lesion of the stomach, with a change of its circulation and a thickening of its lining membrane, or, in other words, with signs of actual disease in the stomach. Now, in my opinion, there is a great probability that this affection, which is so frequently observed among the peasantry of this country, is a chronic gastritis. It may, I grant, commence by dyspepsia, but, in its advanced stage, and it is only in this stage that such cases come under the care of medical men, it is most commonly a chronic gastritis. We have had, it is true, no post-mortem examinations of this disease, and can, therefore, only reason on probabilities, but if we look to that form of treatment which has been found most successful in affording relief, we find it to be that which is calculated to remove irritation and vascular excitement. Besides, the antidyspeptic treatment has failed, after extensive and repeated trials. In fever this gastritis is of very common occurrence; and here also it is most advantageously met by local antiphlogistic means. But there is another circumstance which you should always keep in mind: by the time you get persons labouring under this gastric affection to come and place themselves under your care, they have been ill for months, and perhaps years. The disease is certainly at this time very chronic; and you are aware that it is a general pathological law, of the truth of which we have the most ample proof, that where an organ has been long subject to functional derangement, there is a strong probability that more or less of organic change has also taken place. We seldom see the brain, or the lungs, or the kidneys deranged in function for many years without more or less of structural alteration; and we may conclude that any viscus, in which functional disorder has existed for a considerable period, will ultimately experience organic change. If, then, we connect with these facts the failure of the antidyspeptic plan and other circumstances, we are led to infer that these and similar affections are cases of chronic gastritis. I do not say it is so exactly, but I think the collateral proofs are very strong in favour of its existence.

Well, what have we done in the present instance?—We have endeavoured to regulate the man's diet; we have cupped and leeched the epigastrium, and afterwards employed counter-irritation. In all cases of a similar nature our treatment has been nearly the same; in most it has been followed by permanent relief; but where this did not occur, and the patient complained afterwards, we have had recourse to narcotics. This man has been latterly taking, with the most signal benefit, the eighth part of a grain of acetate of morphia twice a day. You will see in Dr. Bardsley's Hospital Facts and Observations that the acetate of morphia has been employed with singularly good effects in the treatment of gastric affections; and where its use has been preceded by leeching I have a full conviction of its value, as well as that of various other narcotics.

There is, gentlemen, another case,—that of the patient Denham, who has been complaining of pain and tenderness in the epigastrium, with loss of appetite, and intolerable thirst. His face and extremities are œdematous, urine not albuminous, bowels confined. His tongue is red, and thickly coated with fur; his illness commenced two months since. I looked on this as a case of chronic gastritis; for, you observe, he had all the symptoms, pain, tenderness of the epigastrium, red tongue, impaired appetite, and an insatiable desire of cold drinks. We treated him by leeching and blistering the epigastrium; we gave no purgative by the mouth, but obviated the costiveness by enemata. By this treatment much good has been effected. Since the leeching and blistering his thirst, which was so excessive that I thought at one time he had diabetes, has completely declined; his tongue is much improved, and he no longer complains of any gastric pain. His appetite, however, continues bad; and it will remain to be seen by the progress of the case whether this depends on want of tone in the stomach or actual disease.

In submitting these cases to your notice, it may not, perhaps, be irrelevant to make some observations on the pathology of gastritis in general. Many circumstances tend to prove that chronic gastritis is a very common disease. Although not admitting of direct proof, I think it is also true, that where dyspepsia has lasted for a long time, there is more or less of gastric inflammation. Nothing is more common than dyspepsia; and hence, in all probability, chronic gastritis is common also. We are not, however, to go the whole length with Broussais, and give the name of chronic gastritis to every case of dyspepsia which comes before us. Broussais is too much of a solidist,—he refers too much to the mere visible alteration of organs, and his idea is, that every case of dyspepsia is a case of gastritis; that there is scarcely such a thing as mere nervous dyspepsia; that all instances of this kind are only various forms of gastric inflammation, and to be treated as such.

Here it is evident that theory has led him astray; for that this notion is incorrect has been proved by the circumstance that several cases of dyspepsia have been relieved by treatment not calculated to remove inflammation. We every day see cases of dyspepsia deriving the most decided benefit from the use of stimulants, wine, and a generous diet; and where this occurs, who is there that would venture to call them chronic gastritis? But although we do not go the whole length with Broussais, and justly reject the speculative part of his doctrines, still we owe a great deal to his industry and research: he has brought forward a multitude of valuable facts which were formerly but little appreciated or understood; and when you are called on to treat a case of dyspepsia, I think you should take the greatest pains to ascertain whether it be chronic gastritis or not.

The next thing I have to remark is, that it is extremely difficult to make out the diagnosis of chronic gastritis; we do not know one symptom which would enable us to draw a line of distinction between dyspepsia and chronic gastritis. You will read in books a minute detail of the symptoms by which they are separately characterised, and will think yourself capable of making a diagnosis; but when you come to practise, even in an hospital, you will find the affair involved in very great perplexity. Another thing is, you will have all the symptoms and causes equally prominent in the early stage of both. I have often stated, that if I were examined on this subject, and required to give a diagnosis between gastritis and dyspepsia, I could not tell the diagnosis. The truth is, their symptoms are identical. In chronic gastritis there is no fever, and the pain, flatulence, distension, acidity, loss of appetite, &c., are the same in both. I feel convinced that chronic gastritis is very often confounded with dyspepsia by British practitioners. It is treated as disease of the liver by blue pill and black draught; it is treated as dyspepsia by tonics and stimulants; it is treated as constipation by drastic purgatives. Constipation arises from a variety of causes, frequently from inflammation of the upper part of the tube. Now, observe the result of mistaking chronic gastritis for any of these three complaints. If it be taken for dyspepsia, it must certainly be increased by the tonics and stimulants which form the great bulk of antidyspeptic remedies. Run over the whole class of antidyspeptic remedies, and you will find them to consist chiefly of powerful stimulants. If it be treated as disease of the liver, of course blue pill is given, but what is the consequence? The liver is stimulated, and there are copious bilious discharges; but the true cause of the disease, the gastritis, is wholly neglected, and, by neglect, becomes certainly worse. It will be also neglected, and even much exacerbated, if taken for constipation and treated as such. How are you to make the distinction and steer clear of error where your course is obstructed by so many difficulties? Recollect the rules which I have before given on this subject. If the disease is chronic, the probability is, that there is more or less of gastritis in it, and the more chronic it is the stronger is that probability. In the next place, when patients apply to you for advice they are generally a long time ill, and have gone through several courses of antidyspeptic remedies. Now, if you happen to get a patient who has been treated for months, or even years, with blue pill, bitter tonics, and stimulants, and find that he is rather worse than better, you have two data to go upon; your diagnosis will therefore be more likely to be formed safely and accurately, and your treatment successful.

There is one circumstance connected with the state of the tongue in diseases of the mucous membrane of the stomach and bowels, which I feel myself called upon to notice in speaking of chronic gastritis. I mention it because there is a good deal of misconception on the subject; and it is a curious thing, that the British school and Broussais, holding as they do opinions so discordant, should unite on this one point, that is, in looking on the tongue as an unequivocal indication of the state of the digestive tube. Now, this doctrine has been completely overturned by the researches of the pathological anatomist; at least so far as this, that any one who is a pathologist will not modify or adopt any particular line of treatment from the mere appearance of the tongue. It has been proved that there is no constant relation between the state of the tongue and stomach; no visible alteration in the condition of one giving unerring indications of some particular affection in the other. This is a fact, and yet I believe it is not admitted or attended to by many. It has been clearly proved, that we have no particular modification or appearance of the tongue corresponding with a special modification of the stomach. It has also been shown, that we have no particular state of the stomach coinciding with fixed appearances of the tongue. It is well known to every clinical observer, that with ulcerated stomach we have the tongue pale, or red, or white, or black, or any other colour it may assume. Again; it is also undeniable, that a morbid state of the stomach may exist, nay, that there may be very extensive ravages in that organ, with a perfectly healthy state of the tongue. Bear this in mind; I wish to impress it upon your attention, because when a patient labouring under any gastric affection applies for medical advice, it is a kind of *sine quâ non* to make him put out his tongue, and if it be red, or dark, or pale, or loaded, the practice is arranged accordingly. But are we to neglect the appearance of the tongue entirely in the process of such complaints? No; we look to the tongue and examine its condition, but we do not form our diagnosis or regulate our treatment by any of its peculiar aspects. We con-

sider the appearance of the tongue chiefly with respect to the state of the whole system. The appearance of the tongue in fever is also of importance, as illustrative, not of any peculiar affection of the mucous membrane, but as a kind of index by which we arrive at some knowledge of the condition of the general system.

You will ask me, perhaps, would I never employ tonics in the early treatment of dyspepsia? To this I will answer—never, in case it should be combined with gastritis. Here, however, I must remark, that Broussais has gone too far in restricting such cases to a pure antiphlogistic treatment throughout, for I believe there is a period when such treatment will do no good. When we have completely removed all irritation by the former plan, I think we may then have recourse to tonics with decided benefit. When we consider the curative action of tonics, stimulants, and bitter medicines, in the treatment of the majority of diseases where they are employed, we find that they are most efficacious and successful when preceded by a judicious antiphlogistic treatment. We shall see more of this as we proceed.

There is another case which I wish to notice: it has been, I believe, one of an acute character; I allude to that of the man in the Fever Ward. This person, after committing an excess in drinking, got sickness of stomach and vomiting. In your investigations of any case which comes before you, it is of importance, towards forming a correct diagnosis, to hold these two things in view,—the exciting cause, and the first symptom of disease. Here you have, in the first place, excitement of the stomach from the use of spirits, and afterwards irritation, manifested by the vomiting. This was followed by loss of appetite, constipation, pain in the lower part of the left hypochondrium, foul tongue red at the tip, symptoms which indicate irritation of the mucous membrane of the stomach and intestines. When he was admitted into the hospital, however, what he chiefly complained of, and what were certainly the most prominent symptoms, were tightness across the chest, great difficulty of breathing, and harassing cough. His cough was indeed very severe, his sputa slightly tinged with blood, his breathing very much accelerated, and, to a superficial observer, he would appear to labour under chest disease. But, remark, we found out that he had been complaining of these symptoms for about three weeks, and consequently, if they had been pulmonary symptoms, they must have proceeded to a very alarming extent in that time. Mr. Lees examined him by percussion and with the stethoscope, but could not detect any disease of the lungs, and he was examined by myself on the next day with the same result. Moreover, the patient had been previously treated for pulmonary disease without success. We were, therefore, led to conclude that there was no original disease of the lung, but only sympathetic irritation, depending on gastritis. We took small quantities of blood from his arm, leeched the epigastrium, kept his bowels open by enemata, and under this treatment we saw all his symptoms disappear, as it were, by magic. This is a remarkable case, giving us an illustration of the manner in which gastritis may simulate other diseases, and exhibiting the importance of attending to the exciting cause and first symptoms of a disease in order to arrive at a correct diagnosis. Here you see it putting on the semblance of pneumonia, in other cases it assumes the guise of encephalitis. It was remarkable, that the bleeding and leeching increased rather than diminished this man's strength, for after their employment his prostration nearly disappeared. You will see a great many of these cases in the course of practice, where the primary mischief is masked by a train of prominent sympathetic phenomena, and in which your diagnosis is to be founded on the following circumstances. These persons labour under a kind of fever; there is generally severe harassing cough, and respiration is considerably accelerated; their symptoms have been of several days' duration, and when you examine them with the stethoscope, you find that the pulmonary symptoms are not accompanied by corresponding organic lesions, and have not advanced in proportion to their duration. You either find no disease at all in the lungs, or a bronchitis too slight and trivial to account for such alarming symptoms. You next examine the larynx, and finding there no evidence of morbid change, you look for the cause of the cough in the digestive tube, and most commonly trace its existence to a concealed gastritis. If you meet with a case in which violent cough, laboured respiration, and other symptoms of pulmonary disease have existed for a considerable time, without any signs of disease of the lung sufficient to account for them, you may often set it down as a stomach affection, and direct your treatment accordingly. Generally speaking, this simulated pneumonia is most commonly met with in children, but instances of it in adults are by no means rare. Another thing is, if you happen to have tried pectoral medicines, and found them to fail, your diagnosis will be more certain. You remarked the case of a man who was here some time back, labouring under what may be called a tussis firma; well, this was dependent on gastritis. We treated him with leeches to the epigastrium and iced water with most signal benefit. He committed some excess in eating, and had a return of his complaint; he was treated again in the same way, and recovered. I remember having attended a lady some years ago, who complained of some feverishness, with very severe and harassing cough. Not being aware of the nature of the disease, I treated it as a case of fever, with irritation of the bronchi. The fever declined, but the cough continued without amendment; I was much embarrassed by its obsti-

nacy, when one day, happening to be in attendance, the lady remarked that she had been under Dr. Cheyne's care for a similar complaint, and derived much benefit from leeches to the epigastrium. On this hint I acted; the leeches were applied immediately, and my patient's cough entirely disappeared. You will observe this is the point to which I would direct your attention; consider that the diagnosis depends on the persistence of pectoral symptoms; consider that if it were disease of the lungs, it would, in the course of two or three days, produce lesions capable of being easily perceived. But if this be the case, and you look in vain for any organic change to account for such excessive cough, you will seek for its cause elsewhere, and refer it to sympathetic irritation, produced by disease of some other organ, and this is most commonly the stomach. In connexion with this, I have to notice a very interesting fact in the pathology of gastritis. In such cases as the above, you will generally find but little direct evidence of gastric irritation. The patient has no vomiting, he complains of very little pain, and the epigastric tenderness is very slight Here is the law by which such affections are regulated. In those cases in which the sympathetic irritation is most strongly marked, the usual or local symptoms of the disease are least apparent. We see cases of this kind apparently consisting of chest disease, and sometimes even assuming the appearance of cerebral disease, or tetanic symptoms, while the true signs are completely masked. You will find in Andral's work, a remarkable case of this kind, in which the ordinary symptoms of fever, vomiting, pain, and epigastric tenderness, continued for a few days, when tetanic symptoms set in, and immediately those which were indicative of gastric irritation disappeared. But we are not to be deceived by the supervention of sympathetic irritation manifesting itself in other organs, nor are we to suppose that the gastric affection has subsided because we have an imposing train of symptoms existing in other parts. As long as the irritation continues, no matter in what organ it appears, we have strong evidence that the disease, though lurking, is still unsubdued. It is of importance to bear this in mind when you come to treat cases of sympathetic irritation depending on gastritis. If you treat them as pulmonary disease, as any superficial observer, or any person unacquainted with the use of the stethoscope would be liable to do, your mistake will be, indeed, a very serious one. In the first place, the gastritis will inevitably be increased by being neglected. In the next place, though the internal remedies which are ordinarily employed for the removal of pulmonary affections, as tartarised antimony, squill, and other similar means, obviously produce the worst effects in gastric disease, and must tend materially to its exacerbation, so that there are in such instances two sources of exasperation, one arising from neglect, the other from the employment of therapeutic means which are totally contra-indicated by the nature of the disease. Remember, therefore, that where there are violent symptoms of disease of the lungs, and where these have gone on for several days without any proportionate lesion of these organs, that you may look for their cause and origin in a concealed gastritis. Recollect also, that in such cases the gastritis may be nearly latent, and want most of those symptoms by which it is generally characterised. This subject is an interesting one, and I would follow it up, but as I perceive my time has expired, I will defer until our next day of meeting the few additional observations to which I wish to call your attention.

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

At St. Thomas's Hospital, March 26, 1833.

Intermittent Fever, large doses of Bark—Acute Pleuritis supervening on Chronic Bronchitis—Paraplegia—Synochus.

THERE have been four cases discharged from my patients, gentlemen, since we last met here; three men and a child.

Of the men, one was a case of ague, one of acute pleuritis supervening on chronic bronchitis, one of paraplegia from cold; the child's was a case of synochus.

The case of ague occurred in Michael Cunnington, aged about thirty, admitted into the hospital February 13th. He stated that he had been the subject of ague for three weeks; until the last five days the paroxysm had come on every other day, but during the last five days it had come on every day, and nearly at the same time, about eleven or twelve o'clock in the day. About the time of the occurrence of the fit, had severe pain in the head, but none during the intervals; no pain on pressure in the region of the liver or spleen; tongue white; bowels rather confined; great debility.

When brought to the hospital, he was in the middle of the cold fit, shivering most horribly, and I ordered him to take immediately, in the apothecary's shop, whence he was first brought, tinct. opii ♏xxx; spt. ammoniæ aromat. ʒj; mist. camph. ʒij; to be then put into a hot bath, and afterwards carried to a warm bed. In half an hour afterwards, I again saw him when in bed, and found the hot stage come on; he complained of pain in the head, but not of more than he had been accustomed to on each previous attack. I directed five grains of calomel to be given directly, with half an ounce of castor oil, for the purpose of emptying the bowels, and five grains of the sulphate of quinine every six hours afterwards, and ordered him a milk diet. The castor oil and calomel moved the bowels but slightly, probably the opium he had taken prevented its acting more freely;

the motions were dark-coloured. The next day at the usual time he experienced slight chilliness and languor, with some headach, but had no regular paroxysm. The quina was continued, and he was directed to take in addition, pulv. rhæi c. hydr. ℈j., alternis diebus.

He continued under this plan of treatment until the 23rd, having had no recurrence of ague since the first day of his admission, and I was about to discharge him, when he told me he had had an eruption on his body for some time. On taking off his clothes, I found a papular eruptive lichen over the whole of the trunk, arms, thighs, and legs, of a very coppery coloured appearance, and being decidedly syphilitic; he stated that he had been the subject of it for twelve months, and that it first appeared three weeks after he had been cured of a gonorrhœa, which he at that time had contracted; he admitted, however, that six months ago he had a chancre, of which he was cured in the Leicester hospital, that he took mercury for it there, but that his mouth was only sore for four or five days; the eruption felt rough to the touch, and he said that latterly it had been getting worse.

The quina was then omitted, as there was no longer any occasion for it, and he was directed to take five grains of the blue pill twice a day, with a pint of the decoction of sarsaparilla daily. The mercury soon affected the mouth, and it was then for a time abandoned, and then repeated in such quantity as to keep the system under its influence for about a month; the eruption faded; his general health improved, and he was discharged on the 21st, well, there being nothing more than some discoloration of the skin in the patches where the eruption had appeared.

Soon after he began the mercury, he had a small pustule on the tunica conjunctiva of the left eye, near to the inner canthus, but which quickly got well, by simply dropping into the eye, night and morning, one drop of the vinum opii.

Now, in this case I was unable to ascertain, from the account he gave of himself, that he had been lately exposed to malaria, neither is it at all necessary to account for the present attack; it appeared that he had been some time before in a district where ague is prevalent, and no doubt the impression was then made, but his system was then in such a condition as to enable him to resist it, and the disease did not manifest itself, though the impression of the poison still remained, wanting only some favourable change in the constitution to rouse it into a state of activity; this change did take place, and from circumstances most likely to excite it from its latent condition; he was exposed to rather severe privations, calculated to depress his moral and physical powers, and at the same time he was also exposed to the more potent effects of cold and moisture; in this instance, the malaria to which he had been previously exposed, only acted as the predisposing cause, the privations and the exposure to cold then acted as the exciting cause. Now we see the same take place with other specific poisons. A person is bitten by a rabid dog, he continues well for weeks, months, nay years; on a sudden, however, the hydrophobic symptoms manifest themselves, not from fresh application of the poison, but from some circumstance, some peculiarity with which we are unacquainted, acting as an exciting cause, and all the horrid symptoms are speedily developed.

I have seen myself several instances of individuals exposed for a time to malaria in aguish countries, and apparently with impunity, but in whom the disease has manifested itself at a distance of many weeks after their return to London, on being exposed to an east wind with moisture. Dr. Bancroft has mentioned examples where the disease did not occur until nine months after the exposure to malaria. There is often a disposition in intermittent fever to change its type, as it is termed, that is, for the quartan or tertian to become quotidian, and vice versâ; and when in this way the interval is diminished, the disease commonly assumes a severer form, and the patient's health suffers more.

It is said that it is more common for the quotidian to pass into the tertian or quartan than the contrary; but I cannot say that this accords with my own experience; I think I have seen more tertians become quotidians than the contrary, and the same with respect to quartans.

In the present case you observe this change of type; for more than a fortnight it was tertian, it then became quotidian, and continued so; while it was tertian, the paroxysm came on at a later period of the day, but when it changed to the quotidian type, then the paroxysm came on earlier, about ten or eleven o'clock in the forenoon. Now, this is a circumstance which commonly denotes an increased severity in the disease; I mean that it is usually more intense when each succeeding fit comes on at a somewhat earlier hour, while, on the contrary, the severity may be considered as decreasing, when the hour of accession is from day to day postponed to a later period, and the cure is more quickly effected. Well then, with respect to the treatment adopted in the present case. You will recollect that when he came to the hospital, he was in the middle of the cold stage; he was "shaking out," as it is called; the teeth chattered, the countenance had the true dirty straw-coloured hue, so characteristic of ague; his mental faculties dull and listless; his corporeal almost powerless; his tongue and mouth dry; his respiration short and slow; the surface of the whole body cold, so cold as to be sensibly many degrees below the natural temperature, while the skin was rough and constricted, exhibiting what is called goose skin; the pulse was feeble, though at the

same time very quick; it is said, that the pulse during this stage is sometimes slow, I dare to say it may be, but I have seen some hundreds of cases of ague in the course of my practice, and have invariably found it quick, often 140, and occasionally from ten to twenty beats in the minute quicker.

Now, during the cold stage the suffering of the patient is very great, and therefore it ought to be our object to shorten this stage as speedily as possible, and bring on the hot stage; it was with this intention that I prescribed the aromatic spirit of ammonia with opium and camphor mixture; other diffusible stimulants would have done as well as the ammonia, brandy, for example; but it was not then quite clear whether or not there might be any tendency to inflammation in any internal organ, if there was, ammonia would be the softer of the two, and therefore I employed it; opium again is a remedy which has been generally admitted as having the power of shortening the cold stage; often if you give a full dose, say from forty to sixty minims, two hours before the expected accession of the paroxysm, it may be prevented; and when given during the paroxysm, I mean during the cold stage, I have commonly found it shorten it, for this reason I combined it with the ammonia. Dr. Lind, many years ago, stated that it is more beneficial when given in the hot stage. That when so given diaphoresis takes place more quickly, of course the duration of the hot stage is lessened, and visceral congestions or inflammations are less likely to occur. I cannot speak of this practice from my own experience, I have always been afraid of giving opium during a period of so much excitement. The camphor mixture was merely a vehicle for the ammonia and opium; but still it was a vehicle possessing some slight, though very slight, degree of stimulating power. It must be obvious, too, that whilst we are endeavouring to restore the circulation of the vessels of the surface of the body, by means of stimulants given internally, that heat applied externally must be a powerful additional means of effecting this purpose; and therefore I ordered him, directly after he had taken the ammonia and opium, to be put into a hot bath, and then to be placed in a hot bed. Some prefer the hot air bath for this purpose, and I have used it myself with great advantage, though I cannot say with greater than the hot water bath;—of course, under such circumstances, it is used as a stimulant, and the water should be as hot as the patient can bear it.

Well, then, the ammonia, opium, and hot bath answered fully my intention; the cold stage was stopped, and very shortly after he had been put into a warm bed, I found, on visiting him, that the hot stage had come on.

Now, you must remember, that up to this time the treatment is only to be considered as palliative, merely resorted to as a means of lessening his suffering, and not at all with the belief that it would diminish the tendency to a recurrence of the paroxysm. The next step was to effect this, certainly the most important object, and therefore I ordered him five grains of the sulphate of quina every six hours; though, as his bowels were confined, I first gave him five grains of calomel, with half an ounce of castor oil, not as a means of rendering the exhibition of the quina safer, but as a means of clearing out the alimentary canal, and thereby diminishing any tendency to congestion or inflammation in the abdominal viscera, which a loaded state of the bowels would not fail to aggravate;—the purgative acted, but only slightly; but he got down three doses of the quina—fifteen grains, before the time of the ordinary accession of the paroxysm; and then you will observe, that he had no regular fit, he had only slight chilliness and languor, with some headach. It had then degenerated already into what is vulgarly termed "dumb ague," or, "dead ague," a form of the disease which we sometimes meet with, commencing and continuing as such. None of the three stages being well defined; the patient does not shake out, feels merely cold and chilly; yawns; is languid, and depressed both mentally and bodily; and, perhaps, has some degree of goose skin. The hot stage, too, is often still less defined, it has scarcely come on before the sweating succeeds; nevertheless it requires precisely the same treatment as the most intense form of the disease.

He continued to take the quina every six hours for ten days after, and, as I before stated, had no fit, no sense of chilliness after that which occurred on the second morning after his admission. Now, my reason for continuing it so long was, that I might keep up the impression of the medicine on his system for some time, and thus effectually put a stop to the habit of recurrence. You will find this is always necessary; if the remedy is discontinued very soon after the ague has ceased, though the patient feels well, and is to all appearance well, still the disease will in all probability return. In this case ten days was a sufficient time for persevering in it; but if the disease had been more obstinate, or if he had suffered from it two or three months, instead of three weeks, then I should have continued the quina considerably longer.

With respect to the dose of quina, five grains, I gave that quantity because I have found from experience that a very great majority of cases yield to that dose, repeated four times in twenty-four hours. I have no doubt that many would yield to a smaller quantity; but our object is, or ought to be, to cure the patient as quickly as possible, to diminish his suffering as speedily as we can; and I should not feel that I was doing my duty, if, in my endeavour to save a few grains of quina to the hospital, I gave an inefficient dose, causing thereby a prolongation of the patient's suffering, by his being obliged to endure a repeti-

tion of the paroxysm, which a full dose would have prevented. Occasionally you will meet with cases in which this dose is not sufficient, and then you must give it oftener,—every four hours; and sometimes that will not be enough. I remember, some few years ago, having a case in this hospital, a patient of Dr. Elliotson's, but treated by me, Dr. Elliotson being abroad, and which was so obstinate, that I was obliged to give him a scruple every eight hours; and, this not proving sufficient, I combined twelve minims of the liq. arsenicalis with each dose. Still, however, the disease resisted it, and Dr. Elliotson, who returned at this time, was obliged to give it four times instead of three in the day, before the disease was overcome: the additional dose was sufficient. I mention this merely for the purpose of showing you the necessity for increasing the dose under such circumstances, and the utter uselessness of persevering in an insufficient dose. I remember, about four years ago, being consulted by a lady in Wimpole-street, a West Indian, for an intermittent neuralgic affection of a branch of the fifth pair of nerves, which was preceded by slight rigor, and came on every morning at eight o'clock, and lasted till two in the afternoon. She had been sent to Cheltenham, under the idea that it was dependent on hepatic derangement. She was there some weeks; during which the bowels had been well scoured out by the water, with the addition of blue pill or calomel, and leeches were several times applied to the temples and brow. Still the paroxysm returned at the same hour, and as severely as before. Now, three grains of the sulphate of quina, given every four hours, were sufficient to stop the return; and she continued well for more than two months; but, having taken cold in coming one evening from a party, where the rooms were very hot and crowded, it returned the next day, and now three grain doses made no impression on it; but it speedily yielded to five grains every four hours. Well, she again remained well for about three months, when, unfortunately, she was persuaded to visit the Colosseum when the day was cold, and the wind easterly. She was exposed to this at the top of the building for about half an hour; and the next morning the usual rigor and neuralgia returned.

Now, this time, five grain doses were perfectly useless; it was increased to seven, ten, fifteen, but without the slightest effect in preventing the recurrence. I then increased the dose to a scruple every four hours, and it immediately ceased. She remained in this country about twelve months after the third attack without experiencing any repetition, and then returned to Demerara. This is the largest quantity I have given, ʒij daily. It is said in large doses it produces injurious effects. I have never seen any. I have frequently given two scruples, and even a drachm, in the twenty-four hours for days together; and the only unpleasant effect I have ever witnessed has been the patient's feeling a constant whizzing or rushing sensation in the ears; and this I have found as great from five grains as from a scruple.

I believe it is generally considered that one grain of the sulphate of quina is equal to two scruples of powder of the cinchona lancifolia bark; if so, the lady whose case I have just now mentioned, must have taken a quantity equivalent to ten ounces of powdered bark daily.

A much larger quantity, however, even than this has been taken of bark in substance in twenty-four hours. The late Dr. Dunkin, of Torrington-square, who had been on the medical staff of our army for many years in the West Indies, related to me a case of obstinate intermittent fever, which occurred in one of the officers of his regiment, in which the patient ultimately took for many days successively a pound of powdered bark daily, before the recurrence of the paroxysms could be put a stop to. I confess, when I was first told it, I had some difficulty in believing that the stomach could be brought to tolerate such an enormous quantity of woody matter, but a short time afterwards accident introduced me to the officer himself, and the fact was corroborated from his own mouth. The dose of course had been gradually increased until it reached this amount. Chemistry, however, has prevented the necessity of ever again committing such an outrage on the stomach.

With respect to the time of giving the bark, or quina, with the greatest effect in the treatment of ague; formerly it was thought preferable by some to give it immediately *before* the paroxysm, and Cullen, Home, and Heberden were strongly in favour of this practice: very often, however, you will find the stomach, just before the paroxysm, too irritable to bear it well, and it will be rejected by vomiting. Others again have asserted, that it is better to give it in the hot fit; Dr. Clark and Dr. Balfour were of this opinion. My colleague, Dr. Elliotson, thinks that a full dose, ten grains, of the sulphate of quina, given immediately after the paroxysm is the best practice; from my own experience I am satisfied, that by steadily giving a sufficient dose every four or every six hours, not discontinuing it during the accession, that the patient will get well just as quickly as when it is administered only at particular periods, either before, during, or after the attack. I do not mean to say that this is a better mode of prescribing it, I only assert that it is quite as effectual, and as quickly effectual.

In the present case, in addition to the quina, you will remember that, on the second day, I ordered him ℈j. of our pulv. rhæi c. hydr. every other morning; it is very important in ague to prevent any accumulation taking place in the alimentary canal, and which, if suffered to continue, would not fail to increase any pre-existing disposition to congestion or inflammation, either in the intestines themselves or

the other abdominal viscera; purgatives, therefore, are highly useful, nay necessary, and as there is commonly either torpor or depravation of the biliary secretions, as was the case here, mercurial purgatives are those which are most generally beneficial.

As regards diet, when he first came in he was placed on milk diet, though that was speedily changed for one more generous. At the same time, you will find it always more prudent to put the patient upon a restricted diet (milk diet perhaps being the best) until you are perfectly satisfied that there is no congestion or inflammation in any internal organ.

With respect to the modus operandi of quina in curing ague I am quite unable to explain it. I do not believe that it depends upon its tonic power, because there are many much more powerful tonics, but which are incapable of curing it. Iron for example is one of our most powerful tonics, but you may give any or all of the various preparations of that metal to all eternity without preventing a return of the paroxysm. Dr. Cullen appears to have considered that it did not act through its tonic power, believing that the recurrence of the paroxysms depended on a state of atony of the extreme vessels; and hence arsenic, which certainly has the power of very effectually curing ague, has been most absurdly classed amongst tonic remedies. You will find that it is so in all the older books on materia medica, and I am quite surprised to find that it continues to be so, even in a large work which has only been recently published, in which it is supposed to cure ague "by its primary effect as a stimulating tonic on the stomach, assisting the digestive powers of that viscus, and consequently, both by that effect and also by the extension of its tonic influence to the whole system, removing the debility which favours the repetition of the intermittent paroxysm."

Now I have, during a period of nearly 25 years, used arsenic pretty extensively, but have never been able to find the slightest proof that it is possessed of any tonic power. I have never seen the appetite improved by it, or digestion rendered more perfect, neither have I ever found the muscular system acquire the slightest increase of power. But I have repeatedly seen the converse of this take place, the appetite diminished, digestion impaired, and the muscular system enfeebled. It is, in truth, a most debilitating agent, and no more entitled to be classed amongst tonics than antimony or digitalis. This is my conviction, arising from experience and observation, but you can very readily prove its truth or falsity. I would advise each of you to take for a few days a few minims of the liquor arsenicalis an hour or two before your dinner, and you will then ascertain to what extent your appetite and digestive powers are improved. The fact is, we are just as much in the dark, as to the modus operandi of bark, arsenic, and others in the cure of intermittent fever, as we are of that of mercury in the cure of syphilis. In the meantime we must rest contented with a knowledge of the practical fact, that both bark and arsenic are in most cases capable of curing ague, and that, though occasionally, each will fail when given separately you may succeed by combining them.

With respect to the secondary syphilitic affection, there was nothing particularly worthy of remark; as the mouth became affected the eruption declined, and he was kept sufficiently long under its influence to render it unlikely that it should return; the sarsaparilla was merely given for the purpose of lessening the irritating effects of the mercury on an already debilitated constitution, an effect which long experience has convinced me it is capable of producing.

The case of pleuritis acuta, with chronic bronchitis, occurred in a man of the name of James Hurling, a shoemaker, æt. 67, who was admitted into King's Ward on February 21st; by his own account, he had been the subject of asthma for five years, and, four years ago, spat up a quantity of blood; twelve months since he fractured his ribs on the right side, has had cough constantly ever since, with some expectoration, and more or less dyspnœa; these symptoms became much more aggravated during the last five weeks, and within the last few days has had severe pain of a stabbing character in the right side of the chest, aggravated by inspiration and by coughing; inability to lie on either side; gets no sleep; tongue white; skin hot; bowels costive; urine high-coloured; very little desire for food; pulse 90, full and sharp. During the last twelve months had become much emaciated; from his wasted appearance, before I listened to the chest, I took it for a case of phthisis, but, on using percussion and the stethoscope, I found the resonance loud over all the chest; the respiration was loud, sonorous, harsh, and grating, with some cooing over different parts, especially on expiration, but particularly on the right side, and was heard distinctly at the lowest portion on either side, showing there was no effusion. On pressing between the intercostal spaces on the right side, just where he complained of pain, it was much increased; his expectoration was copious and muco-purulent, it was clearly a case of acute pleuritis supervening chronic bronchitis; and, from the loudness of respiration, and the somewhat increased resonance on percussion, I have no doubt that the bronchial tubes were to a great extent dilated, and the membrane in some parts thickened: throwing aside the affection of the bronchiæ I determined to treat only the acute inflammation of the serous membrane, bled him from the arm to a pint, and ordered two grains of calomel, combined with a quarter of a grain of opium and a quarter of a grain of the tartarised antimony, to be given every six hours; the blood exhibited the usual character of pleuritic inflammation, was highly buffed and cupped, and the pain of the side materially diminished; and he was able the next night

to lie on either side; his mouth became very sore in about six and thirty hours after commencing the mercury, and it was then omitted; and, as there was still some pain on inspiration, the bleeding was repeated to ℥xij., and a blister applied to the right side; the tartar emetic and opium were continued. After the second bleeding, the pain in the side entirely left him, he could lie on either side, and his cough was much better; but, as his mouth continued very sore, he was directed to use a gargle of the liquor plumbi subacetat. dilut., which is often one of the most useful local applications in ulceration of the mouth from mercury; it stains the teeth of a black colour, but not permanently: this, however, is often an objection to its use in private practice. Well, after the mouth got well, there was only the bronchial affection remaining. Now, that was so diminished by the previous treatment, that by prescribing one grain of squill with three grains of the compound powder of ipecacuanha three times a-day, he was well enough to be discharged, perfectly free from all affection of the pleura; but his bronchial membrane will never be restored to its natural condition. During the summer he may go on very well, but when winter comes, his cough will return, and, in all probability, destroy him. You will observe, that the pleuritic inflammation was treated precisely similar to that of the female Smith in Ann's Ward, whose case I spoke of in a former lecture, that is, by bleeding, calomel, antimony, and opium: and when there was no longer any active inflammation, by blisters, and with equal success, too. It is also worthy of your recollection, that in this case as well as the female's, although the inflammation of the pleura had existed several days, there was no proof of any effusion having taken place, respiration being distinctly audible at the lowest point of the chest.

The case of paraplegia from cold, or paralysis of the lower extremities, is a very interesting one, and corroborates what I stated to you at a former lecture, when speaking of a case of palsy from a similar cause, which had been under my care in Mary's Ward. Richard Collins, between fifty and sixty years of age, a sawyer, was brought into the Hospital on the 7th of March. He stated that he was quite well in the morning, and went to his work as usual on the banks of the Thames at Rotherhithe, and that, after having been at work some time, he suddenly stript to his shirt as usual, and the air being exceedingly damp and cold, he felt a numbness in the right thigh and leg, and shortly after the left limb was seized in the same way, and he became quite unable to walk or even stand. Now, when brought to the hospital, which was shortly after the seizure, his legs were perfectly powerless, and quite cold, or, as is commonly observed, as cold as a stone. There was not only paralysis of the nerves of motion, those of sensation were equally affected, so that no sensibility was evinced on severely pinching the feet or legs. On making a very careful investigation of his case, I could find nothing that denoted any affection of the brain; he had no headach, no weight, no giddiness: there was no dulness or drowsiness; on the contrary, his countenance was cheerful and animated; his sense of sight and hearing were perfect; there was no tremor of the tongue, but there was of the hand and arms, which he had been the subject of for some years, and is common to people of his occupation, arising from the muscles being constantly over exerted. The same is found in blacksmiths, who are in the habit of wielding for many hours in the day the heavy hammer.

Upon examining, with equal care, his spine, I could find no proof of any disease existing there. His tongue was clean, his bowels open, had perfect command over each sphincter, his appetite good, pulse 52, small, easily compressed, and might be called feeble. From the history of the attack, and from the absence of all symptoms of affection of the head or spinal chord, I made up my mind that it was palsy from cold, and wrote on the ticket at his bed "Paraplegia from cold." Accordingly I ordered him to be put into a warm bath, and to take a drachm of the ammoniated tincture of guaiacum every four hours, directing him to be carefully watched, lest I should have been mistaken in my diagnosis. Bottles of hot water, too, were directed to be applied to the feet and legs, with hot flannels. The report of that evening is, "that since taking the above medicine, and having the warm bath, he has recovered some feeling in the extremities, and his pulse is stronger." The report of the next day states, "that he continues to get more power and feeling in his limbs." He continued his medicine, and his bowels being then confined, was ordered a dose of house physic. On the next day (the 9th), two days after his admission, finding him much improved, I continued the medicine, and directed the linimentum sinapis of our hospital pharmacopœia to be well rubbed into the limbs three times a-day.

Under this treatment sensation was completely restored. On the 14th, seven days after admission, he was able to walk to the end of the ward; and on the 16th he walked about the ward without any assistance. On the 20th was so firm on his legs, that, as he belonged to a club, and was therefore not obliged to go to work for a month at least, I did not think it right to keep him longer in the hospital, but dismissed him with a supply of medicine and liniment.

Now, had I treated this man differently—had I treated him antiphlogistically—taken blood away, under the idea that it arose from congestion, or inflammation of the brain or spinal chord, I should have done harm. The slowness of the pulse might have induced me to believe that it did arise from some congestion or pressure in that part of the brain; but the absence of all other symptoms made

me determine that it could not; and hence it shows you how necessary it is to found your diagnosis upon a careful investigation of all the symptoms, and not merely upon one alone, however prominent it may be. With respect to the ammoniated tincture of guaiacum, it was merely given as being a good active diffusible stimulant.

The case of fever occurred in a child of four years old, who was admitted into Elizabeth's Ward on the 14th of February. He had been ill a fortnight before he came in. His father and mother had been attacked with fever just before, and both died; one of his brothers, too, had it, and he, I hear, has also died. The treatment of this case was very simple; he was directed to be washed with tepid water occasionally. As there was pain of the head, and the face flushed, four leeches were applied to the temples; and as the abdomen was rather large and tense, and the secretion dark-coloured, three grains of the hydrargyrum c. creta were given twice a-day for some days, and occasionally ʒij of castor oil. The mercury was not continued to affect the mouth, but was omitted when the secretions became more natural; and he took no medicine after, excepting, for a few days, ten minims of vin. ipecac. three times a-day, in consequence of having some cough. On the 24th, a fortnight after his admission, he was well enough to quit his bed, and was dismissed on the 20th quite well, but kept him in out of charity till he had quite regained his strength, as he was to go from here to the workhouse, and I feared that, if not well taken care of, he might have a relapse. I forgot to state, that about a fortnight before his discharge from the hospital the sister of the ward discovered a porriginous eruption on the head; the parts were not irritable, and it got speedily well under the application of an ointment, composed of one part of tar ointment with three parts of the zinc ointment.

LAWS REGULATING THE RESEMBLANCE OF PROGENY TO PARENTS.

BY ALEXANDER WALKER, ESQ.

THERE is now to be described a series of facts, which are certainly among the most curious and interesting of those which appear to have escaped the notice of philosophic observers.

This is the more surprising, as it requires but little analytical power to detect them, as, when observed, they appear to be of the simplest description, and as the regularity of their sequence is such as to constitute apparently so many general laws.

These laws regard the mode in which the organisation of parents affects that of children, or regulates the organs which each parent respectively bestows.

Among animals, the effects of such laws have been observed to take place, and they constitute the various cross breeds; but the laws themselves, on which these effects depend, have neither been defined, nor have they been applied to, nor observed to operate among, mankind.

It will be observed in the sequel, that these laws indicate pairs of organs, successively corresponding, one to the male and another to the female parent.

The general dependence, however, of all these correspondences upon one is so great, and the general sequence of these resemblances seems so certain, that they appear to tend to one great law, as will be seen in the sequel.

As on the size, form, and proportion of the various organs depend their functions, the importance of such laws is immense, whether we regard intermarriages and that immunity from mental or bodily disease, which, when well directed, they may insure, or the education of children in conformity with their faculties, or the employment of men in society.

Little reasoning, however, shall here be founded on these facts, because it might be premature; and such reasoning as is appended will assume no hypothetical data at the expense of truth, for we have seen, in the mystic doctrines of phrenology, the ease with which the assumption of a great number of insulated organs may be made deceptively to account for any habit of life.

If, then, one parent communicate the anterior part of the head, the other will be found to communicate the posterior part.

The parent giving the anterior part of the brain, appears also to give the upper middle part.

The parent giving the posterior part of the brain, appears also to give the lower middle part.

These include the very few great,

yet simple organs, on which all mental phenomena depend; and we have not here, as in phrenology, minute and mysterious but great and easily explicable organs.

The form of the eye appears to accompany that of the forehead.

The form of the ear appears to accompany that of the back-head.

The form of the teeth and the tone of the voice appear generally to accompany the form of the forehead.

The form of the under lip appears generally to accompany that of the back-head.

The form of the face, considered generally, appears to accompany that of the forehead.

The form of the cerebel, or organ of volition, and the whole figure which that organ influences, appear to accompany that of the back-head, even to the fingers, toes, and nails.

Not merely the ear and under-lip, but the appetites, the digestive, the respiratory, and glandular organs, including the structure of the skin, appear to accompany the back-head, or, I believe, it would be more accurate to say, the lower middle part of the head, which accompanies the back-head.

As, in the face, the form of the teeth and all the osseous parts, appears to accompany that of the forehead, while the form of the most muscular part, the under lip, accompanies that of the back-head; it is not quite certain that, in the figure, the osseous parts do not accompany the forehead, while the muscular parts alone may accompany the back-head.

It hence appears, that the forehead, the upper middle part of the head, and the face, except the under lip, go together; and that the back-head, the lower middle part of the head, the ear, the under lip, the general figure, even to the fingers, toes, and nails, as well as the digestive, respiratory, and secreting organs, including the skin, accompany each other.

In every case it will be found that, along with the forehead, &c., go the functions of sensation and observation, and along with the back-head the passions and volition. It is unnecessary to enter here into any theory of the mind, with which this fact is connected. Being a fact, it is better that it should stand alone, and depend for its verification on the further observations of every enquirer. It must, however, be borne in mind, as necessary to understanding the sequel.

A good drawing of the heads of Napoleon, Maria Louisa, and their son, in some measure illustrates these laws, as it shows the son to have the forehead and general face of the mother, but the under lip of the father, while Napoleon himself testifies as to his son having his "great head."

Every observer, however, has the power of verifying these facts in nature.

With this view, the following scheme of the apparently dependent organs may be drawn out in two columns, over one of which may be written the word "mother," and over the other the word "father."

A copy of this scheme should be used in examining each child, and the organs of the father or mother respectively, which the child does not possess, may be crossed out.

Name or initials of child.

MOTHER.	FATHER.
Forehead	Forehead
Back-head	Back-head
Upper middle part	Upper middle part
Under middle part *	Under middle part
Eyes	Eyes
Ears	Ears
Teeth	Teeth
Under lip	Under lip
Face	Face
Figure	Figure
Chest	Chest
Limbs	Limbs
Fingers, toes, nails	Fingers, toes, nails
Appetites	Appetites
Digestive system, &c.	Digestive system, &c.
Skin	Skin.

A knowledge of these laws is of great importance in determining the parentage of a child.

* That is the temple and over the ear.

Thousands of doubtful cases occur in consequence of the face presenting little resemblance to one of the parents, and from other causes which may really or seemingly corroborate this one.

These laws, however, show that the lineaments of the other parent will always be discovered in the figure, &c.

Here it must be observed, that the doubts arising from this want of resemblance in the face, would much more frequently occur were it not that, along with the form of the back-head, which the other parent imparts, go the common appetites, sympathies, and passions, which bind them together as insensibly as surely.

This explains why the parent is generally more attached to the child which is least resembled in face.

The importance of these laws in the guidance of education is not less obvious; for it is evident that they not only indicate the capacity of the child, but corroborate this by all the parent's own experience, whence he will naturally seek eagerly to profit in the person of his child.

A knowledge of these laws, in the case of all intermarriages, is evidently of great importance, though a very narrow and mistaken interest will lead to their neglect.

A moment's reflection will show, that the proportion which exists between these parts in the heads of parents, must be nearly decisive of the character of their progeny; and that if these parts be feeble in both parents, they must also be so in the offspring. Hence the perpetually increasing degeneracy of aristocratic families, in whom none of the intellectual organs are improved and strengthened by incessant action, but, on the contrary, dwindle away, as do all bodily organs, by entire inactivity.

An extreme case will render the importance of these laws more obvious and impressive. Suppose mental incapacity or aberration to exist in a slight degree, in consequence of defect or excess of any of the great portions of the brain alluded to; and on this, it will generally be found to depend.

The most prejudiced will not dispute, that in this case, if marriage be inevitable, its victim should have the very opposite structure.

A little reflection on the same law of descent will show, that a son can resemble his father only in half his organisation. It similarly follows, that on this son intermarrying, he may not communicate to the grandson the share which he has in his father's, but that which he has in his mother's, conformation.

Thus, one half the father's organisation must be lost in the son, and the other half may disappear in the grandson, so that the latter shall not have the slightest degree of the organisation, nor the slightest resemblance to his grandfather.

Hence it follows, that a man may not have the slightest interest, physical or moral, in his second or third generation.

On how slender a basis, then, are founded the claims of hereditary descent; the certainty that the son must have a very partial resemblance to the father, that the grandson may have none, and that every probability is against subsequent generations having the slightest.

But if all this be the case, it must be obvious of what vast importance are the facts previously announced.

It is remarkable that, in the propagation of resemblance from parents to progeny, the mental organs should be divided,—one parent giving one portion, namely, those of sensation and observation,—and the other parent giving the other portion, namely, those of passion and volition, while the intermediate middle part is also divided. Thus the mental faculties are equally derived from both parents; but, as indicated by the preceding laws, the parent giving passion and volition, gives apparently the vital, and part, at least, of the locomotive functions, which chiefly depend on passion and volition.

A little reflection explains the cause of this peculiar division of the mental system, as well as this dependence of the vital and locomotive systems.

It is evident, that in all the voluntary acts of animals the mental system must take the lead; and that, in the act of generation, they are functions of that system—passion and volition, which must excite the locomotive to fulfil the purposes of the vital system. Hence, in generation, the apparent predominance of the mental system.

It is also evident, that in all voluntary acts in which two sexes are engaged, two mental systems are involved; and as the first portion of the mental system, sensation and observation, is relatively passive or dependent on impressions, and the last portion, passion and volition, relatively active and exciting to locomotion, it is probable that, in generation, one sex will always be relatively passive and the other relatively active. Hence the progeny will receive, from one parent, the organisation on which, in the mental system, sensation and observation depend, and, from the other, that on which passion and volition depend; for the very term *propagation* implies the communication of similar organs and functions, and, therefore, of the most energetic and characteristic ones.

Thus the communication of mind and of its most distinguishing or peculiar characteristics to progeny depends on mind and the relative predominance of its two great divisions in parents.

There remains one other great distinction to account for, namely, that of sex; and, as this is as closely connected with the vital, as the preceding distinction is with the mental system, it will be found to depend on the vital system—the relative energy of its sexual portion and abundance of its secretion in the male or female parent.

Thus, as the internal organisation and external character of the mental system in progeny depend on the relative, though variable, predominance of the portions of the mental system in parents; so the sexual distinction of the vital system depends on the relative energy of the sexual portion of the vital system in parents.

It is obviously because these two fundamental distinctions of mind and sex thus depend upon totally different causes, that they may be variously combined and intermixed in progeny.

Hence arise the four simplest combinations of character in the children of one family—the paternal organs of sensation and observation, with the male sex — the maternal organs of sensation and observation with the female sex; the paternal organs of passion, volition, &c. with the male sex—the maternal organs of passion, volition, &c. with the female sex.

When, moreover, it is considered how much the combination of functions are causes of modification, as in the case of different sex with similar features, it will easily be seen to what infinite variety of aspect, in the same family, this must lead.

Thus briefly sketched, the author submits this doctrine to the test of public observation. He has no fear that it will not be applied to it. The subject is too interesting, and its results too important, not to ensure this.

It is not, however, pretended that these laws are traced with perfect accuracy, or that they are the whole of those which regulate the resemblance of progeny to parents; for there appear occasional exceptions to them, especially as to the teeth, ears, nails, and some subordinate parts, as well as various modifications of all of them, which are at present unaccountable to the writer. To this, indeed, the great variety of countenance in the same family may, in a great measure, be due. Some important principles, therefore, may still, perhaps, escape observation.

MODE IN WHICH NATURE CORRECTS THE IRREGULARITIES OF THE VITAL SYSTEM.

BY ALEXANDER WALKER, ESQ.

THIS correction appears to me to be accomplished by means of those glandular organs, whose uses are unknown or doubtful, namely, the spleen, the thyroid gland, the thymus gland, the supra-renal capsules, and the whole system of absorbent glands.

The structure of the first four of these parts is similar; they are all plentifully supplied with blood; none of them have any parenchymatous pulp for the dispersion of secerning capillaries; and none of them have excretory ducts. Sir A. Carlisle, therefore, reasonably concludes, as to the spleen and thyroid, that "since no sensible or chemical alteration has been detected in the venous blood, returned either from the spleen or the thyroid gland, and their nervous supplies are manifestly less than those of the secerning glands, we may reasonably infer that no other change happens to the blood in those organs but that of becoming venous."

In regard to the most important of those organs, the spleen, various hypotheses have been founded on the contiguity and vascular connexions of that organ with the stomach.

Dr. Haighton was of opinion, that the spleen was subservient to digestion by occasioning an increased secretion of the gastric and pancreatic liquids at the precise time when they are most required, in consequence of the stomach, when distended with food, making sufficient pressure on the spleen to direct the blood commonly sent to it to the stomach and the pancreas.

To this, it has fairly been objected, that nature can supply organs with an increased quantity of blood, without any contrivance so purely mechanical as this, as in the nipple, combs of cocks, &c.; and also that the elastic and distendible stomach, filled with soft masticated food and enclosed by the yielding sides of the abdomen, is not adapted to expel the blood from the cells of the spleen, or to resist its flow through the splenic artery.

Messrs. Leuret and Lassaigne also adopt the hypothesis that the spleen is a diverticulum (though very differently from the preceding), for the blood during digestion. They suppose that when the stomach and intestines are distended with food, and the process of digestion is going on, the blood flows in an increased quantity to the villous membrane of the whole alimentary canal, and consequently more venous blood requires to be returned by the hepatic vessels; but that these being presumed to be inadequate to the purpose, the splenic veins and cells become gorged.

These inadequacies are so utterly unlike nature's mode of operation, that there is no difficulty in rejecting such hypotheses; and indeed these very inquiries state facts which lead to a different conclusion.

Dr. Hodgkin thinks that, in a yet more extensive way, the spleen is a diverticulum,—that its office resembles that of the middle tube of a Woulfe's apparatus, and tends to obviate any inconvenience which might arise from a sudden disturbance of the proportion between the capacity of the vascular system, and the fluids which circulate in it.

Were this true, there might indeed be occasion for Messrs. Leuret and Lassaigne's supposition of inadequacy and gorging; but I wonder it did not occur to Dr. Hodgkin that the spleen might stand as much in need of the general system as a diverticulum, as the system might require the spleen in such a capacity.

Leuret and Lassaigne, however, found that the spleen had a rosy or vermilion tint while animals were fasting; that, after chymifaction had begun, it assumed a blue colour, and was somewhat tinged; but that it did not acquire its deep bluish colour and greatest turgescence till the chyme had passed the pylorus, when the intestinal membrane participated

in the activity previously confined to the stomach.

Now, to me it appears, that the spleen, in receiving its blood through the splenic artery, is admirably calculated to carry off that sent toward the stomach when, at the period indicated in the preceding process, after the chyme has passed the pylorus, it ceases to be required by that organ. It is absurd to suppose the spleen to be a sort of cess-pool for the venous blood of the whole intestinal system, to which its size is inadequate; and, as to the blood which it contains being venous, we know that a similar venous change takes place in the arterial blood which distends the cavernous and spongy bodies of the penis.

This, however, appears to me to be but half the purpose to which the spleen is subservient. The stomach is peculiarly liable to be suddenly heated and cooled; and the importance becomes evident of an appendage which, like the spleen, should serve as a diverticulum, and should facilitate the instant supply of the greater or less quantity of blood, which would on such occasions be necessary.

Thus the spleen does indeed form a diverticulum; but, if the views just taken be correct, it is in ways very different from those supposed by the writers alluded to above.

It is remarkable, that the same irregularity which takes place in the action of the stomach, and its exposure to change of temperature, takes place also in the action and exposure of the organ of voice; the same necessity for a diverticulum of the blood occurs of course; and the thyroid gland, a body of similar general structure to the spleen, appears to answer that purpose.

It is doubtless owing to the influence of cold in propelling the blood from the throat to the thyroid gland, that its great enlargement is due among the inhabitants of the Alpine valleys, when, especially during the heats of summer, they drink the intensely cold water which is derived from the melting of the snows.

With regard to both these organs, it must be observed, that, consistently with the purposes assigned to them, as diverticula for the blood in the ways here pointed out, they are largest in the fœtus, in which the stomach and larynx are quiescent.

In this relation to the fœtus the thymus gland and super-renal capsules agree with the preceding glands; they appear to be, at that early period, the diverticula necessary for the uninflated lungs and yet inactive kidneys.

I have now only to speak of the absorbent glands.

It has been seen that the four glands last considered, all serve the purpose of correcting irregular actions of the vital system; but in no part of that system do greater irregularities exist than in that which regards absorption.

The whole of the vessels which compose that extensive system, particularly those which open the external and internal surfaces of the body, and especially those which belong to the alimentary canal, are occasionally called into great activity, and occasionally left in a state of almost entire quiescence. Nothing, one would imagine, could be less favourable to the healthy state of those organs than such extreme irregularity.

This seems to be provided against by means of the absorbent glands. It has been shown, that these glands secrete lymph, that is, that they convert the blood into the liquid, from which it originated, only to form blood again, an operation which can have no other possible use than to keep the absorbent vessels patent and in regular action.

In conclusion, while speaking of glands, I beg to observe, that it is sometimes almost as important to know their relations to each other as their uses. There appears to be a neglect of this in regard to the kidneys, skin, and liver.

Remarking the important circum-

stance, that the kidneys are supplied almost immediately from the aorta, or great artery, and that the liver is supplied by one of the greatest masses of veins, while the skin is placed in the intermediate situation where the arteries terminate and the veins begin, it must be obvious, that the kidneys are the artery-relieving glands, and the liver is the vein-relieving gland while the skin, placed in function, intermediately to these glands, may easily reciprocate with either.

This view appears to me to throw light on the functions of these organs. It shows why, in colder regions, where the sanguine or arterial temperament prevails, the kidneys are the most active, and their diseases most frequent; and why in warmer regions, where the venous or bilious temperament prevails, the liver is most active, and its diseases most frequent; while, in the former, the arteries of the skin and other capillary arteries; and, in the latter, the veins of the same parts are liable to be affected, causing inflammations in colder and fever in warmer regions. It shows, also, how fever, if thus a venous disease, is intimately connected with the state of the liver, which then, in warmer countries, tinges the skin *.

BLUE URINE.

This phenomenon is of so very rare occurrence, that it is not even alluded to in works on the urinary secretion. In 1824, M. Fontanelle analysed some blue urine, and ascertained that the colour was owing to the presence of a hydro-ferro-cyanate of iron. Soon afterwards, M. Braconnot met with a similar case; he attributed the colour to a peculiar substance, which he called "cyanine." Since his experiments, M. Majori, professor of chemistry at Geneva, and M. Cantri, professor at Turin, have detected the ferro-cyanate of iron in blue urine. It is right to mention, that Fourcroy, many years ago, detected this salt in the urine of a woman who was subject to frequent and strong convulsions.—*Report of the Academy of Sciences.*

* While speaking of the liver I may observe, that, about twenty years ago, I pointed out, in public lectures, a circumstance, respecting which I had not previously seen any reasoning in books. This regarded the yellow stain, which, on opening bodies, is generally seen on the small intestine, where the gall-bladder rests upon it. It seemed to me worthy of notice, that while the bottom of the gall-bladder rests against this spot, its duct enters the intestine a little lower down, so that as each portion of chyme here passes beneath the gall-bladder, and presses upon it in proportion to its quantity, in the same proportion must be expressed the bile, which, flowing through the duct, must be poured into the intestine immediately before the descending chyme.

ORTHOPEDY.

M. Dupuytren, in the name of the section or committee of the surgery prizes, made a report on the essays which had been sent in to contend for the prize of 6000 francs, offered by the Academy in 1830, for the best memoir on the following subject. "To determine, by a Series of Observations and Experiments, what are the advantages and what are the disadvantages of Mechanical Remedies and of Gymnastic Exercises, in the treatment of the Deformities of the Osseous System." The reporter stated, that five essays had been sent into the commission; but that the authors had not illustrated the subject in the manner which the Academy had desired, and that the commission, therefore, did not intend to award the prize to any one this year, but that its value should be raised to 10,000 francs, to be given to the best memoir on the same subject in 1834.—*Report of the Academy of Sciences.*

THE
London Medical & Surgical Journal.
Saturday, May 25, 1833.

THE LONDON UNIVERSITY.

THE Meeting that took place for the distribution of prizes amongst those students whose ardour and love of science deserved some public reward, has fully proved that the London University will, in spite of all the ill-natured opposition and foul calumny that has been lavished on it, prove an institution of public benefit and national importance. We hail, with pleasure, the ceremony that took place on that occasion—of laying the foundation of an hospital. We have long since pronounced it as our opinion, that until this is built, and the duties properly performed, no medical school could exist worthy the patronage of the profession and the public. We were indeed happy to see so many noblemen and gentlemen of acknowledged liberality and principle present on such an interesting occasion, and we augur the best possible results from it.

We indulge an earnest hope that the London University will prove of real utility, and that the design of its original promoters will be carried into effect. The education of young men to the honourable performance of their moral and social duties, whilst they are imbibing the stream of knowledge, is much better carried on under the eye of a parent in the midst of a great city, than in those monastic institutions where little is attended to but the mere outward performance of a few ceremonies. The system of Oxford and Cambridge is very little adapted to make men fitted for the world, or for the real business of life. The young men are only anxious to be seen in Chapel and in Hall, a certain number of days in the week, perfectly regardless, many of them, of any thing but their own pleasures and their own pursuits. They have near them no kind and anxious friend to instil into their minds the necessity of actual study; their tutors feel no interest in them beyond the muster-roll of the Chapel and of the Hall. If they prefer the study of medicine they cannot follow it, for there are no lectures,—no hospitals,—no school of dissection; hence it is, that the Oxford and Cambridge physician is rarely anything beyond a drawing-room ornament—a fashionable man-milliner. Should he have been a student, he proves only a classical scholar: he is not a practical man, but a theorist. If he indite a volume, it is full of the learning of the ancients, but seldom contains any thing of the state of men and manners as they actually exist. It is hence that, amidst the roll of the Fellows of the College, we find so few that are actually successful, and then only in London, where University friendships have so much influence. If one of them settle in a country town, he assuredly finds a Licentiate or an Edinburgh physician run before him in the race, and reach the goal before him.

It is true that some of the Fellows are men of distinguished talent, but there is scarcely one of real merit who

has not conjoined with the education of the English university, the more solid and advantageous knowledge gained at Edinburgh or London. If the University, which has lately sprung into existence, was founded upon liberal and honest principles, it has been carried on amid many difficulties, with every prospect of success; we must, of course, make allowances for the infancy of every institution; we cannot expect that it is at once to reach maturity, but we must call even upon its opponents candidly to acknowledge, that as few errors have been fallen into as possibly could be expected. We must remember that the many difficulties that every new undertaking has to surmount, are magnified by the malevolent, and every failing pointed out by the envious, still onward will the London University march; it will yet disseminate good around, and though many may find faults where it is impossible that all should be perfect, still it will outlive its calumniators, and be the source whence much good will arise, and it will be universally looked up to as the first of the schools in the country. The selfishness of some, the fears of others, and the carelessness of the many may for the present prevent the University enjoying the privileges that a charter may confer. The present and the past administration may find reasons for declining to recognise it, but it has already obtained the most honourable and the most desirable species of recognition; the approbation and the respect of that great tribunal, which is superior to all others, public opinion. Its supporters have only to recollect, if they want a spur to their ambition, that they have the eyes of the intellectual part of the community directed towards them, and that they will receive from it the reward of their honest exertions, should they succeed in the noble objects they have now every prospect of carrying into effect.

THE APOTHECARIES' ACT.

Our vacillating ministers have allowed their good nature to be imposed upon by the medical monopolists of London, and have suddenly hesitated, after a solemn pledge, to introduce a bill for remedying the defects of the present Apothecaries' Act. We foresaw that this would be the case, as we were well aware of the intention of the London Company to set forth their rights as Englishmen against the Scottish and Irish. One of our contemporaries defends this view of the matter, denounces Scotch intruders, and gravely advises them to remain at home. When a medical writer is obliged to introduce nationality in a scientific discussion, he has evidently the worst side of the question. He also insinuates, that those who are qualified in Scotland are an inferior grade, and far below the licentiates of the English Hall. The world knows that the reverse of this opinion is the truth. The Scotch, with much more liberality, consider themselves, by the Act of Union, British subjects, and, on this ground, admit English physicians, surgeons, or apothecaries to enjoy equal rights with their own faculty, on the payment of certain fees, and without re-examination. They only expect like advantages for their medical practitioners in England. We need scarcely observe, that it is perfectly absurd and foolish to defame the Scotch medical faculty, and those educated by it, for the history of

British medicine proves that they were and are the brightest ornaments of the profession. The detraction of the Edinburgh graduates and surgeons might have done two centuries ago, but it is too barefaced to be tolerated at the present period.

With respect to the benefits conferred on the public by the London Apothecaries' Hall, we are ready to acknowledge that they are considerable, but unquestionably very much over-rated. It is very true, that the general practitioner is obliged to receive a good medical education, and is much more competent to practise the healing art than eighteen years ago, when the existing law was passed. But is he protected by the Hall against the intrusion of the hordes of pretenders who assume his privileges, and deprive him of his rights?—Certainly not. The apothecaries will very readily take law proceedings against those who intend at a future time to belong to them, or against regular surgeons, while they allow chemists, druggists, and every description of quacks to practise with impunity. This being the fact, we consider that all qualified physicians, surgeons, or apothecaries of Scotland and Ireland ought to have as good a right to practise in England as the hundreds of persons who have never studied the healing art at all; and more especially as British subjects ought to enjoy equal rights and privileges. If the unions between this country and Scotland and Ireland mean any thing, it is, that those of the two last sections of the empire should be entitled to equal rights with British subjects. When the countries were different nations, each had its own laws relating to the practice of the medical profession; but since they have formed one kingdom such laws should be abolished, and one act affect the whole.

We have no doubt but this will be ultimately adopted, though we fear that the present ministers are not the men to attempt it. It is very probable that they will introduce some act for the protection of medical graduates against the tyranny of the apothecaries, but further than this they will not go. The Under Secretary of State said in the House of Commons that government had resolved to improve the Apothecaries' Act; while his superior observed in the Lords, that it was a matter of great difficulty to legislate on the subject. From this we may infer the reason why the Lord Advocate's bill has not been introduced, though ready, for that purpose. The policy of the apothecaries in setting forth their claims as Englishmen was the wisest that could be adopted, and has very well succeeded. Medical science is, however, the same in these countries, and its legally qualified practitioners should have equal protection and privileges in every part of his Majesty's dominions.

POST-MORTEM EXAMINATION OF MR. KEAN.

We have been called upon by many of our correspondents to express an opinion upon the subject of the newspaper statement of the examination of the body of that great and splendid genius, the late Mr. Kean. We certainly should have complied with the wish, did not we find that we should have reason to express our dissatisfaction with a report, which is signed by three members of the profession, in a manner that would be by no means agreeable to our general mode of acting towards our brethren.

The columns of the public press have been so gorged with medical paragraphs throughout the whole of the illness of Mr. Kean, that it has disgusted medical men and the public. There has been, we must acknowledge, an ostentatious exhibition of the names of one or two of the medical men in attendance; it has been very severely commented on by the public press, and it is most assuredly deserving of reprobation. As for the report that has appeared, it is very unsatisfactory in every point of view,

—it is much too diffuse for the public, and much too meagre for the profession. From its commencement we were led to expect that the size and thickness of all the muscles of the body would have been given to us. And we cannot see what light has been thrown upon the cause of death, or upon any of the circumstances connected with life, by the account given of the occipito-frontalis muscle. We shall not pursue the subject further, than to assure our readers that we feel with them, that there has been a most unnecessary intrusion made upon the public by the details that have been given; and that were all the men of talent who die to have their last moments and their dead bodies examined in a similar manner, our time and attention would indeed be very badly occupied.

MONUMENT TO THE MEMORY OF DR. BABINGTON.

We have heard that upwards of 600*l.* has been subscribed towards a monument to the late Dr. Babington, whose memory is cherished with respect and veneration by his professional friends. Behnes has finished an excellent bust, which has been very much admired for its fidelity, and for the taste and judgment displayed. He has, therefore, been proposed by some of the subscribers, as the proper person to execute the monument; as an artist few men rank higher; and we should look with confidence to his producing a work of art which would command the public admiration.

ABOLITION OF THE VACCINE BOARD.

We insert the Report to Parliament of the Vaccine Board. The President of the College of Physicians and his colleagues seem to deplore that they are to lose their valuable appointments; this we do not regret; but there are other Boards which an economic administration might sweep away. A return has just been made to Parliament of the expenses of the Colleges of Scotland, and amongst other items we find a decent salary to two unknown gentlemen, which had much better be swept away,—his Majesty's limner and his Majesty's historiographer.

How amongst these items the following ones found their way upon the balance sheet of the Colleges we must leave Lord Althorp to explain.

To His Majesty's Plate at the Races .	£ 100
To the Caledonian Club	100

NATIONAL VACCINE INSTITUTION.

Copy of the last Report from the National Vaccine Institution to the Secretary of State for the Home Department.

Whitehall, 19th Feb. 1833. } S. M. Phillipps.

TO THE RIGHT HON. LORD VISCT. MELBOURNE, *Principal Secretary of State for the Home Department.*

National Vaccine Establishment, Russel-place, 21st Jan. 1833.

My Lord,—The Board of the National Vaccine Establishment has executed the benevolent purposes of Parliament this last year with its usual zeal, and with all possible success.

The number of Persons vaccinated in the metropolis and suburbs by its own immediate agents, within the last twelve months, has exceeded that of any former year by 3000, and the means of giving the protective process have been distributed by us to more than 100,000 others in various parts of the world. To maintain such a supply of the vaccine lymph, and to be prepared to answer on the instant the incessant demands which are made upon us for it, nothing less than a National Establishment is adequate; and accordingly we have found that where the charity of individuals, however abundant and well organised, has been appropriated to institutions having the same objects in view in the

country, such institutions have always failed.

The opportunity of taking the lymph from a vesicle in progress, in order to be most successful, should be taken between the seventh and eighth days, which is so limited a period, that, unless there be a large number of vaccinators to contribute continually their respective quotas of authentic lymph into a common depôt, there is danger of the store failing when it is most urgently wanted.

The small pox has been prevailing with its usual fatal results in various parts of the country since our last report; and magistrates frequently write to us to express their regret that they cannot prevent ignorant persons from going about the country to inoculate; but we still live in hopes that the good sense of the people will discover the superior advantages of vaccination, when it is repeatedly stated to them as a fact, that, of an equal number of persons vaccinated and inoculated, only so many of the former will be capable of taking the small pox afterwards, and that in a safe degree of the disease, as are found to die by the latter.

(Signed) HENRY HALFORD,
President of the Royal College of Physicians.
THOMAS HUME, M.D.
Censor.
JOHN PAINTER VINCENT,
President of the Royal College of Surgeons.
CLEMENT HUE, M.D.
Registrar.

MEDICAL SOCIETY OF LONDON.

Monday, May 20, 1833.

WILLIAM KINGDON, Esq., President, in the Chair.

Sudden Loss of Hair all over the Body — Alopecia — Porrigo decalvans — Ezema rubrum — Lepra.

THE minutes of the last meeting were read and confirmed.

Six new Fellows were unanimously elected.

Mr Diamond related the case of a gentleman of regular habits and a good constitution, who, after one days' shooting in cold weather, was astonished on the following day on observing the falling of the hair off his head, and all parts of the body. He wished to learn from the Society if any member had seen a smilar case; and what was the best mode of treatment. The skin of the denuded parts presented the silvery appearance, usually observed after porrigo decalvans. The hair did not fall off in patches, but simultaneously; and the patient complained of an uncomfortable feeling of heat when in company since the occurrence.

Mr. Gosset had met with a similar case in a middle-aged lady, to whom he was called for the purpose of passing a catheter. He was not consulted about the baldness; but would have tried a remedy he had found generally effectual in porrigo decalvans, and that was, Wilkinson's ointment, which was composed of equal parts of sulphur, tar, and lard.

Mr. Blenkairne observed that there were other ingredients in the ointment alluded to, but these were of minor importance.

Mr. Gosset replied, he was aware of that fact; but he considered the hydrosulphuret of ammonia of little value, and only rendered the ointment extremely unpleasant by the odour it communicated. He stated that Mr. Wilkinson had used ammonia internally, in doses of twenty grains, in scarlatina, and had never lost a case.

Mr. Clifton remarked, that the same gentleman praised it in urticaria. He wished to observe that in Mr. Diamond's case he considered it a constitutional disease, in which local remedies would not succeed. He found the compound sulphur ointment almost invariably successful in porrigo decalvans. He considered sulphur the efficient remedy in the ointment mentioned by Mr. Gosset. He had found equal parts of camphor and strong mercurial oint-

ment extremely effectual in restoring the hair in porrigo decalvans.

Dr. Whiting observed, that a great many stimulating applications would restore the hair, such as the ointment of nitrate of mercury, the essential oils, the oil of cloves particularly.

Mr. Gosset could not assent to this opinion, because a vast variety of stimulating applications were generally tried before medical advice was solicited. According to his observation, which was pretty considerable, the remedies of this description, usually tried, had generally failed.

Mr. Kingdon stated, in the case of a boy who had herpes of the scalp confined to one spot, he had tried the black ointment, or that of nitrate of silver, so generally applied in diseases of the eye by Mr. Guthrie, and with success.

Mr. Cole considered that Mr. Diamond's case was constitutional, that the function of the skin was concerned, and, therefore, vapour-baths might be useful to restore healthy action.

Dr. Whiting was anxious to enquire of the Society, the best remedy for eczema rubrum, which was an exceedingly frequent and troublesome disease. He had used a vast number of remedies in vain. The itching was intolerable, but it was sometimes relieved by the application of very warm water.

Mr. Clifton had found much benefit from the use of oxymuriate of mercury and almond emulsion, while the compound calomel pill, or mercury with jalap, in cases of children, was employed at the same time.

Mr. Kingdon had tried the oxymuriate of mercury and bark, as advised by Sir A. Cooper, in glandular diseases, to which he adds tincture of opium.

Mr. Gosset had used the decoction of dulcamara and the acid of pitch with decided benefit.

Mr. Diamond had employed the dulcamara with the best effects in lepra.

The Society then adjourned.

LONDON UNIVERSITY.

Our predictions with respect to the ultimate success of the Medical School of the London University are now being realised. The foundation stone of the North London (University) Hospital was laid on Monday last by his Grace the Duke of Somerset. An hospital and a power to grant degrees in medicine are only wanted to render the London University the first medical school in Europe. The professors are eminent and distinguished by their original works, which cannot be said of those belonging to any other institution of the kind in these countries. It is ridiculously absurd to contend that London, of all the capitals in Europe, should not have a university. It will and must have one, and that very shortly.

Distribution of Prizes to the Medical Classes.

The following is a list of prizes, and the gainers of them:—

Anatomy.—Gold medal, &c., Mr. Charles Nossoc, London; Silver do., Mr. John Taylor, Huddersfield; second ditto, Mr. Michael Foster, Holywell, Beds.

Practical Anatomy.—Gold medal, Mr. Wm. Baly, Lyme Regis; Silver ditto, Mr. George Ellis, Musterworth, Gloucester; second ditto, Mr. Michael Foster, Holywell, Beds.

Materia Medica. — Gold medal, Mr. John Taylor, Huddersfield; silver ditto, Mr. W. Moorhead, Dungannon; second ditto, Mr. Joseph Hampage, Bristol.

The principles and practice of medicine. — Gold medal, Mr. Francis Taylor, Hull; silver ditto, Mr. Michael Foster, Holywell, Beds.; second ditto, Mr. William Baly, Lyme Regis.

Surgery.—Gold medal, Mr. Michael Foster, Holywell, Beds.; silver ditto, Mr. Romley Cheyne, London; second ditto, Mr. G. P. Gill, London.

Midwifery.—Gold medal, Mr. Michael Foster, Holywell, Beds.; silver ditto, Mr. H. F. Hopkinson, Spring-

dale, Yorkshire; second ditto, Mr. Samuel Hadwin, Lutterworth.

Chemistry. — Gold medal, Mr. Charles Maitland, Brighton; silver ditto, Mr. F. Rogers, Windsor; second ditto, Mr. A. J. Dixon, Hovingham.

Medical Jurisprudence.—Mr. Michael Foster. This prize was a splendidly bound copy of Russell's book on the above subject.

Botany.— Gold medal, Mr. J. H. Cooper; silver ditto, Mr. Henry J. Harris.

It was stated by Dr. Lindley, the professor of this last branch of science, that for three successive years the gold medal given to the most successful student of it, by the Apothecaries' Company, had been won by the medical pupils of the university.

Comparative Anatomy.—Gold medal, Mr. F. H. Cooper, Lewes; silver ditto, Mr. R Harris, London.

MEDICAL REPRESENTATIVE IN PARLIAMENT.

Some of the members of the profession seem anxious to raise a subscription to return to the House of Commons some honest and enlightened physician, to represent the opinions of the medical community when the great questions relative to it are agitated. We shall be very happy to lend our assistance to such a scheme, should its promoters point out any plan which would be really serviceable.

Review.

Report of the Experiments on Animal Magnetism, made by a Committee of the Medical Section of the French Royal Academy of Sciences; read at the Meetings of the 21st and 28th of June, 1831, translated, and now for the first time published: with an Historical and Explanatory Introduction, and an Appendix. By J. C. Colquhoun, Esq. 8vo. pp. 252. Edinburgh: Robert Cadell; Whittaker and Co., London. 1833.

This is one of the most extraordinary works which has ever emanated from the press, and far more marvellous than that of Baron Munchausen. It contains a great number of the most marvellous stories, relative to the various methods of domestic treatment employed by mankind, in different ages, for the removal of diseases. Mr. Colquhoun, in a well written and philosophic introduction, gives an account of the practices adopted in various countries for the removal of diseases; such as rubbing children from head to foot before going to sleep; passing the toes along the nerves in rheumatism; touching with the royal hand, for the cure of scrofula; the application of the saliva for the cure of different complaints and swellings; the baneful influence of the evil eye, the cure of all diseases by certain Indian physicians, by blowing them away with the breath. He cites examples of nervous and convulsive diseases, such as epilepsy, chorea, spasms, &c., that had been cured psychically, or by strong mental impressions only, and describes some singular examples. He refers to several remarkable instances of the power of the mind over the corporeal organs, as in cases of somnambulism, paralysis, and apparent death, induced by volition. He next alludes to the incredible power which enables an individual by an energetic exertion of volition, to produce very extraordinary effects upon the organisation of others; that the will of one man may produce effect on another at a considerable distance. This the ancient writers ascribed to universal magnetic power. Here we must stop our narrative, and observe that this is the merest assumption. Was there ever such a preposterous position as that of Pomponatius, that the magnetic virtue "may in certain circumstances render the very elements and matter itself subject to the commands of man." Henceforth we need only request a few

magnetisers to assemble for the purpose of controlling the artillery of the skies, the winds, the seasons. On a late occasion, a magnetiser published a work in Paris, in which he declared that the Redeemer stayed the winds by his magnetic powers, and performed all his miracles by the same agency. This writer went on to assert, that he could make an individual sleep for several weeks, remain without food and suppose he had been taking the most delicious aliment during the time. However incredible this may appear, certain French academicians have adduced examples of somnambulism of two days' duration, caused by animal magnetism. But to return from this digression.

Several writers of the sixteenth and seventeenth centuries maintained the existence of an universal magnetic power, by which they attempted to explain the dependence and reciprocal action of bodies, in general, upon each other, and particularly the phenomena of the vital organisation. They also held, that the will or the imagination of man, when energetically exerted, was capable of producing a perceptible effect on the organism of other living beings, even at a distance.

Mesmer, in 1766, assumed the existence of a certain subtle elemental essence (the ether of Newton) pervading all nature; and this he first concluded was electricity, but he found it insufficient to explain the phenomena. He next fixed on the magnet, applied it in different diseases, and, according to his own story, with success. He now employed magnetic rods, but finally imagined that these were mere conductors of a fluid issuing from his own body. He observed, that by drawing his hands from the head towards the feet of *nervous* patients, he produced various phenomena; and he jumped at the conclusion, that there exists in the human body an original and peculiar species of magnetism capable of being exerted without the aid of an artificial magnet.

The term *animal magnetism* was now to replace mineral and metallic. Thus, without a shadow of proof, we are called upon to admit the existence of a magnetic power in the animal organisation; and we shall observe by the sequel, that a man can exert this power on another without any contact but by simple volition. In 1784, the medical faculty of Paris (except M. Jussieu) denounced it as a humbug; but Mesmer, and Perkins with his metallic tractors, succeeded, on the largest scale, to gull the unthinking part of the public.

We are next favoured with the necessary qualifications of a magnetiser. He must be in good health and between twenty-five and fifty years of age. Every individual does not possess the power of operating.

In general, strong and healthy persons exhibit little susceptibility, while weak and diseased persons are strongly affected in various ways. The magnetiser may operate with his hand or without it; either by breathing, or by fixing his eye or thoughts steadily and intensely on the patient. When the magnetic connexion has been established, a single look has thrown the patient into "magnetic sleep, or somnambulism." The usual method is to stroke repeatedly with the palms of the hands and fingers, in one direction downwards, from the head to the feet, and, in returning, to throw the hands round in a semicircle, turning the palms outwards, in order not to disturb the effect of the direct stroke. To magnetise from below upwards, from the feet towards the head, will counteract the former plan, and may act injuriously on irritable subjects. If the back of the hand be employed no effect will be produced. We are informed of another method in a subsequent page.

"The operator lays hold of the shoulders of the patient with both hands, in such a manner that the balls of his thumbs are placed in the armpits, and the other fingers rest upon the shoulders. In this position he continues for a few seconds, excites in himself the intention of pressing the shoulders together, and then laying

hold of the upper part of the arms, glides down to the elbows, tarries there a little, and then proceeds down to the hands, where he applies the points of his thumbs to those of the patient, and allows the remaining fingers to rest upon the back of the patient's hands. He then returns by means of the dorsal manipulation (*i. e.* the hands being thrown round in a semicircle, in the manner already described) to the shoulders, and repeats the same operation two or three times; after which he commences the effective manipulations, of which a general description has already been given.

"No person ought to attempt the magnetic treatment without having previously prepared himself by a careful study of the best works which have been written on the subject."

The effects are *soothing and strengthening.* Those persons who could not be invigorated by corroborant medicines of any kind were speedily restored to health. The appetite, digestion, and all the secretions are improved. It causes a gentle stimulation of the whole surface of the body, by which all disturbed harmony and diseased local action are removed. "It soothes the most violent nervous action, the tumult of the muscles, and over exertion of the vital functions." We presume, therefore, we shall hear of no more fatal cases of tetanus or hydrophobia, but we heard of no cures effected by magnetism, though its power had been established in 1826. We are surprised it was not employed in malignant cholera, in which there was nervous disorder enough. "It draws off an increased vital action from diseased parts, and conducts it to others," doubtless after the method of Mr. St. John Long. It sometimes happens, however, that no perceptible action is produced; we really believe this to be the truest statement in the work before us. The patient may be affected while awake, or he may be thrown into a half sleep, a magnetic sleep, a simple somnambulism, a state of self-intuition, or lucid vision, and lastly into a state of universal lucidity. No patient can reach the higher degrees without having passed through the lower, principally if not altogether.

"Animal magnetism acts on the abdominal nerves, the solar plexus, the archeus of Van Helmont." Such are the leading points adduced by Mr. Colquhoun, and we leave our readers to reconcile them with reason, common sense, and pathology. To ourselves they appear incredible, and, in many respects, impious. In this conclusion we are confirmed by the report, read before the Academy of Medicine by MM. Bourdois de la Motte, Fouquier, Gueneau de Mussy, Guersent Husson, Itard, J. J. Leroux, Marc, and Thillaye. Their observations were totally dissimilar to the preceding, which were laid before the Academy in 1784. "We neither admit nor reject," say they, "the existence of a fluid, because we have not verified the fact." This is very bad logic. If the reporters do not admit the existence of a fluid, but admit its effects, they admit effects without a cause. Few, we apprehend in this country, will assent to this kind of reasoning. It overturns a universally admitted proposition, "*ex nihilo nihil fit.*" But they do not reject the existence of a fluid, and therefore they do admit it. This is certainly French logic with a vengeance. Let us now attend to the effects without causes.

"I. Magnetism, which the reporters do not admit, has no effect upon persons in a state of sound health, nor upon some diseased persons.

"II. In others its effects are slight.

"III. These effects are produced by ennui, by monotony, by the imagination.

"IV. We have seen them developed independently of these last causes, most probably as the effect of magnetism alone."

Here we must close our strictures for the present, and shall treat our readers to something marvellous in our next. In the mean time we must inform them, that the French Academy pronounced no opinion upon the above report. Though we denounce animal

magnetism as a chimera in a medical point of view, we are much indebted to Mr. Colquhoun for the amusement we have derived from the perusal of his work. It is a cheap, well written, and interesting production, which will astound the general, and amuse the medical reader. Every one fond of the marvellous ought to possess it.

DR. HEATH'S NEW PERCUSSOR.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—I have for some time recommended an instrument, of which the following is a description, and, as I am now convinced of its utility in cases where friction (in any of its modifications, as shampooing, the douch, &c.) is an appropriate remedy; I think it of sufficient importance to give it publicity. From time to time, in the course of many years' extensive opportunities in England and on the continent, I have, I believe, witnessed the employment of all the means that have been recommended, for the purpose of assisting and reanimating torpid circulation, from the remedium arenarum et arundinum to Admiral Henry's pommelling hammer, Dr. Gower's pulsator, and the still more recent plans of Dr. Balfour, but having found that these methods were either inefficient, or attended with inconvenience, I was led to the construction of a percussor, which I hope will be found as valuable an auxiliary by the profession generally as I have uniformly found it to be

Description.—Two balls of India rubber are affixed to the extremities of a circular whalebone rod, fifteen inches long; one of these balls admits the free egress and ingress of the air, and depends for its form upon its own elasticity, assisted by a small quantity of curled hair; the other is hermetically sealed, and its figure is preserved by the air contained. Upon the circular rod, is a moveable handle, which regulates the length of the lever, and consequently the spring and stroke of the instrument. By a slight movement of the hand a rotatory motion is given to either of the balls, and they may thus be so applied as to produce the effect of the gentlest friction, or be increased to that of the most powerful shampooing. If the compressible ball is placed for a few moments before the fire, it becomes, of course, more pliable and yielding, and as that hermetically sealed is always in a state of tension, the quality of the ictus may be modified at discretion. Leaving to the discrimination of the profession the cases in which this instrument may be employed with advantage,

I have the honour to be,
Gentlemen,
Your obedient humble servant,
J. P. HEATH.

P. S.—It is hardly necessary to observe, that this simple percussor may be applied by an ordinary nurse, or, in many cases, by the patients themselves.

May 22d, 1833.

BOOKS.

On a New Membrane of the Eye; being the substance of a Lecture delivered at Oxford before the meeting of the British Association for the Advancement of Science. By GEORGE HUNSLEY FIELDING, M.R.C.S., &c., &c. Hull: 1832. 8vo. pp. 28.

Considerations Pratiques sur les Neuralgies de la Face. Par Halliday, Docteur en Médécine des Facultés d'Edimbourg et de Paris. Paris: 1832. 8vo. pp. 175.

CORRESPONDENTS.

Enfieldiensis.—The manuscript was very obscure, in consequence of being hastily written. We believe the public and profession are aware that Mr. Abernethy is interred at Enfield.

The substance of the lecture may appear.

Mr. S.—We cannot state whether the Apothecaries' Botanic Garden will be open this season; but are disposed to think so, as we lately received intimation, as lecturers, on our privilege to introduce pupils.

Amount of Subscriptions already received in aid of Dr. Ryan . . £227 17 6

ALL Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 70. SATURDAY, JUNE 1, 1833. Vol. III.

LECTURES
ON THE
PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXXVIII., DELIVERED JAN. 14, 1833.

Gentlemen,—In the last lecture, I was endeavouring to give you some general ideas of the nature of the process by which broken bones are united; my observations related principally to fractures of the long cylindrical bones, because, in those of other bones, the process of union is somewhat different. The fracture of a long bone derives its earliest firmness, first, from what Baron Dupuytren calls the *provisional callus*, which is, as I explained, a temporary bony deposition round the fractured part—a sort of osseous ferule; this seems never to begin to form before the tenth day; its production may be said to commence at some period between the tenth and twenty-fifth day, and sometimes is not altogether complete until the end of the fourth or fifth month. While this external provisional callus is being formed, an ossific process is going on in the medullary cavity of the bone, by which means, an additional bony substance is deposited in that part, and another means of support is provided for the fractured portion of the bone. Gentlemen, such are the *provisional* or *temporary* formations, or those designed to keep the two ends of the bone in steady apposition during the production of the *definitive callus*, or that bony deposition which is to connect the two ends of the bone together in a direct and permanent manner. The external provisional callus then corresponds to Du Hamel's *bony ferule*, which he describes as surrounding the fracture; he also noticed the other provisional callus, which is produced in the medullary cavity.

Now, it appears, that the source of the external provisional callus is not exclusively in the vessels of the periosteum, but that the surrounding cellular substance and muscles have a share in the production of it, and this in a still greater degree when the ends of the fracture are considerably displaced. The formation of the definitive, or permanent callus, which follows that of the temporary one, is not completed till the eighth, ninth, or even the tenth month after the accident; but as, when it is finished, the provisional callus becomes unnecessary, nature then takes away not only the external provisional callus, but also that which is formed in the medullary cavity, and this becomes restored to its original state. All these changes, however, are not brought about until long after the occurrence of the fracture, much longer than was formerly supposed.

The provisional differs from the definitive callus, not only in its situation and duration, but also in its lesser consistence and solidity. When it is finished, it only possesses the strength necessary to resist the action of the muscles, and the weight of the part; nay, there are cases in which, on the removal of the splints, it will yield to these two forces, especially in oblique fractures; and it is of consequence for you to recollect this fact, namely, that the limb may be straight as long as the splints remain applied, but that from the too great weight on the limb, or the too powerful action of the muscles, after the removal of those supports, deformity may still ensue. You may have questions put to you in courts of justice, touching this point, when a person brings an action against a surgeon on account of a fracture having united with deformity. You should know, therefore, that if the splints are removed too soon, or the part be used too roughly and boldly, while the strength of the fractured bone depends entirely on the external and internal provisional calli in a certain stage of their formation, it is possible that a degree of deformity may yet follow. Sometimes the strength of the provisional callus will be overcome by a shock or blow,

or some other form of external violence, and sometimes by the effects of constitutional disease. I have seen patients with bad fractures, whose limbs had proceeded a certain way in the process of cure, when they were attacked with fever, and the provisional callus was so weakened, that it admitted of being bent with facility, though it had previously been quite inflexible. This fact proves, that the provisional callus is weaker than the definitive one; and the knowledge of it is useful; for, supposing a limb to be badly set, if the provisional callus has only advanced to a certain stage, an attempt may yet be made to improve the shape of the limb. This has been done in France with success; yet, it must be manifest, that the older the provisional callus is, the more difficult will it be to amend the shape of the bone, for the callus becomes firmer and more unyielding in proportion as its ossification becomes complete. The definitive callus, though less bulky than the provisional one, is harder, stronger, and more compact, being indeed when it is perfectly finished, stronger than the rest of the bone; and, if the bone be broken again, it will not be in the situation of the definitive callus. Leaving out of present consideration the effects of scurvy, I may say, that the definitive callus is never destroyed by disease; in this respect also it is stronger than the provisional callus, and whatever deformity may exist in the limb after the definitive callus is formed, cannot be lessened.

Hitherto, gentlemen, I have chiefly directed your attention to the process of union in simple fractures of the long cylindrical bones, which have been properly set. When the two ends of a fracture are in apposition only at one point of each of their surfaces, it can only be at this point that there can be any definitive callus of the ordinary kind; but as a compensation for this disadvantage, the external callus is never entirely absorbed, but remains as a substitute for what would be the definitive one under common circumstances. When the two surfaces of the fracture are not at all in contact, but the ends of the bone touch one another laterally, strictly speaking, there is no provisional callus. In such a case, not only the periosteum, but the vessels of the adjacent cellular membrane and muscles assist in the work of producing new bone, by which the two fragments are to be connected. The side of one fragment here becomes soldered by osseous matter to the side of the other, and whatever new bone is formed for this purpose, remains permanent, or, in other words, is a definitive callus. Lastly, in compound fractures, attended with suppuration, the bones remain disunited for several weeks, and then union takes place in a different manner from what I have already explained to you. In this instance, no provisional callus is produced; but at the end of several weeks, the ends of the bone soften and granulate, and in proportion as the secretion of pus subsides, the granulations of the surface of the fracture deposit ossific matter, or, as the French pathologists say, they are themselves converted into bone. It appears, then, gentlemen, that the process of union in compound fractures is different from what it is in simple ones; and you will generally find, that the greater the degree of displacement of the fracture, and the greater the injury done to the surrounding soft parts, the less is the work of producing the external provisional callus confined to the periosteum. It is a curious circumstance, that broken cartilages do not unite by cartilage but by bone; osseous matter is deposited around the part, forming a kind of hoop or ferule, which is alleged to be formed by the vessels of the perichondrium. You will sometimes have an opportunity of observing this mode of union in fractures of the cartilages of the ribs. Fractures of the patella, olecranon, condyles of the humerus, and coronoid process of the ulna, generally unite by means of a fibrous ligamentous substance, and the acromion, when fractured, may also unite in the same manner.

Different bones require different lengths of time for the union of their fractures. In the upper extremities, fractures are sooner cured than in the lower ones; the ribs and clavicle are generally united with tolerable firmness in about a month, and even sooner in young subjects. Fractures of the humerus require five or six weeks for their reparation; but those of the tibia and femur are not firmly united before the seventh or eighth week. From the history which I have given you of the process of union in broken bones, you will understand that, when I speak of bones being *firmly united*, at particular periods, I allude only to that firmness which is derived from the provisional callus, and not that the definitive callus has been produced. The latter work, which may be regarded as the completion of the cure, is one that is not accomplished till a later period.

Gentlemen, the time required for the union of a broken bone will also be much influenced by the age of the patient, his state of health, and the efficiency or inefficiency of the treatment adopted. In infants, a broken bone will make as much progress towards a cure in one week, as it would in a month in an adult. When the bones of infants happen to be broken during parturition, they are generally united with considerable firmness in a week or ten days. The tendency to quick union is strongly evinced during the development of the skeleton, that is, while the individual is growing; and, I may say, that it is most considerable while this development is taking place with the greatest vigour. Hence the impossibility of keeping children quiet does not seem to interrupt the process by which a fracture unites; and however much they may move and toss themselves about, the injury is generally repaired with wonderful expedition. This is a circumstance which should always

be remembered in the treatment of fractures in children; for, if these accidents are not vigilantly attended to during the first ten days, and the position of the broken bone is neglected, you may afterwards find the process of union too far advanced to admit of the shape of the limb being rendered better again. Circumstances are different in the adult, in whom the ossific process does not actually commence till after the tenth day; a fact which led Dr. Hammick and some other surgeons to defer the application of splints during such space of time, and merely to employ cold lotions, with the view of keeping down inflammation. This practice would not be advisable in the case of children; for, after the ten days had elapsed, you would most frequently have to regret the omission of the use of splints, by means of which, in the early stage of the accident, you might have had a command over the shape and direction of the limb, but which would now perhaps be irremediably deformed.

I need hardly tell you, gentlemen, that the process of union is retarded by old age, and by every temporary disturbance of the system: such as an attack of fever or erysipelas. The union then always proceeds more slowly, or may even be completely suspended. The process is retarded also by several of those diseases, which were specified in a former lecture as predisposing causes of fractures; as for instance, certain diseases which weaken the texture of the whole skeleton, or that of particular bones, the chief of which are rickets, fragilitas and mollities ossium, cancer, scrofula, and, as some allege, the venereal disease in its advanced stages; but, with regard to this last disease, I must observe, that it is disputed whether the condition of the bones may not be brought on rather by the mercury which is given for the cure of the disease, than by the disease itself. Be this as it may, you will remember that I showed you, in a former lecture, a femur that had several nodes upon it, and I told you that the opposite femur had been broken merely by the patient's turning himself in bed while he was under the influence of mercury. With respect to rickets, I have attended many ricketty children with fractures, and, as far as my own experience goes, it would seem that union of their fractures was not materially retarded by that disease: it makes the bones give way more easily, but I do not think that they are indisposed to unite. Pregnancy is generally set down as one of the causes impeding bony union, and it is even asserted, that fractured bones in pregnant women will not unite until after delivery: but this is not always the case; for I once attended a woman, who lived in the neighbourhood of St. Paul's, who fractured both bones of her leg in the fifth or sixth month of pregnancy; yet I found that the fracture united favourably, and in about the usual time. You may therefore infer, that pregnancy will not constantly impede the process of bony union, though it may sometimes do so.

Another circumstance sometimes retarding the union of a fracture, is the lodgment of a dead portion of bone between the ends of the two fragments. In the Museum of the University are several preparations exhibiting this fact. Here is a specimen of a broken femur, with a *sequestrum*, as it is called, or a portion of dead bone situated between the two ends of the fracture, and you may observe how much this circumstance seems to have interfered with the process of union; it appears that a provisional callus had formed, but if the cure had been completed, there would have been a great deal of deformity. The next preparation shows a portion of dead bone interposed between the fragments of the tibia, which is broken at its lower part; and here is another excellent preparation, illustrative of the fact to which I am directing your attention.

Gentlemen, you will find in the writings of Schmucker, who was surgeon-general to the Prussian army, an interesting case, in which a portion of dead bone was lodged between the fragments of a broken tibia, and retarded the uniting process for eight months; at the end of which time Schmucker made an incision for the removal of the sequestrum, and then the union took place in three or four weeks.

I stated, that the continuance of a fracture in a disunited state depends sometimes on constitutional causes, and sometimes on circumstances directly affecting the broken bone itself. Among the latter causes, I may next specify a total want of apposition between the two ends of the fracture. If the bones do not touch at all, there will probably be no union, or, at any rate, the union will take place very tardily.

Another circumstance contributing to prevent union is moving the fractured limb too frequently, or even continually, by which the ends of the bone are prevented from being in steady apposition. You will find a remarkable example of this recorded by Baron Larrey. When the French army was retreating from Syria, there were among the wounded a great number of soldiers with compound fractures, whom it was necessary to place on the backs of dromedaries and camels, in order that they might travel with the rest of the army; for if they had been left behind they would have been murdered by the Turks and Arabs. They were obliged to continue their retreat day and night for several weeks, jolted on the backs of camels and dromedaries, the consequence of which was, that many of these fractures did not unite by osseous matter, and were sent to Marseilles, a year after the period of the retreat from Syria, still uncured. Too much motion of a broken limb is, then, one of the circumstances impeding the favourable union of fractures, and occasions what is called a *false joint*; indeed, one of the principal indications in the treatment of fractures, is to prevent all motion of a fractured part.

Another circumstance, impeding the union of fractures, not commonly mentioned in books, is the interposition of a portion of muscle between the ends of the broken part of the bone. I have been present at one or two dissections, in which the want of union was ascertained to be produced by this cause. In one of these instances, in which the humerus had been fractured obliquely, the lower fragment, the end of which was sharp, had been drawn up into the biceps muscle; consequently, there was no apposition of the ends of the fracture, as a quantity of muscle intervened between them.

The want of an adequate circulation in one of the fragments, is a circumstance sometimes suspected to impede bony union; and it is worthy of remark, that the greater number of fractures, not uniting by bone, are either in the patella, in the neck of the thigh bone, or in the shaft of the humerus; the reason of this fact, in respect to certain fractures of the neck of the thigh bone, I will consider in a subsequent lecture. With regard to the humerus, I may observe, that most of those fractures, which do not unite by bone, take place just below the insertion of the deltoid: here the upper fragment is pulled outwards by this muscle, while the lower one is drawn inwards by the coraco-brachiales. The failure of union, therefore, seems to depend upon the non-apposition of the ends of the fracture; and, perhaps, upon their disturbance by the action of the muscles in question. At the same time, I may remind you, that a preparation was shown you on a former evening, where a false joint followed a fracture of the humerus; the injury was not situated in the part of the bone now adverted to; but, in that case, the bone had been so weakened by the influence of scrofula on the system, that it broke spontaneously; and, under such circumstances, you may readily conceive that union by bone could not readily take place. When, however, the humerus is healthy, and a false joint is formed in it after a fracture, it is almost always at the point which has been specified, namely, just below the insertion of the deltoid muscle.

Besides these cases, false joints or union by ligament may also happen in other bones, or other parts of bones; thus, sometimes a fracture of the shaft of the femur will either not unite by bone at all, or very tardily; fractures of the lower jaw may fail to be reunited by osseous matter, or the process may be very late in its completion. Two years ago, there was a man in the King's Bench with a fractured radius, which had been in that state a long while, and there was not the slightest degree of bony union when I last saw the case. A fractured tibia, too, will sometimes not unite in the regular way: I have seen two cases, which did not unite by bone for nearly two years, though they were both simple fractures. The plans, adopted for promoting bony union in slow cases, and for the cure of artificial joints, when they happen to be produced, I will notice hereafter.

Gentlemen, having now delivered some general observations on the *first* and *second indications* in the treatment of fractures, and on the nature of the process by which broken bones are reunited, I come now to the consideration of the *third common indication*. After the broken bone has been reduced, or set, and means have been taken for retaining the ends of the fragments in apposition, (for these are the objects aimed at in the two first indications,) it is necessary, in the next place, to attend to any unpleasant symptoms or circumstances likely to arise, or which may have already followed; for example, there may be an unusual degree of pain from various causes, swelling from effused blood, a severe degree of inflammation, erysipelas, the formation of abscesses, &c. Now any or all of these circumstances may follow the setting of a fractured limb. When pain occurs, you ought to ascertain, that it does not arise from the immoderate pressure of bandages, or badly padded splints. In either of these cases, the mode of relief is manifest enough; you are to undo the bandages, and either leave them off for the present, or put them on again in a more skilful manner. For the prevention of inflammation, the chief means is undoubtedly quietude of the part, which the favourable progress of the cure requires on another account, namely, for the purpose of preventing the displacement of the ends of the fragments; but, while quietude is enforced, other measures should not be neglected; as, for instance, low diet, which, however, can only be continued for a few days, because its effects will be to retard the formation of the callus, in the same manner as too much bleeding, or any other weakening plan, is known to do. For fractures, abstractedly considered, bleeding is never requisite; but we bleed when the injury of a bone is attended with much contusion of the soft parts, a description of mischief generally greatest when the fracture has been produced by direct violence, as by a blow, or a kick. Hence, considerable swelling, and sometimes laceration of the skin and muscles, are often produced by the same violence which breaks the bone. Under these circumstances, the bandages and splints should never be tightly applied at first; and sometimes it is most advisable to refrain from making any kind of pressure with them till the inflammation has subsided, and have recourse to cold evaporating lotions, and bleeding, in a degree proportioned to the patient's age, strength, and constitution, or to the violence of the contusion under such circumstances. Many good surgeons do not think it right to apply splints at all for some days, but endeavour to keep off and subdue inflammation by means of cold evaporating lotions, bleeding, and leeches; they put the limb or part in an eligible position, and, applying no bandages, merely lay a piece of linen on the

part wetted with some cold lotion. As far as I can judge, the practice of omitting the use of splints in the early part of the treatment is not generally commendable, though the inflammation and swelling may occasionally render it indispensable. As the common maxim, I should say, that the sooner the splints are put on the better; but they must not be applied too tightly at first. As for bandages, they had better not be put on when much inflammation and swelling prevail: folded linen, wetted with a cold lotion, will be much more useful, and not attended with risk of doing harm. Costiveness should be obviated; but as fractures of the lower extremities are liable to a hurtful degree of disturbance from frequent purgation, it is not advisable to carry the practice thus far. It is on this account that fracture-beds are particularly useful, because they allow the patient to obey the calls of nature, without any disturbance of a broken limb. However, I scarcely need observe, that it is only in the power of a very limited number of patients to have the advantage of such beds; and at least seven out of eight persons, to whom you may be called, will not have the means of procuring the accommodation. Leeches and cold lotions, then, are the topical remedies for the inflammation coming on in the early stages of fractures; after some time, if there should be any disposition to the formation of abscesses, fomentations and even poultices may be applied, but leeches and cold lotions are preferable to these in the commencement of the stage. You must be sure, however, not to allow too much motion or disturbance of the limb to be produced in the employment of these, or any other applications; and if they cannot be put in practice, without this disadvantage, they had better be dispensed with. The best way of using cold lotions will be to squeeze them out of a sponge upon the eighteen-tailed bandage, or folded linen, which may be upon the limb, so that the fluid may pass between the splints, and wet the bandage or linen without the splints being taken off at all. When the limb is well set, its position right, and the bandages and splints well applied, the less it is moved the better; this you may set down as an axiom in surgery, and it is a principle, which is so much valued by Baron Larrey, that, after reducing the fracture, and putting it into the proper posture, he then makes use of an apparatus, which is not taken off till the bone has united. It is curious also to learn, that this practice is followed even in compound fractures; but you are to remember, that the apparatus is soft and flexible at first, and being wetted with a solution of acetate of lead, to which is added a little camphorated spirit and white of egg, it is afterwards converted into a stiff firm case, precisely corresponding to the shape of the limb, and consequently well adapted to keep up equable pressure upon it, without chafing or hurting the skin. Baron Larrey was led to adopt this mode of practice, in consequence of the necessity he was frequently under of moving patients in the army from place to place with bad compound fractures; for, by means of the apparatus here referred to, they could be moved any distance with the greatest security; and I may state, that his son, who has published a treatise on fractures, and in recommendation of the same principles, gives an account of several individuals who were moved, with severe compound fractures, great distances without injury; one individual had been brought to Paris from a place a hundred miles distant, the day after the accident.

If no pain should be produced by the splints and apparatus, you cannot do better, I think, than allow them to remain, and, at all events, you should but seldom disturb the limb for this purpose; however, with the ordinary plans pursued in this country, it would be unsafe not to examine the limb now and then, and, more especially, between the tenth and twenty-fifth days; for, if the process of ossification in the provisional callus, were allowed to go on beyond this period, the fracture might unite in a bad position, and such deformity be the result as would not afterwards be remediable. On the other hand, if the state of the limb be vigilantly attended to till the bone has *knitted*, as the expression is, less caution will afterwards be necessary, as the risk of the ends of the fracture changing their respective situations will now be considerably lessened. The fact is, that, with the apparatus commonly employed in this country, you cannot sufficiently depend on the treatment without constant vigilance, for any spasmodic action of the muscles, or any alteration of the position of the limb, may displace the fragments. I recommend you, therefore, to keep a good look out during the early stages of the treatment. In short, I am of opinion, that, until some apparatus be invented, which shall be as efficacious as Baron Larrey's is represented to be, you should yourself watch the position of the broken bones with the greatest care till the end of the third or fourth week. In children, as I have explained, this will be particularly necessary for the first fortnight. The eighteen-tailed bandage is always better than a common roller for fractures of the lower extremities, as it may be undone and re-applied without the slightest disturbance of the limb.

Now, gentlemen, in order to get through this course in the manner I could wish, it is my intention to lecture, next month, four times a week, and to go on at that rate till the end of the session, but if we should yet require more time, I will show the operations in the morning and continue the evening lectures as usual.

CLINICAL LECTURES

DELIVERED BY

DR. WILLIAM STOKES,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832-33.

LECTURE IV.

Pathology and Treatment of Arthritis.

Gentlemen,—The first case to which I shall draw your attention, is that of a young woman in the fever ward, near the door, labouring under acute arthritis. She came into the hospital some days back, with a severe inflammation of the large joints, which she described as very painful, and extremely apt to change its place, showing a decided metastatic character. One of the most remarkable features of acute rheumatism is this metastasis of inflammation; you have one joint attacked to-day, on to-morrow it will be quite free from disease. But when the acute symptoms have passed away, and the chronic stage has come on, the disease loses in a great measure this disposition to change its place, and becomes much more fixed. One of the most formidable characteristics of rheumatic arthritis is this tendency to metastasis. Where the inflammation is transferred from one joint to another, the case, though perhaps troublesome, is not dangerous, but when it suddenly quits the articulations, and seizes on some important viscus, then, indeed, the metastasis puts on a very alarming aspect. Thus we may have a violent inflammation of the peritoneum, or of the pericardium, supervening on arthritis. You will find in the Dublin Hospital Reports, a case of peritonitis, detailed by Mr. M'Dowel, which came on in consequence of metastasis of an acute rheumatic affection of the joints; and this is the reason why you should exercise the utmost vigilance during the progress of such cases; and whenever you discover any subsidence of the disease in the joints, take an immediate review of the condition of the viscera, so that you may be able to meet and obviate any untoward symptom with the utmost promptitude.

Having directed your attention to this case, of which it is unnecessary that I should enter into any details, as I believe you are all sufficiently acquainted with it, I will make a few remarks on the mode in which arthritis is generally treated by modern practitioners. I am still opposed (and this is a point I would endeavour to impress, for nothing has as yet occurred to abate my opposition,) to what is called the specific treatment of rheumatic arthritis. The principle of treatment in acute arthritis, according to my opinion, and this strikes me to be the true one, is to treat every acute arthritis as an attack of inflammation. Hence, if I meet with a patient of robust habit labouring under the first or inflammatory stage of the disease, with considerable tenderness and swelling of the joints, quick strong pulse, and feverish excitement, I never have the slightest hesitation in bleeding. I immediately employ venesection, and I find it justified by two well marked results, relief to my patient, and a buffy state of the blood. In these cases, do I look on general bleeding as the principal means of relief?—No. I view it only in the light of a preparatory step to local bleeding, which is the grand means of treating the disease in the early stage; I am not so sanguine as to expect a complete cure from general bleeding, it is only in the viscera that you can cut short inflammation by the timely employment of this powerful agent. I take away blood from the system in arthritis, not with the hope of arresting and removing the disease, but for the purpose of bringing the patient into a state fit for treating his complaint with the best prospect of success. Having therefore premised venesection, I proceed in the next place to leech, and I follow the inflammation in this way from joint to joint. It is surprising how much you can modify the general disease by hunting the inflammation, as it were, from one part to another. Suppose you find the knees affected to-day, apply leeches, and the swelling will quickly disappear; if it appears in the elbows to-morrow, leech again, and in the course of a few days you will be pleased to find the fever and swelling much diminished, and scarcely any thing remaining but a degree of local pain. In all acute cases, my practice is to have recourse to antiphlogistic treatment, low diet, local and general bleeding. When the patient is of a weak and delicate habit, and general bleeding appears hazardous, I content myself with local depletion. It has been usual with practitioners to endeavour to relieve the acute symptoms by the use of diaphoretics. I do not deny that these may sometimes succeed, but I must say that I have never seen them unequivocally successful. I know that it is a common practice to give large doses of antimony, or James's powder, without premising venesection or leeching; but I do not look upon this mode of treatment as rational and scientific, nor do I think it productive of much benefit. Antimonial preparations are administered with the intention of promoting diaphoresis, this evacuation having been long considered as the most obvious means of relief, yet do we not every day see cases of arthritis accompanied by profuse perspiration, without any perceptible amelioration. Sweating is a proof of determination to the surface of the body, and in the early stages, as every thing that determines towards the surface increases the pain, swelling, and heat of the affected parts, it is plain that perspiration can afford no relief to arthritic inflammation, and hence the failure of the diaphoretic plan. I mentioned on a former occasion, that in several cases, par-

ticularly in three or four which occurred in this hospital, I had employed large doses of tartar emetic in the treatment of acute rheumatism, and with considerable success. You will also see, in the second edition of Laennec's work on the stethoscope, an account of a case of acute rheumatism treated by tartar emetic. Still I am not prepared to say that it is a practice which should be generally followed, and I can point out cases in which it could not be safely employed, that is, where there is evidence of inflammation in the stomach or bowels. Tartar emetic seems to be a substance which has a strong tendency to excite intestinal and gastric inflammation. But when we have simple cases, without any symptom of intestinal disease, tartar emetic in large doses may be employed with signal benefit. After the fever, swelling and tenderness of the joints have yielded to the antiphlogistic treatment, I generally prescribe the sulphate of quinine, anodyne liniments, or stimulating frictions with oil of turpentine, croton oil, and sometimes warm baths.

There is one remedy employed in the treatment of arthritis, which demands a particular notice for many reasons; I allude to colchicum. Gentlemen, my impression with respect to this medicine is, that it sometimes works wonders in diseases of the joints; but, on the other hand, I feel convinced that there are few remedies taken singly, the employment of which is so much abused. I have seen very bad results from this abuse; I have witnessed them in hospital and private practice, and as I am anxious that you should have some fixed principle to guide you in choosing or rejecting it as a therapeutic means, I will lay down one rule respecting the employment of colchicum. Never use it if you can cure your patient without it; when a patient gets well without colchicum, it is much better for him and for his physician. A common cause of the very extensive employment of colchicum, arises from the idea that we have absolute specifics in medicine. Do not suffer yourselves to be imposed on for a moment by a notion so vague and untenable; the more you advance in pathology, the wider your range of observation extends, the more deeply will you be impressed with the conviction that there is no such thing as specificism, properly so called, in medicine. Yet this is a doctrine to which many persons are inclined to assent, and which many have admitted; if you should chance to entertain any notion of this kind, believe me, the sooner you get it out of your heads the better. Because colchicum has been frequently found to relieve gouty inflammation of the joints with extraordinary rapidity, it has been cried up as a sovereign remedy for all articular inflammations; and being much easier to prescribe specifics than to investigate symptoms, colchicum is looked upon as a sheet-anchor in all inflammatory affections of the joints, whether rheumatic, gouty, or syphilitic. One of the most common things in the practice of medicine is to order colchicum on the appearance of an acute attack of rheumatism. I do not know whether this is the case exactly at present, but it is but a very short time since this practice was almost universal. Colchicum is a two-edged sword, it may accomplish good but it may also effect mischief; it may cure some cases of arthritis, but this is not unfrequently purchased at a very dear price indeed. I am not aware of the modus operandi of colchicum, a knowledge of its specific action on the system is still a desideratum in medicine, like a great many other remedies we know very little about it. But, judging from its obvious and known effects on the system, I think that giving it in the early stage, where there is an urgent demand for antiphlogistic treatment, is bad practice. What occurs when it has been employed is, that it either proves to be completely inert and gives no relief, or it produces a violent action on the mucous membrane of the intestines, and then you have a temporary subsidence of the articular inflammation. One of its most common effects is the production of violent purging. Some persons after taking it will have twenty or thirty alvine discharges in the course of twenty-four hours. Now, what is the meaning of this? It means that the mucous membrane of the intestinal tube has been subjected to a very violent stimulus. I do not mean to say that this stimulus is invariably accompanied by enteritis, or that every case of purging from the use of colchicum is a sample of inflammation of the intestines: but when you purge a patient violently, who is labouring under an inflammatory diathesis, if you do not excite actual inflammation you certainly produce something very like it. The result of your treatment is, therefore, the subsidence of arthritis, the articular affection is certainly removed, but it is very often replaced by enteritis, and this I believe is of no uncommon occurrence where colchicum has been given in the early stage of the disease. This subject involves, gentlemen, some very important considerations, and I shall, therefore, dwell longer upon it. You remember that, soon after I took charge of the medical wards, we found a patient, who had been using colchicum, suddenly attacked by very severe diarrhœa, which was immediately followed by the removal of his arthritic pains. You recollect, that he experienced for a very considerable time symptoms of intense irritation of the intestinal mucous membrane, and that all our efforts were directed to the relief of this new disease, that, in fact, we were obliged to treat it as a case of enteritic inflammation. You are aware, that the subsidence of one disease coincident with the appearance of another, is, in medical phraseology, termed revulsion. Suppose, for sake of an illustration, a patient has disease of the liver, and, during the progress of his complaint, diarrhœa comes on, the hepatic symptoms subside, they being replaced

by an enteritic affection, this is an example of revulsion. In the same way, if a cutaneous eruption supervenes on disease of the lung, the pulmonary symptoms disappear, and this affords us another instance of the same kind. The subject of revulsion is one of the highest importance in the study of medicine, presenting as it does so many curious and interesting facts for our consideration, when engaged in investigating the nature and habitudes of disease. When we look to its general phenomena, with the view of forming some arrangements which may assist us in obtaining a knowledge of its various forms, we find that it may be divided as follows. 1st. Where the change is from one viscus to another, as for instance, from the liver to the intestines, or suppose a patient, who has violent bronchitis, gets diarrhœa, or has pneumonia, and this subsides on the supervention of gastritis, or intestinal irritation, and this is exchanged for cerebral disease; these are examples of the first species of revulsion, namely, the visceral. The next species is the internal, or that which passes from the surface of the body to some of the viscera. Thus we see the eruption in a person, labouring under skin disease, rapidly subside, and immediately the liver, or stomach, or brain becomes inflamed. A child gets measles, the eruption is spread all over the surface of the body, he is exposed to cold, the rubeolar efflorescence immediately disappears, and violent pneumonia succeeds. These are examples of the second form of translation of disease from the surface to the viscera. The third kind is exactly contrary to this; it is a change from the viscera to the surface, and this is the species which it is most important for the practical physician to study. If we compare the three kinds together, with the view of ascertaining which is the most favourable, we shall find that the third species is by far the safest and most productive of relief to the patient. And why is this so? Because it implies a change of disease from an essentially vital organ to a part, the healthy action of which is not so necessary to life. Let us consider the examples of the different species and see what their nature is. The first kind, or change of disease from one viscus to another, is frequently useless and may be dangerous. If a man has bronchitis, or pneumonia, which disappears on the occurrence of gastritis, or gastritis which vanishes on the supervention of inflammation of the brain or its membranes, he gains very little. The first kind of revulsion is, therefore, either useless or dangerous. The second species, or that which consists of a change of disease from the surface of the body to some of the viscera, is always attended with considerable danger, and is one of the worst modes in which revulsion may occur, from the great importance of the organs which are vicariously engaged. This explains the just alarm which is always felt on the sudden retrocession of gout, measles, and many other diseases of external parts, and also the danger which frequently attends the suppression of cutaneous transpiration. The third kind of revulsion is always favourable. One of the most marked and interesting examples of it is seen in the first or cold stage of ague. A man, at the commencement of an attack of ague, is labouring under violent feverish symptoms, his lungs are affected, his brain congested, he has tumefaction and engorgement of the liver and spleen, he, in fact, labours under congestion of almost every viscus, and is suffering from the simultaneous affection of all, but as soon as determination to the surface takes place, and he has a copious discharge from the skin, the entire train of distressing symptoms vanishes, the fever, the congestion of the brain and lungs, the tumefaction of the spleen, and the engorgement of the liver, all subside. This is an example of the third species of revulsion, from the viscera to the surface. A familiar instance also is seen in the effect which a blister produces in abating internal inflammation by its action on external parts. In the same way, when a patient gets an attack of gout in the stomach, we can frequently afford the most decided relief by plunging his feet into a strong mustard bath, and bringing back the disease to the extremities. This last form of revulsion is the only safe and favourable one, the other kinds are always more or less hazardous. Revulsion from one viscus to another, or from the surface to any of the viscera, is either perilous or injurious, but when the translation is from the viscera to the surface the result is very different, and positive good is often effected. Now observe, that in arthritis we have the surface, and what may be termed external parts, engaged. If you bring on revulsion, and remove the disease from the surface, you will certainly purchase its removal at a very dear price; you will cure the disease, but this will frequently be done at the risk of bringing on inflammation of the peritoneum or intestines, or, in some cases, pericarditis. You subdue the articular inflammation, it is true, but your patient may die of visceral disease. Hence you are to be careful how you cure such affections, and that you do not accomplish your purpose at the expense of visceral inflammation; and this is what forms, in my mind, one of the strongest objections to the use of colchicum and tartar emetic in the early stage of arthritis. Even under the antiphlogistic treatment we cannot use too much caution; and a prudent physician will always have an eye to the state of the viscera. Bear in mind this one general rule,—whenever, during the progress of a case of arthritis, the inflammatory affection of the joints rapidly subsides, never omit passing in review the different viscera which are known to become secondarily engaged, and carefully examine the state of the intestinal canal, heart, and lungs. In fact, whenever you notice the sudden disappearance of any disease which has existed for some time on the surface of the body, ascertain im-

mediately the condition of the internal organs; for, instead of an external disease free from danger, you may have a violent inflammation set up in some of the three great cavities. If you find any visceral irritation, your rule is instantly to discontinue any treatment calculated to remove the affection of the joints; rather, on the contrary, seek to restore it as expeditiously as possible, and lose no time in meeting, with the utmost energy, the threatening phenomena of visceral disease. If we compare idiopathic with metastatic inflammation, we find that the former is always less dangerous than the latter. How much safer and more manageable is pneumonia from cold than that which arises from the retrocession of measles? Enteritis produced by cold is a mild disease compared with that violent intestinal inflammation which supervenes on erysipelas or burns. The pericarditis, which is idiopathic, is far more easily managed than that which originates in the metastasis of rheumatism. Be vigilant, therefore, on the subsidence or retrocession of any external acute disease; look to the state of the organs contained in the three great cavities, and be prepared to check any symptoms of visceral inflammation with the greatest promptitude.

I shall now make some remarks on one of the most important cases at present in the hospital: it is a case of typhoid pneumonia in a man above in the fever ward. It will give you some idea of this man's constitution, when you recollect that his occupation has been that of a waiter in a public house, and that he is an habitual drinker of whisky. About four months ago he was in this hospital labouring under delirium tremens, and since that period he has had an attack of fever, for which he was some time a patient in Cork-street Fever Hospital. He was admitted for his present attack on the sixth of February; and the history which he gives of it is, that he caught cold by falling into a river, and soon afterwards had general rigors, cough, distressed respiration, pain across the chest, and all the other symptoms of a severe pneumonic affection; and as far as we could perceive he had also considerable gastric irritation. A few days after his admission the latter disease became more developed; he was attacked with vomiting, pain in the stomach, and desire for cold water as drink. Thus it was plain, from the symptoms of irritation in the stomach and lungs, that we had two diseases to manage, gastritis and pneumonia. He complained of pain in the head, and coughed incessantly. His face was flushed, skin hot, pulse full, and very compressible; his tongue dry and coated, his belly lymphatic; there was some epigastric tenderness, great thirst, with desire for cold drinks, and loss of appetite. His respiration was very high; and Mr. Lees, who attended the case, detected extensive pneumonia in the lower portion of the left lung on the day after his admission.

On this case I intend to make a few observations; and I am anxious to direct your attention to it, as affording a good specimen of a disease which I believe is not well understood. This disease is called typhoid pneumonia in this hospital, from the extraordinary prostration of strength which accompanies it, an occurrence which is never witnessed in any instance of common pneumonia. From this remarkable depression of the vital powers, co-existing with an inflammatory affection of the lung, we term it typhoid pneumonia; but if you were to attend to this circumstance alone, you could have no accurate idea of the disease. You must go farther back, and seek for its cause. You have seen repeated instances of pneumonia occurring in strong and healthy constitutions, and you must, I am sure, be struck with the difference between them and the case at present under consideration. In the former instance you have the pneumonia appearing in a healthy constitution, and exhibiting all the characteristics of a sthenic disease; here you find it in a habit debilitated by sickness and intemperance. The most remarkable features in this typhoid pneumonia are, therefore, the peculiar habit in which it occurs, the early period at which we find prostration (an unusual thing in common pneumonia); and another thing, which is still more singular, that is, the actual extent of the disease is sometimes very small, and by far too trifling to account for the alarming violence of the symptoms. You may, therefore, lay it down as a rule, whenever you find pulmonary disease of little extent combined with remarkable prostration of strength, it is in all probability typhoid pneumonia. Besides prostration of strength, we frequently notice other symptoms exhibited during the progress of this disease, and giving proofs of its dangerous nature; these are delirium and subsultus tendinum. In fact, it appears to be a very peculiar disease, and very unlike in all its peculiarities to the common form of pneumonia. In the common form you have a full, strong, bounding pulse, which urgently calls for the employment of the lancet; and when venesection is performed, the patient is found to bear the bleeding well; we are able to take away a large quantity, and the blood is well buffed. But in the case before us, we find that though the inflammation is rather extensive, the pulse is feeble, and the skin cool. We also find that after the loss of six or seven ounces of blood, in some instances less, the pulse becomes so frightfully rapid and weak, that we are obliged to desist from taking any more blood; and this, I think, is a very strong proof of the extraordinary debility which characterises typhoid pneumonia. On the first blood which we took from this man there was some slight appearance of buffy coat, but this is rare; generally speaking, there is scarcely ever any sign of the inflammatory crust, and the coagulum is soft, ill-formed, and easily broken, as in typhus fever. These, you perceive, are very remark-

able differences. Let us go further.—With typhoid pneumonia we have most commonly evidences of the complication of other organs. We find great thirst, as in this man's case, a foul, dry tongue; epigastric tenderness, swelling of the belly, and very often diarrhœa. We have, therefore, two diseases to deal with, inflammation of the texture of the lungs, and disease of the digestive system. But, you will ask, is it fair to conclude that in typhoid pneumonia we have this state of the digestive system? All the phenomena of the disease would lead us to think so, but we are not dependent on symptoms alone, we have other information to guide us; for, upon examination after death, we have discovered in almost all such cases positive evidence of inflammation of the stomach or intestines, namely, a high degree of vascularity, thickening of the mucous coat, and, in some instances, actual ulceration. This is the disease which you will see noticed in old medical works as nervous or gastric pneumonia. It is of very frequent occurrence in Dublin, where there are so many persons exposed to its causes—poverty, intemperance, and cold. About two years ago it was almost epidemic, for most of the cases of chest disease which were taken into this hospital showed more or less of its character.

With regard to the treatment pursued in the case before us, it was that which is usually employed here on similar occasions. We cautiously took away a few ounces of blood from his arm; we next applied leeches to the side, and gave free doses of calomel and opium every third hour, in order to affect the system as quickly as possible. On the third day a blister was applied, and the bowels have been kept open by the use of emollient injections. The day before yesterday we found him weak and low, his features contracted, tongue moist, expectoration viscid, the stethoscopic signs of disease of the left lung still continuing. We then commenced giving the decoction of polygala with carbonate of ammonia, and small quantities of wine. Here is another peculiarity in this disease; you will frequently, during its progress, be obliged to have recourse to stimulants and wine. To-day this man is somewhat improved; a large portion of the lung, which was before dull on percussion, is now clear; the bronchial respiration is less extensive, and there is certainly a change for the better; still his condition is unsatisfactory: his pulse is quick, and his appearance typhoid. There is one point in his case, which we have remarked this morning,—his ptyalism is increased, and this is a favourable symptom, as I shall shortly explain to you.

Now, gentlemen, with respect to bleeding in typhoid pneumonia, you will find that some patients will not bear it at all. Generally speaking, when you can you should never omit taking away blood from the arm, but the quantity must always be small. You cannot open a vein and take away a large dash of blood: if you do so, your patient will be likely to sink after the operation. You must bleed with caution; and if, after taking away four ounces of blood, you see your patient likely to faint, you must tie up his arm immediately. I have often seen persons labouring under this disease faint before they had lost quite five ounces of blood. We are therefore compelled to rely chiefly on local bleeding and blistering in the early stage of this form of pneumonia. You must also pay constant attention to the state of the stomach as well as that of the lungs; and it has frequently happened that we have been obliged to direct our treatment to the chest one day, and to the belly the next; varying our plan of operation, and bringing our curative means to bear on that point which threatened the greatest danger.

One very important rule in the treatment of typhoid pneumonia is, not to give any tartar emetic. I am anxious to impress this on you, because Laennec states that the combination of gastro-enteritis with pneumonia does not prevent us from using tartar emetic. If Laennec had lived longer I think he would have corrected this mistake. In any case where this complication exists tartar emetic is almost as bad as poison. I believe one of the principal reasons which induced Laennec to support such an opinion was his hostility to the doctrines of the physiological school. We have long since rejected its employment in the treatment of this disease; we bring our patients under the influence of mercury by free doses of calomel and opium; and if we find its internal use produce any exasperation we omit it immediately, and trust to friction with mercurial ointment, local bleeding, and counter-irritation.

With respect to the action of mercury in this disease, there is one circumstance not sufficiently dwelt upon. In a patient who has been taking mercury for this complaint, you will frequently observe that one day his gums are sore and his breath evidently fetid, the next, you will find all these symptoms gone. In the morning you employ some antiphlogistic treatment, and in the evening the local effects of mercurialisation reappear, but the next day you are surprised to find them again absent. If we look closely to the case we shall perceive an alternate alleviation and increase of the pneumonic symptoms corresponding with the absence or presence of the mercurial influence on the system. When we observe this intermittent salivation we generally form an unfavourable prognosis. Out of a great many cases in which it occurred only one recovered; while, on the other hand, where there is any evidence of the increase of the mercurial influence we look on it as a favourable omen; and this is the reason why I said this man had a better prospect of recovery, from observing, this morning, that his salivation was increased.

In typhoid pneumonia we commence the

use of polygala and carbonate of ammonia much sooner than we do in the ordinary cases of pneumonic disease. We find great benefit from this combination: I am very much inclined to recommend it; and when properly employed it is one of the best pectoral medicines I am acquainted with. The cases for which it is peculiarly well adapted are bronchitis, with copious muco-purulent expectoration, and the advanced stage of this typhoid pneumonia. You have observed, that on the second day after our patient began to use it, the chest became clearer on percussion, and there was very considerable improvement. It answers best when given at the time you are obliged to give up the antiphlogistic treatment as no longer admissible. So long as we can bleed and leech, its employment is unnecessary, or even contra-indicated; but when this period has gone by, and we find it necessary to support the strength by giving a little wine, and allowing a more nutritious diet, we find the decoction of polygala, with carbonate of ammonia a most valuable combination.

One word more respecting the prognosis in this disease. Where vigorous treatment cannot be safely employed you may take it as a settled maxim, that the prognosis is always doubtful, if not bad. The disease is one of extreme danger; it requires great attention and skill in its treatment; and even when patients recover from it, their convalescence is slow and dubious. You can understand this when you consider that the character of the inflammation is principally that of debility.

At our next lecture I intend to bring some important cases before you. I beg leave to remark here, that it is my intention to give a stethoscopic prize at the end of the session. The other prizes, which Dr. Graves and I have before conferred for clinical attainments, will be also distributed this year to those gentlemen who send in the best reports of such cases as they may select for the purpose, provided, in addition to the best report, their diligence in hospital attendance has been also remarkable.

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

At St. Thomas's Hospital, April 1, 1833.

LECTURE IX.

Chlorosis—Disease of the Heart, with Dropsy —Rheumatic Inflammation of the Brain —Bronchocele, with Dyspnœa—Acute Bronchitis—Hypochondriasis.

Gentlemen,—During the last week ten of my patients have been discharged—four females and six males. Of the females, two laboured under chlorosis, one under disease of the heart, with dropsy, and one was affected with otorrhœa. Among the males, there was a case of vertigo arising from inflammatory action of the brain in consequence of a blow on the head; one of rheumatic inflammation of the brain; another of bronchocele, with dyspnœa; a third of bronchitis acuta; a fourth of chronic inflammation of the larynx; and a fifth of hypochondriasis.

Of the two cases of chlorosis the first was that of Harriet Sawyer, a servant, aged 24, who was admitted into Ann's Ward on the 7th of February. She stated that she had been ill six months, complained of great general debility and listlessness, pain of the head, with throbbing of the carotids and temples. On any exertion she had palpitation of the heart, and great dyspnœa when at all excited; pain in the chest, loins, and sacrum; aching of the knees in walking; legs slightly œdematous, especially towards evening; fluttering sensation in the stomach; appetite tolerable; flatulence and oppression after food; tongue tolerably clean, but slightly œdematous, bearing the impression of the teeth; the tongue, fauces, and lips, are of a very pale colour; countenance dejected, of a greenish-yellow hue, with a dark areola round each eye; slight cough, with expectoration of mucus; flabbiness of muscles; and though rather a stout girl, says she has become much thinner; has not menstruated from the commencement of her illness.

Now, this was a well-marked case of chlorosis, a disease we very frequently meet with in the hospital, and indeed of so common occurrence, that it is scarcely possible to walk the streets without seeing it, most commonly attacking females about the period of puberty, or soon after; but occasionally we find it at a more advanced period of life, not only in single, but also in married women—not only in females, but sometimes in males. Now, you will observe, that in this case it was accompanied, from the first, by amenorrhœa; and it is so often attended either by entire suppression or retention, or by some deficiency either in quality or quantity, or both, of the menstrual secretion, it being thinner, paler, sometimes scarcely coloured, and scantier, as well as by irregularity of occurrence, that some nosologists have considered it as merely a variety of amenorrhœa; and therefore naturally leading to the inference that it is dependent on retention or suppression of the menses for its cause, and consequently originating in some disordered state of the uterus. This, however, is certainly erroneous, because we very frequently meet with cases of chlorosis most distinctly marked, and yet unattended by retention or suppression, while, as I before remarked, we observe precisely the same disease in males. That the function of the uterus in this affection is always more or less deranged there can be no doubt, but it does not appear to me to be more so than that of other organs, as the stomach and bowels, the liver, heart, lungs, brain, and the whole of the nervous system; for the headach, dejection, and listlessness—the palpitation, cough,

and dyspnœa—the variable depraved capricious or voracious appetite—the flatulence and dyspepsy—the torpid and irregular state of the bowels, as well as the depraved secretion of bile, denote quite as much derangement in these respective organs as in the uterus.

Now, the proximate cause of chlorosis is a defective state of the blood, both as regards quantity and quality; the quantity of the circulating mass is diminished—it is thinner, poorer, more watery than healthy blood—there is a great deficiency of the red particles, while the relative proportion of the serum is superabundant, a fact which you can prove any day by taking an ounce of blood from any chlorotic patient in the hospital; and you will find that it will separate into a proportionably large quantity of serum, with a very small portion of crassamentum. Sometimes the colouring matter is so deficient, that if the finger is pricked, or a drop of blood flows from the nose, it will scarcely colour the handkerchief:—the disease is, in fact, a state of imperfect anæmia; but upon which of the organs or tissues, concerned in the process of sanguification, it depends, I confess I am at a loss to say.

The predisposing causes may be moral, or physical, or both. For example; any long-continued depression of the mind, whether from love, ungratified passion, or from any continued source of mental anxiety. But the most common cause is to be found in sedentary employments in small, crowded rooms, where the air is necessarily the most impure, such as young milliners and mantua-makers, who are commonly confined for many hours, and accordingly we find the disease of frequent occurrence among them, as well as those who work in crowded manufactories, where the atmosphere is equally impure. Insufficient food is also another predisposing cause, or though not so, still not sufficiently nutritious; excess of acids; want of attention to the alvine discharge; indulgence in the habits of indolence; in short, every thing which tends to weaken and relax the tone of the system. Another, and by no means a very uncommon, cause is self-pollution. I have seen many in whom I have had no doubt in my own mind of this being the case, and, in two or three instances they have confessed it to me. I need not say that there is very little hope of any medicinal means being of service unless such practices be discontinued.

With regard to the prognosis, unless it be complicated with some organic disease, it may be rarely other than favourable, though, as the disease is always chronic, it is often a considerable time before perfect recovery takes place.

The treatment consists in removing the patient from any of the ordinary physical predisposing causes, and in endeavouring to obviate the moral. The diet ought to be good, nutritious, and generous, but never given in sufficient quantity to oppress the stomach, and thus retard digestion; the bowels ought to be daily evacuated; tonic medicines, at the same time, are necessary, and the best tonic you can employ is iron, either alone or where the appetite is deficient, and the digestive powers much weakened, in combination with some of the vegetable bitters,—as quina, quassia, gentian, or calumba. Of the various preparations of iron, though all of them may be employed with advantage, I myself prefer the sulphate; still cases may occur where it may be right to employ some of the others.

Should there be much effusion into the cellular membrane, or into any of the cavities of the body, I should then give that preparation of iron, which would not only act as a tonic, but which would be likely to increase at the same time the secretion from the kidneys, and for this purpose I should prefer the tartrate of iron. Again, if there was great coldness of the extremities, with languid circulation of the body, I should have recourse to the ammoniated tincture of iron, in consequence of its combination with ammonia, rendering it a more active diffusible stimulant, or some of the sulphate may be given in combination with myrrh, though where an active stimulant is necessary the former is the best preparation, the remedial means must of course be continued until all the symptoms have vanished.

In some cases, recovery after a few doses of iron is remarkably rapid, and you may daily observe the pallid, wax-like hue yielding to the return of the natural appearance of flesh and blood.

In the treatment of this disease you must remember that you will continually find patients complaining of a fixed pain in one or both sides, most commonly in the left, just below the ribs, and aggravated by pressure; or of acute pain in the head or chest, and being at the same time anxious to lose blood as a means of relief. Now, if you do take away blood you will do harm, by adding to the cause. As the tone of the system is restored, the pain, you will find, will cease.

Now, these pains are not unfrequently mistaken for inflammation of the liver, and treated as such. It is not many months since that I witnessed a striking example of it in my own neighbourhood. I was requested by the mother to visit a young lady who had just returned from a long residence at one of our fashionable watering places, and who, she feared, was in the last stage of disease of her liver, for which she had undergone a series of leeching, cupping to the right hypochondrium, together with a course of mercury and cathartics, but without making the slightest impression on her disease, which she feared must ultimately terminate fatally. Upon being introduced to my patient I rejoiced to find that there was not the slightest proof of disease of the liver, but that it was simply a case of chlorosis, certainly not benefited either by the bleeding or mercury; and feeling assured that there was no organic disease, I did not

hesitate, even at my first visit, to assure both her mother and herself that she would be well in a few weeks, a prediction which was verified by merely ordering her a generous diet, together with sulphate of iron and sulphate of quina combined, with a sufficient quantity of sulphate of magnesia to keep the bowels open.

We occasionally, though rarely, meet with cases of chlorosis, where inflammation of some organ or tissue does actually occur, and then the disease assumes a formidable character, because, from the enfeebled state of the system, it is less able to hold out against the ordinary effects of inflammation, and change of structure is more likely to be the consequence.

Now, under such circumstances, useful as mercury is in the treatment of ordinary inflammation, you will find it here do infinite harm, and you should never employ it; the practice most likely to be successful is, to combine the antiphlogistic with the tonic plan of treatment, that is, deplete locally by cupping-glasses or leeches, and using counter irritation by blisters, &c., whilst you still persevere in the use of tonics and tolerably nutritious diet.

With regard to exercise, passive exercise in the open air, either in a carriage or on horseback, (where it can be borne,) is always of service, if the weather permits, in increasing the general strength of the system. Active exertion (I mean exercise to fatigue) ought always to be avoided. It is by no means uncommon to see young females suffering under this disease, and their friends endeavouring to stimulate them to exertion beyond their power, under the idea that their disinclination to move proceeds from sloth and indolence, when, in truth, it really arises from absolute deficiency of power; and you might as well attempt to recruit the exhausted energies of a jaded post-horse by the application of the whip and spur, as to suppose that you could renovate the power of a chlorotic female by compelling her to active exertion.

Now, the case I have been speaking of speedily got well under the sulphate of iron; at first I gave her the carbonate in doses of one drachm, four times a day, but after taking it a few days, finding that it rather oppressed her stomach, I changed it for the sulphate, beginning with two grains every six hours, and eventually increasing by a grain for each dose, to five grains every six hours; her bowels were kept open by five grains of the compound extract of colocynth, given every night; she was allowed meat daily, and a pint of porter. At the end of three weeks under this treatment she was so much improved, felt so well and stong, and her colour so natural, that I thought I might now with propriety venture to stimulate the uterus locally with the intention of restoring the menstrual discharge; for this purpose ℥xij. of the liq. ammoniæ were injected into the vagina three times a day; this was commenced on the 2nd of March, and as it produced no sensation of heat in the vagina, it was gradually increased from ℥xv. to ℥xviij., ℥xxi., and finally to ℥xxv., this latter quantity did produce a considerable, though bearable, feeling of heat, and therefore it was not increased. On the 20th, having then used it eighteen days, but without any return of menstruation, I ordered in addition one ounce of the oil of turpentine in gruel, to be thrown up the rectum every day, as a means of still further stimulating the uterus, through the sympathy which exists between contiguous parts; this was continued five days, when the catamenial discharge took place, and she was dismissed quite well on the 28th, with directions to continue the iron for a fortnight longer.

You will observe, that I did not attempt to stimulate the uterus until her general health had nearly returned to its natural state, until, in fact, her blood had become natural, both in quantity and quality; I mention this merely for the purpose of reminding you that until such a change in the blood has taken place, that it would be perfectly absurd to attempt stimulating the organ by any medicinal agents; as soon, however, as I believed that the suppression of the menses merely continued from a torpid state of the uterus, then I did not hesitate to employ those means, and with the best effects. The other case of chlorosis occurred in an older woman, Mary Grant, who was admitted into Mary's Ward also in February; she was thirty-eight years of age, had been ill six months, and dated her attack from the period at which she had been terribly frightened, in consequence of her cap having caught fire while stooping over a candle, showing the effect of moral causes. In her the countenance was not so thoroughly characteristic of the disease as in the former case, but there was the languor and listlessness, the difficulty of breathing and palpitation on exertion, and the headach; the appetite was not bad, but there was oppression and flatulence after food; the same pain and sense of weakness in the back, and in her, too, more particularly at the lower part of the belly; the bowels were tolerably regular she said, though it appeared they were costive; the legs were very œdematous, much more than in the preceding case, and had been so for the last six weeks; the pulse 86 while quiet, small and weak; with her menstruation had not ceased, but it had occurred at irregular periods, generally beyond the ordinary interval, and the discharge was scanty, and exceedingly pale coloured.

During the first two weeks she took pil. aloes c. myrrha gr. x. every night, and ferri sulph. gr. ij., magn. sulph. ℥j., infus. quassiæ ℥iss. three times a day, the sulphate being in a few days increased to gr. iij. for a dose; but though her general health had at that time improved very much, and the œdema of the legs had certainly lessened, they were still very large, and therefore I gave ℈j. of the ferrum tartarisat. three times a day, instead of the sul-

phate, with the intention of its acting not only as a tonic, but as a diuretic, at the same time directing the legs to be bandaged from the toes to the knee, by using a roller, as a means of support; the tartrate of iron was in a few days increased to ℥ss. for a dose. Under this plan the secretion of urine increased, the œdema subsided, the menstrual discharge took place at the proper time, and right as to quantity, colour, and consistence.

Now, this case occurred as you observe in a female, at a much more advanced period of life, and exemplifies the power of moral circumstances in acting as a predisposing cause. She was perfectly well before she suffered the fright from her cap being set on fire, but shortly after that all the symptoms began to manifest themselves. You see, too, that in this case menstruation was never wholly suppressed, the period became irregular, while the secretion was altered as to its quantity and quality, and that as her general health improved, and as the constituents of the blood became natural, so did the uterus resume its natural function, both as to period and as to the nature of its periodical secretion.

The case of otorrhœa, or purulent discharge from the ear, occurred in a little girl, aged eleven, who was admitted into Elizabeth's Ward on the 3rd of January. At the time of her admission, her mother stated that about eighteen months ago she had measles, directly after which she was attacked by pain of the head, with swellings of the glands in the neck, and soon followed by a purulent discharge from both ears; the right ear continued to discharge for six months and then ceased, but the left has continued to the present time to discharge copiously an offensive purulent fluid, occasionally mixed with blood; with the right ear she could hear very well, but was deaf, though not wholly, on the left side; her general health was tolerable; no heat of skin, tongue clean, appetite good, bowels regular, pulse natural; there was still some enlargement of the glands of the neck on the left side, and she occasionally had, though not very often, severe pain in the left side of the head. On examining the ear, as well as the profuse discharge would permit, there appeared to be a small granulation in the meatus externus Now I think there can be no doubt but that this was a case of inflammation of the tympanum, which had terminated in suppuration, the membrane of the meatus externus being also in a state of chronic inflammation, and being fearful that if the bony portion of the tympanum had not already ulcerated to such an extent as to denude the dura mater, yet that at all events the headach was referable to an increased degree of irritability of the membrane, and thus accounting for the headach, I determined to use no means for the purpose of checking the discharge, but simply directed the ear to be well washed out with warm water night and morning, the head to be shaved, blisters applied alternately to the occiput and behind the ear, and kept open by means of the savine ointment, and the occasional application of leeches to the temple, or behind the ear, with at first gr. v. of the compound calomel pill every night, which was afterwards changed for gr. j. of calomel twice a-day; having prescribed this treatment, as the case approximated very closely to the debateable limits between medicine and surgery, I requested that my colleague, Mr. Tyrrel, might see her, and, as he agreed with me in the propriety of not doing any thing to check the discharge, the plan was persevered in until she quitted the hospital Now, during the first month there was little change in the symptoms, the head was on the whole less frequently pained, but still it was scarcely so at times, and the discharge continued to be as copious, while the deafness was much the same. About this time, a month after her admission, her mouth became slightly sore, and, in a few days after, the discharge sensibly diminished; the mercury was for a time omitted, and then resumed in just sufficient quantity to keep up the influence on the mouth; the counter-irritation and occasional application of leeches being still continued, by the end of February no granulation in the ear could be discovered, the discharge varied but was infinitely less than when she came in, and by the 7th of March she could hear as well with that ear as with the right; after this, for a few days, the discharge entirely ceased, but returned slightly on the blister on the occiput having ceased to discharge; it lessened immediately on the application of a fresh blister, and I have no doubt but that she would have soon been perfectly well, but her mother was a poor woman obliged to go out to work for her living, and could not longer spare her, as she wanted her to take charge of the younger children at home in her absence, and therefore took her out on the 28th of this month.

Now, more than twenty years ago, I can remember that the propriety of putting a stop to purulent discharges from the ear was a subject of much difference of opinion among medical men, and, if I am not mistaken, Mr. Saunders, the then demonstrator of anatomy to this hospital, was the first to insist on the propriety of stopping it in all cases. I have heard, too, that this practice has been followed by remarkable success in a great proportion of cases so treated.

It has, however, happened to me to see, in the course of my practice, more than one case of most severe inflammation of the brain supervene, on the discharge from the ear being checked by astringent injections; so severe was the inflammation as to place life in the greatest hazard, and consequently I have always felt afraid of resorting to such a mode of treatment. I would advise you, therefore, when you meet with these cases to pause before you use any astringents, they certainly ought never to be employed if there is pain in the head.

You will find it the safest practice to rely on counter-irritation, and if the case will admit of it, local depletion by means of leeches or cupping from time to time, while in many cases, similar to the present, you will find mercury, moderately used, an excellent adjutant; washing out the ear, and not using cotton, lest the discharge, from being pent up, should cause irritation.

The case of disease of the heart with cough, dyspnœa, and dropsy, occurred in Elizabeth Barnis, a monthly nurse, æt. 65, who was sent to me by Mr. Travers, and admitted into Elizabeth's Ward on February 14th. When taken in she stated, that for the last three years she had been subject to palpitation of the heart with difficulty of breathing, and some cough, all of which had greatly increased during the last five or six weeks, about which time the legs and belly began to swell; the cough was attended by expectoration of mucus; she complained of occasional violent beating pain over the whole head, and which was aggravated by the recumbent position; complained too of occasional spasmodic itchings of the hands and arms, and when the fits of the dyspnœa were severe her daughter said that the lips and hands became quite livid; she was unable to lie either on her back or the left side, the only easy position being the right side with the shoulders raised; she did not complain of any positive pain in the region of the heart, but only of a sense of weight and fullness there, especially on stooping; her appetite was bad; tongue white in the centre; bowels open; her urine had been very scanty, but had latterly increased from some medicine she had been taking before coming to the hospital; pulse 80, intermittent and irregular both in force and frequency; countenance anxious. Upon examining the heart, it was found beating over a considerable larger space than natural, and heard over nearly the whole of the anterior portion of the chest, and most plainly on the right side; the sound and impulse of the left ventrical nearly natural, but she complained of considerable pain on pressing between the intercostal spaces over the heart, and pressing the diaphragm against the apex. On listening to the lungs, anteriorly, the respiratory murmur was natural, but posteriorly and laterally it was harsh, sonorous, and in some parts cooing, it was heard at the lowest portion of either side of the chest very distinctly in any position; the legs were still slightly œdematous, but not nearly so much she said as they had been; the abdomen was large, slight fluctuation was evident, and she complained of aching pain over the whole belly; from the largeness of space, over which the heart beat, it was clearly enlarged, and from the impulse and sound being so distinct on the right side of the sternum, I have no doubt but that the right was hypertrophied with dilatation as well as the left, and most probably to a greater extent, though there was no pulsation of the jugular veins; the pain produced by pressing between the intercostal spaces, satisfied me that there was some inflammation of the pericardium, and the sonorous and cooing state of the respiration gave sufficient evidence of bronchitis; the dropsical effusion appeared to be merely the result of the obstructed state of the circulation, there was no proof that there was any inflammatory condition of the peritoneum.

Now the treatment consisted in cupping between the shoulders, leeches to the region of the heart, sixteen on alternate days so long as there was any pain on pressure, and she was bled once to ℥viij. from the arm; she took a pill, containing one grain of calomel, one of the powder of squill, and half a grain of the powder of digitalis three times a-day, with a draught consisting of half a drachm of the spirit of nitric æther and a scruple of the acetate of potass also three times a-day; in five days after taking the mercury, her mouth became sore, and it was then discontinued; the cough became less frequent; urine copious; the effusion lessened; and, by the 22nd, she was able to lie on the left side with very little inconvenience. Her bowels being at this time costive, I ordered her two scruples of the compound powder of jalap every other day, at the same time directing that the diuretics should be continued. Under this treatment her pulse became fuller, though still irregular and slow, generally about 52 in the minute, and very rarely more than 60. She lost her cough, her dyspnœa, and her palpitation. She had no longer any pain in her head, was able to sleep soundly in any position, lying as well on her left as on her right side. The belly was reduced to the natural size, and there was no longer any fluctuation, and she quitted the hospital, assuring me that she was much better than she had been for some years previously; in fact, I had some difficulty in making her understand that she could be still suffering under any organic affection of her heart, or that caution could be necessary on her part, in avoiding those circumstances which would be likely to cause a recurrence of the symptoms. Of course, considering the condition of her heart, she cannot be said to be cured, but altogether the case was highly satisfactory, as showing how much good we are often capable of doing where there is organic disease of the heart, even at so advanced a period of life. Useful as both the mercury and diuretics were, still I am confident I should have failed if I had trusted to them alone, without the abstraction of blood, for the purpose of lessening the inflammatory action.

THE ROYAL COLLEGE OF SURGEONS.

FROM MR. SALMON'S ORATION,

Read before the Medical Society of London.

"It is unfortunately but too apparent, that we owe the formation of the

present College, much more to the courtly influence of private individuals than to that great principle, that grand national consideration, *the public good*, which should be among the first cares of every wise, virtuous, and honest government. In proof of the opinion just offered, we need only refer to that most remarkable clause in the charter, which alludes to the dissection of the bodies of murderers; by which the interest of a particular hospital, some of the surgeons of which, be it recollected, were members of the council, appears to have been specially taken care of; else, why was the room, which was to be provided for the purpose of dissection, to be situated within four hundred yards of the Old Bailey?

"It, however, would signify but little in what *source* the present College of Surgeons originated, were its provisions adequate to promote the objects for which it professedly was instituted: but, from the manner of the construction of these, no such beneficial results could have been looked for. That they have been productive of high and lucrative advantages to the select few, who, from time to time, have formed the members of the council, admits of no doubt; how well, however, those gentlemen have acquitted themselves of the trust committed to their charge, may be deduced from a careful examination of the by-laws they have framed for the management of the profession; some of which we propose, as far as may be necessary for the elucidation of our subject, briefly to consider.

"We have shown that the council are self-elected. The original projectors of this injurious, not to say disgraceful, regulation, are, however, relieved from the odium which attaches to it, upon the formation of the College, by the government having professedly nominated the whole number of persons who constituted the *first* Court of Assistants; but it is only fair to presume that an understanding existed between the electors and the elected; the latter of whom may be considered to have ceded a temporary advantage, for the purpose of securing a permanent benefit.

"The 'first by-law,' which regulates the admission of members to the council, evinces an imbecility and narrowness of judgment, indicative of the spirit by which those irresponsible councillors were actuated; for it enacts, 'That no member of the College, whose professional practice is not *confined* to surgery, shall be elected a member of the council;' by which invidious distinction an odium is thrown upon many of the most useful and respectable members of our profession, all of whom, let it be recollected, have been deemed eligible by this very council, to become Fellows of the College, yet, by this regulation, they are excluded from taking any part in the management of its affairs, notwithstanding the College was erected for their benefit, and is supported at their expense!!! Although the most scrupulous care has thus been taken to prevent the election of any but the pure surgeon upon the council, they are not equally severe upon any member of their own body who may not, *after* his admission, continue to confine himself to the practice of surgery only; since the individual, so transgressing, is merely 'liable to removal' from the council, to whom alone, be it remembered, he is responsible; and few of whom are likely, from their own transgressions, to become his accusers."

KING'S COLLEGE.

Distribution of Prizes to the Medical Classes.

THE ceremony of distributing the prizes and certificates of honour, awarded to students for proficiency in the elementary branches of medical science, took place on Saturday last in the surgical theatre of King's College, before a large assemblage and the patrons and friends of the institution. At a few minutes past two o'clock the BISHOP OF LONDON took the chair.

His Lordship said, that the object

of the present meeting was to witness the distribution of prizes to the students of the medical branch of this institution; and he was much gratified to state that the medical school of King's College was the first in the metropolis. He stated his opinions without intending to give offence to any one. The council considered that the medical professors were the ablest that could have been selected; and their zeal in the discharge of their duties was highly approved of by the institution. The science of medicine was of great importance to society, and deserved encouragement from the public.

It was gratifying to be enabled to state that the medical professors gave a most favourable account of the assiduity and good conduct of the students; and he trusted that the same report would always be made in future. He concluded his address by calling on the respective professors to announce the mottoes of the successful candidates.

The following is the list of prizes and successful candidates:—

Anatomy.—Silver medal, Mr. W. T. Robinson; certificates of honour, Messrs. Sodon, Talmage, and Galland.

Anatomical demonstration.—Silver medal, Mr. Sodon; certificates, Messrs. Robinson, Talmage, and Galland.

Botany.—Silver medal, Mr. B. Whitfield; certificates, Messrs. Chance and Metcalfe.

Materia Medica.—Silver medal, Mr. H. Holme; certificates, Messrs. Rawson and Osborne.

Practice of Medicine.—Silver medal, Mr. Metcalfe; certificates, Messrs. Cartar, Rawson, and Winchester.

Forensic Medicine.—Certificate, Mr. W. Chance.

Midwifery.—Silver medal, Mr. H. Metcalfe; certificates, Messrs. Rawson and Pearce.

Surgery—Silver medal, Mr. W. Trew; certificates, Messrs. Carter, Rawson, and Talmage.

General proficiency.—Gold medals, Messrs. Rawson and Chance.

General good conduct and attendance at Chapel (Mr. Leathe's prizes).—Messrs. Atkinson and Leacock.

The Chairman now called on Professor Green to report the progress of the Medical School, and to announce the mottos of the students entitled to the gold medals for general proficiency.

Professor Green commenced by observing that King's College was the only institution that conjoined religious and medical instruction, and this was chiefly effected by the learned prelate whom he had the honour of addressing. He highly approved of this union, because medical practitioners were, of all other classes of scientific individuals, those most likely to be impressed with the divine precepts of Christianity. It was most important that this should be the case, as they were the chief promoters of morals and civilisation. Trace the medical practitioner into the remote and obscure village, and it will be found that he and the clergyman are the chief persons by whose example morals and civilisation are diffused. Follow him to a distant part of the globe with our missionaries, and he will have to alleviate affliction in those about him. Look at him in private and hospital practice, and consider the delicate situations in which he will be placed, and then say whether he ought not to be a religious and moral character. In all his relations to society he ought to be distinguished for piety and virtue.

With respect to the progress of the medical school at King's College, it was most cheering. In this, the second year of the establishment, the number of its students was two hundred and thirty. He and his colleagues discharged their duties with ardour, and it was but justice to state, that the students were most attentive and well conducted. He trusted that the gentlemen educated in that school would carry into private life the re-

ligious and medical tenets inculcated in King's College; and he was convinced that many of them would be ornaments to society, and an honour to the medical profession. He concluded by reading the motto of each successful candidate.

The Principal then addressed the meeting, and spoke in the highest terms of praise of the correct deportment and conduct of the medical and all other classes. He had on one occasion an opportunity of learning their feelings, and he was glad to declare, that they were all actuated by religious and moral principles. He had to announce that one of the governors had given a prize for general good conduct and regular attendance at chapel, and it devolved on him to decide who was entitled to it. He had some difficulty to make up his mind, as two had nearly equal claims, Mr. Atkinson and Mr. Leacock, but he conscientiously declared that Mr. Atkinson had the stronger claim.

The meeting then adjourned.

SINGULAR HYSTERICAL AFFECTION.

BY DR. GRAVES.

On the 1st of last September I was called to see a young lady, who was represented to be in a state of imminent danger. On entering the room I found her sitting up in bed, surrounded by several female friends, all in the greatest alarm. Her face was pale, and her countenance indicated a good deal of anxiety. She held in her right hand a cup containing water, which she applied to her lips about every five seconds, and sipped an extremely small portion of the water, which she immediately swallowed with a considerable effort of deglutition, although the quantity was so trifling. She said that she should be immediately choked if she discontinued this perpetual sipping; and she referred to an intolerable uneasiness at the root of her tongue and in her throat, threatening immediate suffocation the moment she ceased to employ herself in swallowing; and so urgent was the feeling that impelled her to this act, that the moment an attempt was made to take the cup out of her hand she began to scream with agony, was agitated with convulsions, and to all appearance seemed in the last agony. This scene had lasted several hours without interruption, and the appearance of the principal actress was rendered still more tragical by a black mass of leeches around her throat, and the blood from their bites trickling down her neck. On examining her more closely I found that there was no obstruction whatsoever to the passage of air through the larynx, and that she could make a full inspiration without any wheezing or noise in her chest; there was no swelling or redness observable at the root of the tongue, or in the fauces. As the young lady was of an extremely delicate and nervous habit, being very sedentary, and subject to frequent attacks of common hysteria, I immediately conjectured that her present symptoms were the result of an hysterical affection, and accordingly I removed the leeches, stopped the bleeding as soon as possible, and gave her draughts consisting of camphor, aromatic spirit of ammonia, and black drop, under the influence of which the nervous irritation soon subsided, and she fell asleep. I have mentioned this case, not because its nature and the proper treatment were not sufficiently evident, or admitted of being mistaken by any practitioner of common attainments, but because it presented some circumstances concerning the act of deglutition worthy of remark. In the first place, it is clear that the uneasy sensation, referred to the throat, was a variety (not an unusual variety, however,) of globus hystericus. This uneasy sensation was, like globus, accompanied by the sensation of impending suffocation. The efficacy of the constant sipping and swallowing in alleviating this feeling may be

somewhat analogous to their well-known effects in stopping another affection plainly of a spasmodic nature —I mean hiccup,—which, in most cases, may be cured by a similar succession of quickly-repeated deglutitions of very small quantities of water. Again; it is worthy of notice, that any attempt to prevent this process was immediately followed by general hysterical convulsions. How opposite must be the state of the nervous system in hydrophobia, when the slightest attempt to swallow a fluid brings on convulsions!

Another curious affection of the organs of deglutition has occurred to me in the case of a nervous young clergyman, concerning the state of whose health I was last year consulted by Surgeon Barker, of Cumberland-street. He complained of various symptoms indicating debility and dyspepsia, but was chiefly annoyed by a painful and convulsive struggle, as he expressed it, which sometimes took place between the bit he had swallowed just before it entered the stomach, and a something that seemed to resist its further passage downwards. This lasted only for a few seconds, and was very distressing both to himself and the spectators, for of course it usually occurred at meals, and rendered him unwilling to dine in society. In another case, these sudden attacks of temporary dysphagia are become so habitual, that the gentleman never ventures to eat unless a glass of water be within his reach; for in him the stoppage of the descent of the bolus of food is attended with an urgent sense of suffocation. This gentleman, an excellent anatomist, thinks that the sense of suffocation is entirely nervous, or at least that it has nothing to do with any mechanical obstruction in the glottis arising from the neighbourhood of the descending food. In both these cases, the cause of the disease appeared to lie in the increased, or rather deranged, sensibility of the œsophagus itself. In wounds of the cervical portion of the spinal marrow, it occasionally occurs that the sensibility of the œsophagus is so increased that deglutition is rendered impossible in consequence of pain, a fact sufficient to direct us to apply our therapeutic agents to the neck in such cases as I have related.

In fever I have witnessed several times a very peculiar species of dysphagia, evidently occasioned by flatulent distension of the stomach to such an extent that the lower portion of the œsophagus partook of this condition; at least I conjecture so, for, during the struggle of the dysphagic paroxysm, a gurgling noise was heard, as if the bit of food was met by a portion of air contained in the lower part of the œsophagus. My friend, Dr. Autenrieth, of Tübingen, has particularly remarked this symptom, or at least something like it, in what he calls the "abdominal typhus fever of young people;" for he says, if the patient takes any drink, a peculiar gurgling noise is heard as if the fluid was poured into a lifeless bag. Now, in precisely such a case, Mr. Rumly and I saw a young lady affected, in addition to this noise, with so great spasmodic dysphagia, probably from the entrance of wind into the lower end of the œsophagus, that she altogether refused to drink. This phenomenon gradually disappeared, and the lady ultimately recovered; but it deserves to be remarked, that, in general, this symptom and the gurgling noise described by Dr. Autenrieth, are very bad omens in fever. — *Dublin Journal of Medical Science.*

LONDON UNIVERSITY PRIZES.

Mr Thomas H. Cooper, who received the gold medal for Botany at the London University, and to whom that for Comparative Anatomy was said to be assigned, very generously informs us, that the latter was obtained by Mr. Henry Slack, of Epsom.

THE

London Medical & Surgical Journal.

Saturday, June 1, 1833.

KING'S COLLEGE.

In another page will be found a Report of the distribution of prizes to the medical classes at King's College, and of the prospects of the Institution. It appears, according to the statement of Professor Green, that the medical department is in a flourishing condition. We were much pleased with the tenor of the learned gentleman's speech; but, in one part, it showed bad taste, in alluding to a rival establishment. We fully agree to the opinion, that medical practitioners should be moral and religious; but we are among those who think they are as likely to become so under parental care, as in any public institution. We question even whether the medical students in King's College frequent chapel more punctually than those at the University, who attend divine worship with their families. We were highly gratified with that portion of Mr. Green's address, which related to the beneficent influence of our profession on civilisation. He illustrated this point with eloquence and ability.

The Bishop of London was rather unfortunate in stating that the medical professors were, in the opinion of the Council, the best that could be selected. Few of the profession will assent to this position.

In our opinion King's College has succeeded much better than could be expected, when we consider that the medical professors were, in a great degree, elected as the nominees of certain individuals, and not on account of scientific acquirements, original works, or standing in the profession. But this Institution will not succeed as a medical school until it possesses a hospital. This is the opinion of the professors; for we have heard that the patrons of the College are in treaty with the governors of the Charing-Cross Hospital, for the purpose of procuring an establishment so very convenient to their own.

With regard to the prizes we must observe, that there was a sordid economy in withholding gold medals from the medical students, and offering only a silver one to each class. We know, from various sources, that this parsimony has given very great dissatisfaction both to the students and their friends.

The London University award one gold and two silver medals to each class, with several certificates of honour. Here is a great inducement to students, and one that must excite their emulation. Every one who competes has a good chance of some mark of distinction, and therefore several naturally contend in each class. But when there is a silver medal and three tickets of honour to be contended for, and one or two students superior in each class, the remainder will decline the contest. We dwell upon this point in accordance with the wishes of several of our correspondents, and we trust, on a future occasion, that there will be no grounds of complaint on this head.

THE LONDON UNIVERSITY HOSPITAL.

THE foundation of the hospital of the London University having been laid, and the building rapidly advancing, the monopolists are raging most furiously, and, through the medium of their organ, the Medical Gazette, raise numerous objections, designate it a job, and predict it a certain failure. We are not surprised at this, because the establishment of the hospital will lead to the reduction of fees in all similar institutions in the metropolis. It is, therefore, to be expected, that the patrons of our worthy contemporary will avail themselves of his thunder against the new establishment. But what amused us most, is the attack on the EDITOR of the TIMES, on account of his able advocacy of the University Hospital, which is designated partiality. We suppose the learned EDITOR will not notice the institution again.

THE FACTORY COMMISSIONERS.

WE have denounced the appointment of these commissioners as a job, and as a piece of policy which the country scarcely expected from a Whig ministry. It appears by the *Manchester Advertiser*, that we were right in our opinion, as the worthy commissioners are now engaged "in weighing and measuring factory children, in order to ascertain whether it is useful to children of ten years of age to pursue factory labour for twelve hours a-day." Here is march of intellect with a vengeance, though it appears by the sequel, that the fear of the great schoolmaster has been lost on the commissioners.

"During the course of inquiry at Granby-row Sunday School, on *Sunday* evening last, a girl of the school, grown up, and somewhat distinguished for personal charms, complained to one of the superintendents that a gentlemen, who proved to be the clerk to the commissioners, had been addressing language to her very little in character with the assumed object of the visit, and had, in short, pressed her warmly to make an assignation with him. The announcement threw the school into confusion; a commissioner was supposed to be the offender; the whole train was threatened with forcible ejectment. The accused party denies the truth of the imputation; but the girl, who is highly respected, has confirmed it by an oath, and so much credit is given to her accuracy by the Catholic body, that the task of the commissioners of weighing children in Catholic Sunday Schools, may be considered to have terminated in Granby-row."

We trust that from the general high character maintained by the profession, none of the naughtiness complained of is to be laid at the door of an amorous Æsculapian. We flatter ourselves that the medical commissioners of this humane and moral board of measurers and weighers, set a good example to the less responsible members. We hope that the black sheep of the flock will be recalled by the government before he has contaminated any of the others, more especially as we have some friends amongst them, whom we should be sorry to find condemned to the *treadmill*, instead of enjoying the rural felicity which the expedition they have commenced held out. At the same time it might be useful to give them a few hours' enjoyment of that domestic occupation, that they might be enabled to form a just estimate of what *factory labour is.*

CONVERSAZIONE AT THE COLLEGE OF PHYSICIANS.

THE bread and butter system of the President and Fellows having given just cause of offence to those who were invited, and who found, that instead

of an intellectual treat, they were to sip Bohea, and to enjoy the emptiness of the small talk of the old ladies of the College; the illustrious President buckled on his shining armour for a glorious display on the last occasion. The gallant champion of "*things as they are*" mounted on a spirited war-horse, and surrounded by bishops, judges, peers, and royal scions, galloped to the tented field, sounded an alarm, and delivered an animated oration, such as Hannibal or Scipio, Cæsar or Pompey, might have pronounced before a battle. The subject on which the gallant chieftain dilated was Toxicology—taking a completely classical view of the subject—and we will acknowledge, with very great pleasure, that he gave a learned and well-studied discourse. He had evidently taken Mead's Dissertation on Poisons as a guide, but entered much more profoundly upon the subject. For such an audience it was very well adapted, though *we* might have wished for some more practical information. It was a lecture that exhibited much reading, considerable discernment, and accurate knowledge, and not unworthy the character of a President of the Royal College of Physicians of England.

OBSERVATIONS ON INFLUENZA.

BY WALTER C. DENDY, ESQ.

The subsidence of the late epidemic having partially lessened our interest in its pathology, it is incumbent on me to apologise for reverting to a portion of our late discussions, which was directed to the treatment of common and specific inflammation. It is my duty to state, that I fully coincide in the doctrine, and appreciate the practical inferences arising from it; and I have merely differed with regard to the application of those opinions to the prevailing disorder.

The influenza has been marked by a Protean character, referable probably to locality, idiosyncrasy, and habit; with this admission, it is not difficult to explain why the disorder may not be *essentially catarrhal*, and why, in some instances, it may not be of sufficient duration or severity to develope inflammatory action, a term which is too often misapplied, being employed to denote a condition of simple *erethism* when the diagnosis has been formed from *symptoms*, or of *hyperæmia*, when the judgment has been decided from post mortem appearances. But I study to be brief, and therefore merely allude to those cases in which inflammatory action is established.

The specific nature of inflammation is a subject replete with interest; but as this is merely an explanatory note, I will not enter into the various characteristic distinctions between the exanthemata, &c., and common or phlegmonous inflammation. The visible signs of scarlatina, measles, variola, varicella, and of erysipelas, are determinate of their peculiar nature, and it is correct pathology to affirm, that when the morbid impression has been received, such specific disorders will run a determinate course, depletory measures being useful only in mitigating severity of action, and thus conducting the disorder more favourably through its progress.

Then with reference to influenza, that disorder is as varied in its progress and termination as it is in the Protean character which it has assumed. The *exciting* cause, *i. e.* a peculiar constitution of the atmosphere, may be specific, so far as it is severe, unusual, and *extensively influential*, but the *morbid actions* excited by it are not essentially specific.

I believe that an opposite opinion may have the effect of inculcating too much the precept "suaviter in modo," a temporary plan of treatment, which may allow acute action to exert an unchecked and often fatal influence. It is the diffidence in the efficacy of energetic remedy in the early stage of this disease, which has rendered its course protracted, and its severity formidable; and although in some cases marked with high action, such

effects may fail, in many the disorder will be destroyed in the bud and its full development prevented, as in the usual forms of pneumonia, enteritis, or any other acute phlegmonous inflammation occurring in other seasons.

May 28th, 1833.

COLQUHOUN ON ANIMAL MAGNETISM.

Upon the day fixed on for the operation, M. Clocquet, arriving at half-past ten in the morning, found the patient dressed and seated on an elbow-chair, in the attitude of a person enjoying a quiet natural sleep. She had returned about an hour before from mass, which she attended regularly at the same hour. Since her return, M. Chapelain had placed her in a state of magnetic sleep, and she talked with great calmness of the operation to which she was about to submit. Every thing having been arranged for the operation, she undressed herself, and sat down upon a chair.

M. Chapelain supported the right arm, the left was permitted to hang down at the side of the body. M. Pailloux, house pupil of the hospital of St. Louis, was employed to present the instruments, and to make the ligatures. A first incision, commencing at the arm-pit, was continued beyond the tumour as far as the internal surface of the breast. The second commenced at the same point, separated the tumour from beneath, and was continued until it met the first; the swelled ganglions (*ganglions egorgés*) were dissected with precaution, on account of their vicinity to the axillary artery, and the tumour was extirpated. The operation lasted from ten to twelve minutes.

During all this time the patient continued to converse quietly with the operator, and did not exhibit the slightest sign of sensibility. There was no motion of the limbs or of the features, no change in the respiration nor in the voice, no emotion even in the pulse. The patient continued in the same state of automatic indifference and impassibility in which she was some minutes before the operation. There was no occasion to hold, but only to support her. A ligature was applied to the lateral thoracic artery, which was open during the extraction of the ganglions: the wound was united by means of adhesive plaster, and dressed. The patient was put to bed while still in a state of somnambulism, in which she was left for forty-eight hours. An hour after the operation, there appeared a slight hæmorrhage, which was attended with no consequence. The first dressing was taken off on the following Tuesday, the 14th,—the wound was cleaned and dressed anew—the patient exhibited no sensibility nor pain—the pulse preserved its usual rate.

After this dressing, M. Chapelain awakened the patient, whose somnambulic sleep had continued from an hour previous to the operation, that is to say, for two days. This lady did not appear to have any idea, any feeling of what had passed in the interval; but upon being informed of the operation, and seeing her children around her, she experienced a very lively emotion, which the magnetiser checked, by immediately setting her asleep.

MEDICAL REPRESENTATIVE IN PARLIAMENT.

To the Medical Profession.

Gentlemen,—It was with no small degree of satisfaction that I read a short article in the last published number of the Medical and Surgical Journal, headed "Medical Representative in Parliament." From whatever quarter this announcement emanated, I may boldly assert that the idea originated with *myself*. It has been for years a cherished notion within my breast; I have not con-

cealed it from my friends, and I have some claims upon your notice, if you succeed (which can be no difficult matter) in making suitable arrangements for the projected purpose.

Upon the present occasion I shall restrict myself to the declaration,—that I have pretensions of no ordinary nature to reveal when I have more leisure (which I hope to obtain ere the publication of the ensuing number) when I shall lay some particulars before you. In the meantime, permit me to say that a more honest, fearless, and probably *efficient* person, for the purpose you have in view, can hardly be found among the "Physicians" of the United Empire.

I remain, Gentlemen,
Your obedient humble servant,
JOHN GORDON SMITH.

May 28, 1833.

TARTARISED ANTIMONY IN SPASMODIC DISEASES.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—If you think the following case worthy of a place in your valuable pages, you will oblige me much by inserting it at your earliest convenience.

A strong healthy man was seized, without any apparent cause, with painful spasms of the lower jaw, progressively extending to the neck and trunk, at the same time increasing in severity. I saw the patient eighteen hours after the attack, when I bled him, and administered ten grains of calomel and one of opium, which was followed up by smaller doses; a purgative glyster was also given, and repeated at short intervals for three days, without any effect upon the bowels, or benefit to the symptoms. At the end of that time, when the disease had assumed a most alarming aspect, four grains of tartarised antimony were given, which produced a single vomiting and a copious diaphoresis. An hour after this, the spasms were greatly diminished. Benefit being thus apparently afforded, the tartar emetic was continued in doses of two grains every two hours, which kept up a continual state of nausea, acting at the same time freely upon the bowels. For nearly three days longer this plan was pursued, the spasms gradually decreasing in frequency and violence. A change of treatment, however, having become necessary, from the debility and exhaustion produced by the joint operation of the remedies and the disease, the tartar emetic was dropped, and a tonic treatment adopted, and at the expiration of a week the spasmodic affection had entirely disappeared. From that time the patient gradually recovered. I shall not enter into a long discussion upon the modus operandi of the tartar emetic in such a case as this, but shall merely state, that I was induced to employ it from its well known property of lessening muscular strength and contractility in cases of dislocation. Assuring you it will afford me the highest satisfaction to hear, that tartar emetic may be found in other hands to be attended with the same satisfactory results as there is reason to believe it was in the above case,

I remain your obedient servant,
EDWARD DUNCAN.

3, *Leadenhall-street,*
May 20, 1833.

IMPORTANT DISCOVERY.

NEW INSTRUMENT FOR EFFECTING THE CHEMICAL SOLUTION OF STONE IN THE BLADDER.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—As you have ever shown an ardent desire to contribute to and develope the resources of medical science, and to lay before the public whatever you think may be likely to conduce to their advantage, I feel the less hesitation in taking up some of your valuable space on a subject intimately connected with both.

In an age like the present, when mankind are steadily searching after truth, neither fettered by prejudice nor dazzled by theory;—when antiquity, however venerable, attaches credit to no opinions but those founded on fact;—while novelties, no matter how strange, are, if supported by them, at once encouraged and adopted;—at such a time it is that the road to public favour is fairly open, since it must be extended indiscriminately to all, if those only be singled out who have a just claim to its notice. To the impulse thus given to ingenuity and research is owing the great advancement in all the arts and sciences which is the boast of the present day; and as the student or the artist sits down to his laborious task, neither can the sickness of disappointment, the sceptic's sneer, or the "crassum ridere" of ignorance (for all these he will have to endure), discourage or deter him. There is, however, another difficulty to which, "with senses narrow and with reason frail," the inventor must be for ever subject—I mean the difficulty of attaining perfection, and that quickly. Like the plan of the architect, invention, however excellent, must be vigorously acted upon, in order to be useful. Like that, also, a single head may project, but the multitude can only raise the structure, or make a present good of what might have remained a long time inert and unprofitable.

With these impressions it is, that the inventor is induced to lay before the public, an instrument which has been the work of no little time, trouble, or expense; with it he also proffers his humble and anxious hopes, that, in conjunction with other excellent instruments at present in use, it may do away with what has been long deemed the opprobrium of surgery, I mean the operation of lithotomy.

The manner by which he professes to destroy the stone is by solvents introduced into a sac, in which it has been isolated. If, in this plan, any merit is due to originality of conception, the inventor possesses every claim, as he was not aware that that of priority was the right of another, until long after he had undertaken it. In this respect, however, and the most important one, he has been alone successful, that of rendering it practicable and totally free from danger to the patient. The French instrument for that purpose, a plate of which is given among Civiale's instruments for lithotrity, appears to have been published more for the purpose of illustrating the idea than of rendering it practically useful. The inventor, indeed, must have been stopped in ipso limine, as besides the imperfect state of its mechanical construction, he allows that he had not discovered a tissue sufficiently strong to hold the acids. In introducing a new instrument into the already formidably array of the surgeon's apparatus, it will be naturally expected that I should endeavour to avert public alarm, and prepare the way for its favourable reception, and some apology is undoubtedly due to the profession for an attempt to overthrow established usage. But such a course, though the usual one, might be thought *preposterous,* in its present stage. A multitude of successful cases must first be cited, and this the inventor had no opportunity of doing. Instead, therefore, of instituting any comparison on the different modes of operating, or of attempting, by an exposure of the deficiences of our present instruments, to reflect any encomium on his, he will content himself with briefly stating the advantages which he proposes to secure, and leave it to experience and an impartial public to decide the superiority. These advantages may be divided into two kinds, positive and negative. The first is the total and absolute destruction of the stone, whatever be its magnitude or consistence, and in most instances, whatever be the age or constitution of the patient, the impossibility of its inflicting any injury on the urethra or bladder by its "modus

operandi," its extreme simplicity, and consequently the absence of any dangerous consequences that might occur from any defect of its mechanical construction.

Allow me again to assure you of my high regard, and how much I am your obliged and obedient servant,

THOS. FRAS. LUCAS.

19, *Weston-street.*

VIRTUES OF THE LAPATHUM MAGNUM.

AT the meeting of the Medico-Botanical Society on the 23rd of April last, a letter was read by order of the noble president, Earl Stanhope, from Dr. Cadett, a Fellow of the Society, and one of the physicians of the London Medical Institution, in George-street, New-road, upon the virtues of different medicinal plants, native and foreign, and upon the great importance of their being gathered at the proper season, and preserved in a proper manner. A great variety of specimens of such plants were exhibited; and in respect of one of our native plants the following communication was made:—

I assure your Lordship that I am fully impressed with the great importance of medico-botanical pursuits, from what I saw of the virtues of the *Lapathum Magnum* and other of our native herbs, in certain obstinate cutaneous and other chronic diseases, whilst I was a student of medicine in Edinburgh, at the Institution there, similar to that which your Lordship knows has now been formed here.

The *Lapathum Magnum,* or Great Water Dock, is the *Herba Britannica* which Pliny tells us cured the army of Cæsar Germanicus of the scurvy.—"In Germania trans Rhenum castris à Germanico Cæsare promotis, maritimo tractu fons erat aquæ dulcis solus, qua potu intra biennium dentes deciderent, compagesque in genibus solverentur. Stomacacen medici vocabant, et salotychen ea mala. Reperta auxilio est herba, quæ vocatur Britannica, non nervis modo et oris malis salutaris, sed contra anginas quoque et contra serpentes."

The Lapathum Magnum is also spoken of by Galen—

"Ομοια Τοῖς Των αγρίων οντα λαπανθων."

ON THE NATURE OF SLEEP,

BY DR. WILSON PHILIP.

A PAPER of Dr. Wilson Philip's was read, March 7th, before the Royal Society, on the nature of sleep, from which we have an opportunity of making some extracts.

"There is no question relating to the living animal which involves a more general view of its phenomena than the nature of sleep, and, probably for this reason, none respecting which opinions are more vague and unsatisfactory. I propose to review these various phenomena for the purpose of ascertaining the organs in which its immediate cause exists, the laws on which it depends, and the effects it has on those parts of the system which are not concerned in its production.

"We can perceive no final cause of the alternation of watchfulness and sleep, but such as has its origin in the imperfection of our nature. The end of life is enjoyment, and as sleep, if we may not regard it as a positive evil, prevents uniformity in the accomplishment of this end, to say nothing of the occasional inconveniences which attend it, were we as well acquainted with the principles of the animal, as we are with those of the solar system, we should probably find that this defect is, in the nature of things, as unavoidable, as the recurrence of darkness and a degree of cold which benumbs, and of heat which overpowers our faculties.

"We shall never perhaps be able to tell why certain organs are capable of constantly maintaining their functions, while others require intervals

of repose; but it is not difficult to perceive the necessity of the former part of the arrangement, because the permanent functions are those on which the life of the animal immediately depends, the intervals of repose belonging to those alone which are the means of intercourse with the world that surrounds him, and which, therefore, have no direct tendency to destroy life.

"In tracing the relation of the nervous and muscular systems in the last paper I presented to the Society, I had occasion to recall to their recollection the different relations which the muscles of voluntary and involuntary motion bear to the nervous system, and to point out that the two sets of nerves, which form the medium of connexion between the active parts of that system, and these classes of muscles, obey different laws; the one conveying the influence of only certain parts of the brain and spinal marrow, the other conveying and combining that of the whole of these organs*. The former, it is now to be observed, while they are associated, on the one hand, with the organs of sense and the muscles of voluntary motion, are associated, on the other, with those parts of the brain and spinal marrow on which the mental functions depend†; the latter, namely, the nerves which arise, as far as we can ascertain by experiment, from all parts of those organs, being associated, on the one hand, with all those parts, and on the other, with the muscles of involuntary motion and the organs on which life immediately depends.

"Thus we find in the more perfect animals two systems in a great degree distinct from each other; the former may be termed the sensitive system, that by which they perceive and act, and consequently are connected with the external world; the latter the vital system, that by which their existence is maintained. To understand the nature of sleep, we must determine the properties peculiar to each of those systems which have relation to that state, and the manner in which each is capable of influencing the other.

"When the reasoning powers are fatigued by continued attention, the feelings by the excitement of the passions, the eye by the exercise of sight, the ear by that of hearing, the muscles of voluntary motion by powerful and repeated contractions, &c., the organs of all these functions cease to be excited. In order again to excite them, either stronger stimulants must be employed, or they must be refreshed by repose, during which, the functions of life still continuing, their due degree of excitability is restored; and they thus again become sensible to the usual stimulants of life.

"The operation of this law in the sensitive system may be observed under all degrees of excitement. We can perceive a very sensible effect from slighter degrees of exhaustion than that which produces sleep. After sleep there is a vigour which gradually declines till we sleep again; so that every degree of excitement is followed by its corresponding degree of exhaustion. This law of our frame is so prevalent that physiologists have generally regarded it as belonging to every part of the system; but any degree of excitement which produces weariness, must, by a certain continuance of it, produce inability. It is evident, therefore, that were the organs of life to obey this law, a total failure of their functions must soon ensue. The sensitive system is restored because the powers of life remain; but if these powers suffer a similar exhaustion, by what means can their restoration be effected? This consideration alone might have convinced physiologists that their excitement is regulated by other laws.

"It is evident indeed that the cir-

* The 57th and following pages of this volume of the Transactions.

† It has been shown experimentally in my Inquiry into the Laws of the Vital Functions, that the spinal marrow partakes of the sensorial functions. This is very little the case in man, but to a great degree in some animals.

culation continues uninterruptedly; but this has been explained by supposing that the heart and vessels during the intervals of their contractions recover their excitability, the exhaustion of which, during each contraction, has been regarded as the cause of the relaxation which succeeds it.

"This theory appeared to apply well to the heart, because during the intervals of its contractions the stimulus which excites it is removed; but how does it apply to the vessels from which the stimulus is never removed, and which can support the motion of the blood, as has been ascertained by many experiments, independently of the heart*? An organ exhausted by the action of any stimulant will never recover its excitability under the operation of the same agent which has exhausted it. The retina will never recover under the same degree of light which has impaired its power, nor the nerve of the ear under the same degree of sound.

"A very simple experiment, however, demonstrates that the theory is as erroneous with respect to the heart as the vessels. If in a newly dead animal a ligature be thrown around the arteries attached to the heart, so that it continues gorged with blood, its contractions, although ineffectual, still continue to recur with the same regularity as before the ligature was applied. When salt is sprinkled on the muscles of a newly dead animal, the effect is not permanent contraction succeeded by permanent relaxation, but a constant succession of contractions and relaxations, notwithstanding the continued application of the same stimulant, till their power is exhausted.

"An experiment suggested by Dr. Wollaston, and with which he used to amuse his friends, strikingly illustrates the interrupted nature of muscular contraction, even where it is as nearly permanent as the nature of the muscle in its healthy state admits of*. If the elbows be made to rest on a table, and the end of a finger of each hand be pressed steadily on that part of the ear which covers the external passage, so as to press it down forcibly on the end of that passage, we hear a rapid succession of distinct concussions. This he ascribed to our thus being made sensible of the motion of the blood in the vessels. But did it proceed from this cause, the repetition of the concussions would correspond with the beats of the heart. That it arises from the rapid succession of the contractions of the muscles of the arm by the action of which the end of the finger is pressed against the ear, may be proved by making the experiment in the following manner:—Let the arms rest on the table in such a way as to press by their weight on the fingers which stop the ears, care being taken that the stopping of the ears be left to the weight of the arms, and in no degree produced by the action of the muscles. When we succeed in this attempt, all sense of concussion immediately ceases. It will be found that just in proportion as we succeed in preventing the action of the muscles, the noise abates, and when we perfectly succeed, ceases altogether. The same property of the muscle may be made perceptible to another of our senses. If a bird be allowed to rest on the finger, we perceive by the finger its weight alone. It so balances itself that the continued action of its muscles becomes unnecessary. But if the finger be moved, so that the bird is obliged to cling to it to maintain its place, we perceive a thrill which consists of the same rapid succession of concussions as in the former instance is perceived by the sense of hearing. The larger the bird is, they are of course the more distinct.

It is quite evident from all that has been said, that the state of the muscle

* Experimental Inquiry, Part II.

* We have reason to believe that in spasm the muscle is in a state of permanent contraction, probably the cause of the pain which attends this state.

is wholly different in the relaxation which intervenes between the contractions, from that which is supervened when the same stimulus can no longer excite it. Now it is not the first but the last of these states which indicates any loss of power in the muscle.

"The whole of the phenomena of the animal body demonstrate that although it is true that a muscle may be exhausted by powerful and repeated contractions, it is not subject to the law which prevails in the sensitive system, that all degrees of excitement are followed by proportional exhaustion.

"Thus it is that the muscles of voluntary motion often suffer exhaustion, because, being under dominion of the will, they are frequently exposed to excitement which is excessive either in its degree or duration, or both. Their exhaustion does not interfere with health, and for their restoration means are provided in the usual functions of the system. But the muscles employed in the vital functions obey a better regulated stimulant, which never, except in disease, produces any degree of excitement that impairs their power. In many diseases we see the effect of such excitement. If it does not abate soon, and we cannot by artificial means in a short time reduce it, death is always the consequence; and even a short continuance of it produces a degree of debility that so impairs the powers of life as to render their restoration both slow and difficult. Thus it is evident that on the capability of the muscular fibre to be moderately excited, without suffering any degree of exhaustion, life immediately depends.

"This property belongs equally to the muscles of voluntary as those of involuntary motion, the exemption of the latter from exhaustion in the healthy state of the system, not arising from any peculiarity in the nature of these muscles, but from the circumstances in which they are placed. In many diseases we find the muscles of voluntary motion in a state of excitement, that is, in a state of constant contraction and relaxation, which constitutes their state of excitement, during all our waking hours, that is, during all the time that those parts of the nervous system with which they are associated are capable of exciting them, without a sense of weariness, or any other sign of exhaustion in them. The muscles of respiration, which are, in the strictest sense, muscles of voluntary motion *, are in a state of constantly renewed and gentle excitement during life. It is only in asthma and other cases, where their excessive action is required, that they experience any degree of exhaustion.

"Thus the muscular fibre in its laws of excitement differs essentially from the other organs with which it is associated in the sensitive system. It is neither like them in the healthy state capable of uniform excitement, nor in it are all degrees of excitement followed by proportional exhaustion. But in the vital system, although all its other parts are capable of uniform excitement, the muscular fibre is not the only organ in which certain degrees of excitement are unattended by exhaustion. The same is true both of the ganglionic nerves and those organs of the brain and spinal marrow from which they derive their power, and which, it appears from direct experiment, are distributed throughout the whole extent of the brain and spinal marrow.

"The secreting organs, indeed, as well as those of circulation, are less vigorous in sleep than in our waking hours; but this, we shall find, besides that a diminished excitement cannot restore impaired excitability, but must, in proportion to its degree, still add to the exhaustion, is the necessary consequence of causes very different from their partaking of the exhaustion which prevails in the sensitive system. It is in disease alone that they suffer

* Philosophical Transactions for 1829, and Experimental Inquiry.

any degree of exhaustion, which in them produces a very different species of debility, not an exhaustion analogous to that of the sensitive system; which it is even a means of preventing by impeding the functions of life, and thus indirectly proving a cause of irritation to this system.

"It appears from all that has been said, that in the sensitive system alone we find organs capable of exhaustion from all degrees of excitement, and the exhaustion of which is consistent with a state of health, namely, the nerves of this system and those parts of the brain and spinal marrow with which they are associated; but it is a necessary inference from the facts stated in the last paper I had the honour to lay before the society, that the former of these only obey the latter. To the latter alone, therefore, we must look for the exhaustion which is the inmediate cause of sleep."

Review.

Observations on the Present State of Pharmacy in Ireland, with an Exposure of certain extraordinary and illegal Steps taken by the Corporation of Apothecaries' Hall, Dublin. Also, Critical Remarks on the Proceedings and Opinions of the Dublin Committee, and Suggestions on the Subject of the Professional Education of Apothecaries, as a Groundwork for an amended Bill for the regulation of that Profession. By Denis Phelan, M.R.C.S. London. 8vo. pp. 160. Clonmel: J. Hackett. 1833.

The author is entitled to great credit and to the thanks of the Irish apothecaries for the manly exposure he has given of the abuses in the Dublin Hall. We fear, however, that it will be no easy matter to induce the Irish government to take up the subject; though from the straightforwardness of the new Secretary of State, Mr. Littleton, some good may be expected. It is most unfortunate for the friends of medical reform in Ireland that their government is so often changed. Lord Gower promised to bring in a new bill to obviate the defects of the existing statute. Mr. Stanley did the same; and doubtless so will the new Secretary; but such promises are not to be relied on, whether made by Whig or Tory. That a change is required in the Act will appear by the following extract from the work before us.

"Having taken the resolution of proceeding against some of those who were acting as apothecaries without a licence, and of admitting to an examination such as should submit to the payment of the fine, no matter how unqualified or uneducated these might be; the Company knew that it was necessary they should have some colourable pretext for such a step—one so directly opposed to the intentions of the legislature, and to the plain and obvious meaning of the Act. The directors accordingly drew up a case and submitted it to Counsellors Saurin, Holmes, North, and Wallace, who were requested to give their opinions regarding the legal construction of the legislative clauses of the Act, and whether one who demanded an examination as a master apothecary should have conformed to the 18th and 25th clauses—that he should have obtained the previous certificates, and *duly* served a seven years' apprenticeship; or whether, from a supposed imperfection in the 22nd clause, he was entitled to such examination, even though he had not complied with the other two, and if the latter were the case, could he, on the refusal of the Hall to examine him, compel them to do so by any process of law? The opinions of the lawyers, as usual, widely differed. Mr. Saurin had no doubt that *any person* was entitled to be examined, even though he had not complied with the 18th and 25th clauses; and added, that if the directors were to refuse an examination to any, the most ignorant *ploughman* or *tinker* in the kingdom, the Court of King's Bench would, if applied to on

the subject, grant an order to oblige the directors to examine such ignorant and unqualified person.

" Mr. Wallace, a sound constitutional lawyer, inferior in no respect to either of the other three, gave an opinion directly the reverse of Mr. Saurin's. He considered, that from the implied intention of the legislature, and the context of the whole Act, no one was entitled to an examination, as a master apothecary, until he had *duly* served an apprenticeship.

" Messrs. Holmes and North were of opinion, that the 22nd clause was so imperfect that *any person* was entitled to be examined as master, even though he were in no respect qualified. But the opinions of both these gentlemen would, I believe, have little weight in the eyes of any rational person, for they appear to doubt the accuracy of the conclusion to which they had arrived, and qualified their opinions considerably. Mr. North says, that *any one* under the operation of the 22nd clause is entitled to be examined as a master apothecary; and that if the directors refuse him such examination, they would be compelled to grant him it by an order of the Court of King's Bench; but he cautiously (and evidently distrusting his opinion) adds, 'if the Court (meaning the King's Bench) agree with me in opinion.' Mr. Holmes qualifies his in a more remarkable manner. He agrees in the imperfection of the 22nd clause, to which it would appear he paid most attention, and thinks, with Messrs. Saurin and North, that it was imperative on the directors to examine any unqualified persons as masters; but he adds these remarkable words: 'In the event of one of these unqualified persons applying to be examined, the Court (the Hall directors) should give him the examination, but *could* refuse him the certificate.' Now, I beg the reader's attention to this admission, especially as I have heard that it was principally by Mr. Holmes's advice the directors were influenced; for he, they say, it was who convinced them that the Court of King's Bench would grant a mandamus to *any one* to be examined as a master apothecary. Mr. Holmes, of course, before he gave this opinion, read the different clauses of the Act, from the 18th to the 26th inclusive. He of course knew that by 21st clause each examiner swears that he 'will faithfully, impartially, and honestly, according to the best of his skill and knowledge, execute the trust reposed in him as an examiner, without favour or affection, prejudice or malice.' He, must have known that the 22nd clause empowers the directors '*to grant or refuse* to the person so applying' a certificate to act as master apothecary. He also knew that the two Courts of Appeal had a similar power; where then was the necessity for Mr. Holmes to say that, though he thought the directors *should* examine, they *could* refuse the certificate? Surely men on their oaths, sworn to do their duty impartially and honestly, and empowered *to 'grant or refuse the certificate to such person so applying to them, as shall appear to such examiners properly qualified,'* would not be justified in refusing a certificate to any one whom they had examined, if they found him possessed of the degree of skill and knowledge necessary to enable him to conduct the business of an apothecary. It would be monstrous if this doctrine were acted on. If the examiners were bound to examine, even unqualified persons, they were equally bound by the oaths they had taken, to grant the certificate to such as appeared to them on examination to deserve it, as they were to refuse it to those whom they should find incompetent. Mr. Holmes is, I believe, not only an able lawyer, but a highly respectable and honest man, and I am sure, though his words here quoted imply that he would recommend the Hall directors to refuse the master's certificate to such unqualified persons as they might examine, even though these should answer well, yet I cannot believe he meant that these words should be taken in this their literal sense. Whatever obscurity there may

be on this subject, the subsequent conduct of the Hall removed; and to me it is quite evident that Mr. Holmes suspected, or had some private sources of information which confirmed him in the opinion, that the Hall company not only wished to examine all the unqualified persons who should apply to them, *but that they had some motive for wishing to grant them certificates,* otherwise he could never have suggested a line of conduct to the directors, in direct opposition to the meaning of the oath they had taken. But from his conversations or communications with them, it appears more likely that he saw what they were bent on, and as an honest man, he took this mode of cautioning them on the subject. From the case laid before him, Mr. Holmes knew that many of the class, (whom he considered entitled under the 22nd clause,) must necessarily be so ignorant that they would not be likely to undergo a fair and sufficient examination with success. A clear-sighted lawyer could readily perceive that the wish of the directors was, *first to make sure of the fine,* and then to examine. But such a man would know as well as the directors, that if once a few of these ignorant persons were examined on payment of the fine, and then rejected, few, if any more, would come for examination on the same conditions. They might claim to be examined without the payment of the 20*l.*, and if certificates were granted them, they would then gladly pay the fine, but on no other conditions, we may be certain, would they lay down 20*l.* until forced to do so by law,—a proceeding which, for many reasons, the Company wished to avoid. Mr. Holmes knew all this well, and most probably suspected that the plan contemplated by the directors was, to grant certificates to as many of these ignorant persons as came before them, or, at least, to the greatest number, as an encouragement to others similarly circumstanced, to pay their fines, with the almost certain prospect of obtaining the certificate. The above appendix to his opinion, therefore, I am confident, was only as much as to say, 'Gentlemen, I apprehend you not only wish to examine all who come before you for the master's certificate, who have subjected themselves to the penalty, but that you are also anxious to grant the greater part of them the licence, no matter how ignorant they may be, provided they first pay you the 20*l.*;—I therefore wish to caution you how you do so.' From this extraordinary addition to his opinion, it is pretty clear that Mr. Holmes did not study the act much, or aim at giving a sound constitutional opinion on it. But he has nevertheless thrown considerable light on the subject, and enables us plainly to judge of the motives which influenced the directors."

BOOKS.

An Inquiry into the Causes of Respiration of the Motion of the Blood, Animal Heat, Absorption, and Muscular Motion, with practical Inferences. By James Carson, M.D., Liverpool. Second Edition. London: Longman and Co. 1833.

This is an exceedingly interesting work, and has long since established the fame of its author.

CORRESPONDENTS.

A. B. is much too personal.

Z.—Summer Courses of Lectures are allowed by the Hall.

C.—The matter will be attended to.

Senex is, we fear, too sanguine.

A. E.—We intend very shortly to make extracts from the Foreign Journals; but we already give four pages of Dictionary every week, which is of this description. We agree with our correspondent that the contents of recent periodicals would be more interesting.

We are glad to notice that a subscription is commenced for the family of the late Dr. Watson.

Amount of Subscriptions already received in aid of Dr. Ryan . . £227 17 6

Erratum.—In Dr. Roots's last lecture, p. 526, third paragraph, twelfth line, dele *not.*

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 71. SATURDAY, JUNE 8, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XXXIX., DELIVERED JAN. 16, 1833.

Gentlemen,—You sometimes meet with fractures which continue for a long time without evincing any disposition to unite; and, in other instances, you find them losing all tendency to be consolidated by osseous matter, the ends of the bone becoming rounded and smoothed, and connected only by a fibrous ligamentous substance. Now, when this mode of union takes place, the case is said to terminate in the formation of an *artificial joint.* A main point in the treatment of such fractures, as have continued a long time without osseous union, is to ascertain the cause of the deviation from what is the usual course of things; for here, as well as in every other part of surgical practice, the cause of what is wrong should be investigated, because, as soon as it is removed, the effects will probably cease. Thus, if the continuance of a fracture in a disunited state were to depend on general indisposition or bad health, which you could remove, you would then be likely to bring about the cure of the injury of the bone; but it sometimes happens, that the cause of want of union in the fracture depends on a constitutional disease which is totally incurable. Thus, when no callus forms in a patient with cancer, there is little prospect of effecting the union of the bone by osseous matter, because no means are known by which the original disease can be cured, or the patient's state of health materially improved. The same may be said of mollities and fragilitas ossium, and of some other constitutional affections, in which we have no means capable of leading to the re-establishment of a sound state of the constitution. However, many diseases, causing this backwardness in fractured bones to unite by osseous matter, do admit of cure: such are rickets, scurvy, and lues venerea in its advanced stages. In these instances we may hope, by proper treatment, to bring about such an improvement in the health as shall be followed by a deposition of bony matter for the union of the fracture. With regard to rickets, gentlemen, I have told you, that I have attended many children in this state with fractured limbs, and that, in all these examples, I did not observe any remarkable indisposition of the broken bones to undergo bony union; and I mentioned to you, also, one instance in which I attended a pregnant woman with a fracture of both bones of the leg. Contrary to what might have been expected from some statements, in relation to the unfavourable influence of pregnancy on the production of callus, this fracture united very well in about the usual time. You will occasionally see examples, in which the formation of callus is kept back by illness excited by the state of the soft parts around the fracture, or occurring as an accidental complication. Thus, there will sometimes be an attack of fever or erysipelas, in which events, the formation of callus will be retarded as long as the general indisposition continues.

When the want of union is owing to the fragments not being properly in contact, or to the fracture not being well set, or to its being moved about too much, then the indication will be obvious—the bone must be better set—the fragments must be put in a state of more accurate coaptation, and such an apparatus employed, and such quietude of the limb observed, as shall more effectually and steadily maintain the reduction. However, these means will only answer when an artificial joint is not completely formed; for, after this has happened, you cannot expect that any improvement of the general health, or any means calculated to render the limb more motionless, will be attended with success.

If there be interposition of any soft parts, such as portions of muscle between the ends

of the broken bone, and thus preventing union, and you were sure that such complication was the cause of want of union, you would then be justified in making an incision and removing the parts interposed between the ends of the bone; but, I believe, the diagnosis would never be clear enough to vindicate such operation. In the same manner, if a portion of dead bone, a *sequestrum*, as it is termed, were to intervene between the ends of the fracture, and to prevent union, or retard it for a great length of time, the indication would be clear enough: you would be required to make such an incision as would enable you to remove the sequestrum. There is, undoubtedly, considerable difficulty in making out the exact state of things, when soft parts intervene between the ends of the fracture, and interrupt the formation of callus; but if you had grounds for suspecting the circumstance, you might begin with a more effectual extension of the limb, or with moving it rather freely about, by which means you might perhaps change the position of the ends of the bone, and remove the obstacle to union. I mentioned, in the last lecture, having been present at two dissections, in which this sort of complication was exemplified.

Now, gentlemen, when a bone has remained a considerable time without union, and common measures have been found unavailing, various methods for expediting the process of osseous union have been proposed by surgeons. The most ancient plan is that of moving the ends of the broken bone freely upon one another so as to excite a degree of inflammation in the parts about the injury; this plan has occasionally led to the establishment of the requisite process for the formation of callus. When Mr. John Hunter had occasion to treat patients in this condition, he sometimes made them get up and walk about with the splints on: I have seen this method tried at St. Bartholomew's Hospital, where it was not uncommonly resorted to at the period when I was a student. However, if an artificial joint be already formed, this plan will not have the desired effect, and other expedients will be necessary. One of these, first suggested by Mr. Charles White, of Manchester, consists in making an incision down to the fracture, and dividing the ligamentous connexion, then turning out the two ends of the bone and sawing them off; the limb being next carefully put up in splints, as in a case of recent fracture, and care taken that the two ends of the fracture are as correctly in contact as possible, and steadily thus maintained.

The first operation of this kind, performed by Mr. White, was attended with the most encouraging success: the case was one of a broken humerus, that had remained for a long time without bony union. The proceeding has been repeated by other surgeons, and with various results: sometimes the plan has had the desired effect, and sometimes it has not answered; nay, in certain instances, it has not only failed in procuring union of the bone, but occasioned loss of life. Richerand and Larrey mention cases which had this unfortunate termination. Of late years, therefore, surgeons have been more shy of resorting to White's operation, and not solely on account of its results having sometimes been so unfortunate, but also because another method has been proposed, which is, at all events, milder, if not more successful. The method to which I allude consists in introducing a seton between the ends of the disunited bone, in order to excite such inflammation in the situation of the fracture as may be followed by the formation of callus. Dr. Physic, of New York, proposed the seton, which he tried with success, first in a case of fracture of the lower jaw-bone, and afterwards in an instance of a broken thigh that had remained a long time without union. Experience has since proved, however, that the seton fails in a certain proportion of cases: I have seen two in which it did not answer, although it had had the fairest trial. I remember a man, in St. Bartholomew's Hospital, who broke his humerus, and the fracture, instead of uniting led to the production of an artificial joint. In this example, Mr. Long, one of the surgeons, cut down to the fracture and sawed off the ends of the bone; but, although this was most completely done, and the greatest care afterwards taken to keep the ends of the bone steadily in contact, no bony union followed. The same uncertainty of success attends the seton; but, as this latter plan is less severe than that of cutting down to the fracture and sawing off the ends of the bone, it seems to me to merit the preference. It may not answer; but its danger is not equal to that of the operation requisite to turn out the ends of the bone and saw them off. You may read in the Medico-Chirurgical Transactions the particulars of one case, in which a false joint had been formed in the femur, subsequently to a fracture; the joint was cut down to, and the ends of the bone removed with a saw; but so much indisposition resulted from the operation that the patient very nearly lost his life; and, as I have already observed, cases have occurred where it really proved fatal.

Instead of these methods, Mr. Amesbury thinks that another practice, which is still milder than that of the seton, will generally answer; namely, pressing the ends of the fracture methodically and strongly together: thus, when the humerus is broken, and the fracture is transverse, the pressure is made in the longitudinal direction, which is effected by means of a short sling, and an apparatus expressly calculated to fulfil the indication; but when the fracture is oblique, the pressure is made in the transverse direction, and with the requisite degree of force. According to Mr. Amesbury's account, this treatment has proved successful in several cases, and, as it is a mild and simple plan, I think that it ought always to be tried before the other more severe methods

are resorted to. But if an artificial joint were already completely formed, I should not expect that this mode of treatment would be effectual.

I come next, gentlemen, to the consideration of *compound fractures* of the limbs, and, more especially, of the leg and thigh. When a fracture is attended with a wound of the integuments and other soft parts, which wound leads down to, and communicates with, the interspace between the two ends of the broken bone, the accident is of a far more serious nature, and more apt to be followed by severe and dangerous consequences, than when no such wound is present: the case is termed a *compound fracture.* However, in order that the accident may truly partake of the character of a compound fracture, the mere presence of an external wound is not enough; it is essential that such wound should communicate with the fracture. Thus, a common wound in another part of the limb would not materially increase the risk, and would make little difference in relation to the fracture itself. Even if the wound were a bad one, it would not make the fracture *compound,* in the true sense of that term, as employed by British surgeons, but, according to the language of surgery, *complicated.*

In a *compound* fracture, the atmosphere has access to the space between the ends of the broken bone; and the wound is generally occasioned by the protrusion of one extremity of the fracture, except in gun-shot fractures, and some others produced by direct violence. You know very well that, in gun-shot fractures, the external wound is produced by the ball itself, or other substance, which breaks the bone, and, in some other instances, it may be caused by the same violence that breaks the bone, as when the accident is the result of the passage of the wheel of a heavy cart over the limb, or by the limb getting entangled in machinery. Under such circumstances, the same cause which fractures the bone may tear and mangle the soft parts, so as to occasion a wound communicating with the fracture. When the bone is broken obliquely, the extremities being sharp, one of them is very likely to be forced through the skin, particularly if the individual be intoxicated at the time of receiving the injury, and moves himself roughly and carelessly; also, if he be carried unskilfully by others, without the limb being duly supported, a protrusion of the bone will be likely to happen. In fact, many simple fractures are converted into compound ones by the awkward manner in which the patient is carried after he has received the injury; and Mr. Pott, who met with a compound fracture of one of his legs, by his horse falling as he was riding through a crowded part of the Borough, was so impressed with the danger frequently produced by the manner in which patients are carried after accidents of this kind, that, as soon as his misfortune occurred, which was in the most populous street and greatest thoroughfare near London bridge, he begged the bystanders, who surrounded him in great numbers, not to touch him until a door or some contrivance had been brought, on which he might be carried home without further harm. Individuals, who meet with bad fractures, should never be moved till a surgeon arrives to guide and direct the proceedings of those who are to convey them to the place where the treatment is to be conducted. How easy is it to convert a simple oblique fracture into a compound one by the careless and unskilful manner in which the patient is carried from the place where the accident has happened to his bed, is a circumstance, indeed, needing no further comment.

Now, gentlemen, when you are called to a bad compound fracture, the first question, which you will have to decide, is the same as that which I told you must always be determined in the early stage of bad gun-shot wounds, namely, whether the case will safely and judiciously admit of an attempt being made to save the limb? In all bad accidental injuries affecting the limbs, and caused by external violence, the principles of treatment are the same. I may observe, therefore, that what has been stated in these lectures, with regard to this question in relation to gun-shot wounds, is also perfectly applicable to bad compound fractures. If, then, from the first, there seems no probability that the limb can be saved, it will be your duty to amputate without delay. In fact, you will never afterwards have so good an opportunity of doing the operation with the prospect of saving the patient, because the constitution is now tranquil, in comparison with what it will soon be when inflammation and fever have commenced. You may remember that I inculcated this principle with regard to gun-shot wounds, and it applies to compound fractures as well as to all other bad injuries of the limbs from outward mechanical violence. If the present opportunity be neglected you may never have another, because inflammation will come on, followed by fever, and sometimes by a rapidly spreading mortification; and, even if the patient were to live beyond the first stages and dangers of inflammation, he would yet have to encounter a series of profuse abscesses of great extent, and hectic disturbance of the most alarming kind. After the suppurative stage, if the patient had passed through the first dangers, you would indeed have an opportunity of performing amputation; but not so advantageous an one as what presented itself before the system had become universally deranged by the effects of inflammation, great suffering, and severe hectic disturbance. At all events, if you do not amputate immediately, you must not do it until suppuration is established, unless mortification happen to come on, in which event you must recollect, that the case is one of *traumatic gangrene,* and that you are not to wait for the red line of separation. Here you should deviate from the general rule of not ampu-

tating in mortifications until that line is formed, because, if you were not to do so, the patient would generally die in twenty-four or forty-eight hours, without any line of demarcation having presented itself. But, if an attempt has been made to save the limb, and it is frustrated by the formation of enormous abscesses, tedious and extensive exfoliations, frequent returns of inflammation, or attacks of erysipelas, or by extreme prostration of strength, and all the urgent symptoms which I have, on a former occasion, described, as constituting hectic fever, tending to the patient's dissolution, you may then seize the best opportunity you can get of amputating the limb, because if you do not remove the cause of the hectic symptoms, the result will necessarily be fatal. How long you can rightly persevere in the endeavour to save a limb with bad compound fracture will, of course, depend partly on the state of the limb itself, and partly on the condition of the patient's health, the strength which he may retain, or the degree of hectic present.

I should not recommend amputation for compound fractures in the first instance, unless they were of the worst description; at this early period, the operation is only necessary when the bone is very badly shattered, and the soft parts extensively torn, or when a large joint happens to be seriously involved in the mischief. The superior skill, with which compound fractures are treated at the present day, is productive of a remarkable degree of success, many limbs being now saved which formerly would have been taken off without delay. In fact, with all the advantages of private practice, and the judicious principles, which prevail in this part of surgery, it is only the worst description of compound fractures which call either for primary or secondary amputation.

Supposing you have decided to attempt the preservation of the limb, the first indication, after you have reduced the fracture, is to endeavour to close the communication of the fracture with the atmosphere, by procuring union of the soft parts by the first intention. In this object you will sometimes succeed, but on other occasions you will fail, because the parts have been more or less torn and bruised, and not divided by a clean incision. Sir Astley Cooper's plan is to cover the external wound with lint dipped in the blood, a mode of dressing which effectually excludes the air, and disposes the wound to unite favourably; but this method, unobjectionable as it may be, is not exactly the common practice, and most surgeons bring the sides of the wound together with strips of adhesive plaster, just as is done for the union of ordinary incised wounds. By the means, which I have specified, you will sometimes succeed in uniting the wound, and then a vast deal of danger is removed, the compound fracture being, as it were, at once converted into a simple one. In certain instances, the wound only unites partially, and the rest suppurates; yet, if inflammation be kept within moderate bounds, the case will generally go on favourably. In other instances, no union takes place at all, the wound sloughs, and large abscesses form; there will then be a great deal of constitutional disturbance, and the case will not be free from danger.

The reduction of compound fractures is conducted on the same principles as those which are observed in the reduction of simple ones, regard being paid to the relaxation of the muscles, and to bring about the coaptation in the gentlest manner possible. Sometimes one of the ends of the fractured bone protrudes through the skin, and cannot be got back without a great deal of violence being done to the soft parts. In such a case, the projecting portion of bone should be sawn off, or the external wound enlarged, so as to allow the bone to be restored to its proper situation, without any further injury of the integuments.

When the fracture is both *comminuted* and *compound*, the first indication is to remove such spiculæ of bone as are perfectly loose, detached, and near the surface, and thus a considerable source of irritation will be removed. Of course, under such circumstances, there is little chance of the wound uniting by the first intention, yet the sooner the spiculæ are removed the better, as it will put the wound into a more favourable condition for healing without the formation of abscesses. Reduction having been accomplished, the next object is to close the wound accurately, either with strips of adhesive plaster or by covering it with lint dipped in the blood flowing from the part, as recommended by Sir Astley Cooper. The limb should then be enveloped in a cold evaporating lotion, in order to keep down inflammation. The best plan of proceeding, if it be a compound fracture of the leg, and you intend to put the limb in the bent posture, is to place the inferior splint with its padding, and the eighteen-tailed bandage under the fibular side of the limb. Then you should effect the reduction of the fracture, and having done this, and put the limb into the right position, next dress the wound itself, and lay down the tails of the bandage. It is a great advantage to have the splint arranged under the leg before you attend to the coaptation of the fracture; for, thus the limb lies steadily upon a convenient surface of support, and the rest of the necessary measures are completed without the ends of the fracture being again disturbed. I do not mean to say, that, in all compound fractures of the leg, the most eligible position is the bent one; but I am merely endeavouring to explain the method of putting on the apparatus, when that posture is adopted.

In all leading points, the treatment of compound fractures resembles that of simple ones, with the exception of the measures called for by the wound itself; and also of those plans, which may be rendered necessary by the

greater risk of inflammation, abscesses, and severe constitutional disturbance. Thus, the presence of a wound, if attended with suppuration, will make it necessary to undo the splints and bandage more frequently than would otherwise be the case. Here, gentlemen, I may remark, that cleanliness is a very essential point in the management of compound fractures; and, on this account, it is frequently advisable to put under the limb a piece of oiled silk, so as to keep the bedding from being soiled with the discharge; and, in the hot season, the parts may be bathed with a weak solution of the chloride of soda. When the discharge is profuse, it is sometimes a good plan to cover the pads with oiled skin, for then they can be washed every day, and kept perfectly clean with a sponge. While the inflammation is considerable, you should not put up a compound fracture too closely and tightly, because, in this state of things, the pressure of the bandages and splints will do more harm to the soft parts than good to the fracture. At the same time, I am of opinion, that those surgeons who do not put on splints at all, as long as the inflammation lasts, are not the best practitioners; and, as a general rule, I should say, that the sooner splints are applied the better; though there are man cases in which they cannot be put on tight, and others in which they should be dispensed with for a short time, particularly compound fractures of the elbow. In all common examples the practice of applying splints without delay is entitled to commendation; and I heard one of the most experienced surgeons in this country remark, a few months ago, that he had never had reason to repent of having put on splints too early in compound fractures, though he had sometimes had occasion to repent of not having put them on soon enough: he has resolved, therefore, always to apply them in future as soon after the accident as possible. At the same time, I may caution you not to apply them at first with immoderate tightness. In compound fractures of the lower extremity, a fracture-box is sometimes a better apparatus than common splints; for it affords great accommodation and convenience, having a foot-board which can be let down, and two sides which can also be let down at pleasure. The bottom, sides, and foot-board of this machine are duly lined and covered with cushions. Now, when the sides are brought up properly lined with soft materials, or well contrived cushions or pads, the limb feels much easier than with splints; and if there should be occasion to apply leeches, or any particular dressings, one of the sides of the fracture-box may be let down, and the business accomplished without any disturbance to the limb. Sometimes both sides of the machine are let down at once; and thus the limb may be examined, and any necessary dressings applied, without subjecting the parts to any kind of motion. The fracture-box, then, is a very essential apparatus in the treatment of many compound fractures of the leg.

For the prevention and diminution of inflammation, you will be obliged to have recourse to common antiphlogistic plans; but it is not an unusual belief, that patients with compound fractures, especially in London, will not bear venesection. No doubt there is some truth in this, for if the patient be much reduced by bleeding, he will not be able to get through all that he will have afterwards to encounter, namely, all the profuse discharge, and the long confinement and irritation which he must undergo during the treatment. Hence I recommend you to be circumspect with respect to venesection, but leeches, cold applications, and aperient medicines, not urged to such an extent as to disturb the limb too frequently, should not be neglected.

When the wound does not heal by the first intention, there is almost always considerable inflammation of the limb, and a more or less severe attack of inflammatory fever. Then if large abscesses form, hectic symptoms will soon take the place of those characterising the first description of fever. The treatment must now be regulated by those principles which I explained to you, when speaking of hectic fever; you should administer the sulphate of quinine and the diluted sulphuric acid to check the night sweats; you should give opium to procure rest; chalk mixture to relieve diarrhœa, and other medicines, called for by particular symptoms. With respect to abscesses, a most useful part of the treatment will consist in preventing the lodgment of matter; and you will generally find in these cases, that abscesses form in succession; first one forms, and as soon as it is discharged, another takes place; and so the case may go on for several weeks, with a repetition of fresh inflammation and abscesses. I believe, that, in compound fractures, the discharge of pus is sometimes kept up longer than it would otherwise be, by continuing the use of relaxing applications too long. If you have reason to suspect this circumstance, you should discontinue them, and substitute for them astringent lotions, made with the sulphate of zinc or of copper. Many practitioners are partial to the plan of making pressure on the situation of the matter with compresses; but, I think, that in general the best plan is to form an adequate outlet for its discharge, and employ bandages as soon as the inflammation subsides. If there be no sufficient outlet for the matter, I should say, that pressure cannot be of any service.

Another indication in the treatment of compound fractures, is to remove all loose portions of exfoliated bone. You will sometimes find, that patients will not recover until long, very long, after the occurrence of the accident; and one frequent cause of the difficulty of cure, is the presence of a portion of dead bone in the part. You know that the lodgment of a sequestrum will often retard the

union of bones, and in the last lecture, I showed you two specimens, in which this circumstance was illustrated. Such loose portions of dead bone should be removed as soon as they are known to exist; and this, even though they may be more or less entangled in the callus.

With respect to amputation, when hectic is present, you should take into consideration the severity of the constitutional symptoms, and also the particular state of the fracture itself; you should be guided by the combined consideration of these two circumstances; and when you see that perseverance in the attempt to save the limb will most likely end in the patient's destruction, you should seize the best opportunity, which circumstances afford, of performing amputation.

One other circumstance it may be right to mention, namely, that many patients with bad compound fractures die, not from the bad effects of the injury of the bone itself, or of any mischief resulting from it to the limb, but in consequence of sloughing of the soft parts over the sacrum or the trochanter, or over some other prominences of bone, where the skin particularly suffers pressure, in the usual position of the patient. You will see much mischief arise, not only from long confinement to bed by compound fractures, but from such confinement rendered indispensable by injuries of the spine, and various tedious diseases. In these examples, there is such languor of the system, such a weakness of circulation, and diminution of nervous influence, that the parts most exposed to pressure will frequently slough. You may sometimes prevent this formidable kind of gangrenous mischief, by changing the patient's position from time to time; by frequently bathing the parts with camphorated spirits, or a strong solution of the acetate of lead; and by placing the patient, if practicable, upon the hydrostatic bed. It might be imagined, that this contrivance would render the patient too moveable in a case of fractured leg; but the tendency to sloughing, of which I have been speaking, does not usually begin until a late stage of the case, when the bones are already more or less united, and not likely to receive any harm from being placed on the moveable, and, as it were, floating surface of the hydrostatic bed.

CLINICAL LECTURES

DELIVERED BY

DR. WILLIAM STOKES,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33

LECTURE V.

Pathology and Treatment of Hydrophobia.

Gentlemen,—Most of you have seen the case of hydrophobia which was brought into our hospital wards yesterday, and some, I believe, have witnessed its appalling termination this morning. As to giving a clinical lecture on the subject I really have some misgivings;—it appears little less than absurd to enter into a disquisition on hydrophobia in the present state of medical science, because you all know that every attempt hitherto made to investigate and discover its nature has been vain, and almost profitless, and that it is, in the fullest acceptation of the term, an incurable and hopeless disease. It is one of those cases which silently, though strongly, inculcates a lesson of humility, which no medical man can ever forget, teaching the student that his art, although grounded on centuries of experience, is still far short of perfection. But this should stimulate him to further exertions, in order to wipe off, if possible, one disease more from the list of irremediable and hopeless affections. I cannot conceive a more humiliating position for a medical practitioner who understands the human constitution, the principles on which medicine is based, and the mode in which those principles should be applied, than to be called to attend a patient in confirmed hydrophobia. Whatever way he turns his path must be in darkness; he has neither the light of theory nor of experience to guide him; and to this uncertainty is superadded the melancholy conviction, that his patient's days are numbered, and that his life, however dear and valued, is surely and rapidly hastening to its close.

I said, gentlemen, we had no light to guide us in the treatment of a case of hydrophobia. In the first place, we derive no assistance from theory: we know nothing of the seat or essence of the disease; and this is perhaps one of the most striking instances of the law, that pathological anatomy is our great light and guide in the practice of medicine. To practise scientifically and with success, we must not only be acquainted with symptoms, but also thoroughly conversant with the various phenomena of structural lesion; and the man who is not a pathological anatomist, is, in reality, nothing but an empiric: he may be a judicious one, but still he has no claim to the title of a scientific medical practitioner. If you look to the class of diseases, the treatment of which is least understood, you will find that they are all cases in the investigation of which pathological anatomy has made little or no advances, and that our treatment is always empirical in proportion to the paucity of our information respecting the nature and peculiarities of organic change. We have no idea of the pathology of hydrophobia; we have no conception of its nature; all we know is, that hydrophobic patients become subjected to some morbid influence: they appear to labour under the effects of a peculiar poison, but how this operates on the economy we know not. We are aware that they are seized with symptoms of appalling violence; we know that many lives have been cut short by it; but we are still ignorant of anything hitherto conceived capable

of effecting the slightest good in a case of hydrophobia. If we follow our patients to the dissecting room, and there carefully scrutinise the condition of every organ in the system, do we find any one single phenomenon likely to throw a ray of light on the darkness of our speculations? Not one. You will read accounts of cases of hydrophobia, in which it is stated, that in some instances there was considerable vascularity about the pharynx or trachea. This may be true; but the man who would attempt to explain the nature of hydrophobia by such appearances would be very sanguine indeed. You hear of vascularity and congestion being discovered in the brain or spinal cord, or in the ganglia of the sympathetic; or, lastly, you are told of vascularity in some part of the digestive tube. The fact is, that such appearances have been found in some cases of hydrophobia, but still we want evidence to prove their connexion with the disease. In many cases recorded by the most candid and judicious writers we find none of these phenomena at all. I mentioned, in my lectures at Park-street, that when the hydrophobic patient, who was some time since under the care of Dr. Graves, died, we made a most rigorous examination of every organ in the body; the cerebro-spinal system, the digestive apparatus, and the parenchymatous tissues, were all accurately and carefully examined, and the result was, that not a single trace of structural lesion, capable of giving any information as to the seat or nature of the disease, could be discovered.

You see, then, gentlemen, we have no light from theory or from pathology. We know nothing of the nature of hydrophobia; all we can say is what it is not. We can say that it is not inflammation of any organ or tissue of the body. We gain nothing by placing it in the class of neuroses and calling it a nervous disease: this is only a confession of our ignorance. But do we derive any assistance from experience? When we speak of experience we include the experiments of scientific practice and the results of empiricism. The cure of hydrophobia has been attempted by the most judicious and accomplished physicians and surgeons, and by the boldest and most reckless quacks; powerful and varied and opposite modes have been tried by each, and all have failed. The history of a case of hydrophobia is only a record of unsuccessful treatment. We have, therefore, no light from theory or experience; nay, further, we have no principle to guide us. Many diseases as well as this prove fatal from the violence of their symptoms; cases of enteritis and pneumonia and cerebral inflammation often cut short men's lives; but, in the treatment of all these we have principles to go by, and we know that the disease proves fatal from the extreme violence of its symptoms, or from the want of a mode of treatment adapted to the peculiar circumstances of the case. It is not, therefore, so humiliating to be called to attend an incurable case of enteritis or pneumonia as to one of this kind. In the former instances we know the nature of the disease, and that death is inevitable, in consequence of the extent of organic injury; but in a case of hydrophobia we know nothing of its essence or seat; we can only witness, with unavailing regret, a train of horrible symptoms, which our art can neither palliate nor remove.

I return now to our patient's case, of which the following is an abstract from the notes taken by Mr. Hudson.

"William Lamb, aged five years, admitted on the 15th of February, 1833. Three weeks before admission had been bitten by a dog on the chin in two places. The wounds were dressed with adhesive plaster, and healed in three or four days. When admitted the cicatrices were neither red nor painful.

"In the middle of the night of the 12th he had an attack of vomiting, followed by thirst, heat of skin, and extreme restlessness; he started constantly, ground his teeth, and screamed in his sleep. On the 13th he was observed to shudder while in the act of drinking; appeared much depressed in spirits, had a suspicious, frightened look, and avoided the society of his playmates. At night his symptoms increased in frequency and intensity. On the 14th he became uneasy in the recumbent posture, and would not allow himself to be covered with the bedclothes. He complained of great thirst, and though he would not take any drink from the hands of others, he eagerly grasped the vessel himself, gulped down a mouthful with an evidently powerful effort, and was instantly thrown into general convulsions. All night he had no sleep, and would not lie down, swallowed small quantities of water very frequently to allay his burning thirst, and had an attack of spasm at each attempt. He complained of pain in the head and over the epigastric region; the retching and other symptoms continued, and he was observed to rave. During the day his mother brought him to an apothecary's, where he had some purgative medicine.

"At two o'clock P. M. on the day of his admission, the following symptoms were noticed. He lay on his side, with his knees flexed, his face pale, and expressive of extreme terror and suspicion; his eyes wild, lustrous, perpetually wandering from object to object, and having their pupils dilated; pulse hurried, and quicker than natural; skin cool, tongue white, respiration not much hurried, but interrupted by sobbing at intervals, increased by the approach of one or more persons. He shuddered violently when touched by a cold hand, and had spasms of the arms, resembling those of chorea, with elevation of the head and trunk. On being more strongly excited, as by the sound of falling water, or the sight of a looking glass, he seemed as if stifled, sprang up in the bed, and had a general convulsion, affecting the muscles of the chest and upper extremities.

"He was ordered to have twelve leeches to the epigastrium, and afterwards a blister, to be dressed with three grains of the acetate of morphia; the body and lower extremities to be enveloped in a blanket, wrung out of hot water. A grain of strychnine was dissolved in one hundred drops of alcohol, and one drop of this solution given every half hour. At five P. M. he had a tobacco enema. The effect of the enema was to increase the spasms to a violent pitch, his skin became cold, and the pulse at the wrist could not be felt. At seven P. M. he still laboured under the narcotism produced by the tobacco; his skin was still cold, his pulse extremely small, weak, and accelerated, and the spasms occurred with greater frequency and violence than during the early part of the day. He was ordered a vapour bath, and to continue the strychnine. At ten he became more tranquil; the heat of the surface was fully restored, the skin was bathed in warm perspiration, and his spasms were less frequent; pulse about one hundred and thirty, respiration thirty-six. Though much easier than in the early part of the afternoon, it was evident that he was becoming progressively worse; his countenance, though flushed, exhibited much depression; his eyes had lost their fulness, and the pupils had now become contracted; respiration was interrupted by sobbing every minute, and there were mucous râles heard all over the chest. After this he gradually sank; his pulse became thready, and increased in frequency, averaging one hundred and sixty, respiration upwards of fifty; voice weak and stifled. His eyes had a sunken appearance, the pupils were contracted to a point, and for some time before death there was strabismus, with convulsive motions of the eyeballs. The sobbing respiration, grinding of teeth, and retching, became more frequent and constant, accompanied by reiterated accessions of violent spasms, foaming at the mouth, and opisthotonos. Shortly before death he became delirious, raving chiefly about the dog that bit him. About four o'clock on the morning of the 16th he had a violent general convulsion in which he expired."

Such, gentlemen, was the termination of this interesting case, and such the result of our treatment. It is unnecessary for me to state that I did not entertain the slightest hope of being able to effect any thing, and I would go farther, and say, that in the present state of medicine, and until we know something more of the nature of hydrophobia, it would be better to let such cases alone, and do nothing at all. And why is it, then, that we enter on a plan of treatment when called to attend an hydrophobic patient? Merely to save appearances, and in order that persons should not say that the case has been neglected and nothing done. I am of opinion that in the present state of our science it would be more humane to let the patient die unharassed by treatment, and not interfere at all. You can scarcely do any thing; you cannot apply any single remedy, or administer any single medicine, without bringing on violent spasms, and thus giving additional suffering. When any one suddenly approached this poor child, or opened a door, or laid a cold hand on him, you perceived it was followed by spasms. When an enema was given, when his epigastrium was sponged, when a single drop of strychnine was administered, general convulsions ensued. Every thing that was done only increased his agonies; and this is the reason that I say that it would be more humane to do nothing at all. The only excuse for entering on any plan of treatment is to save appearances. Under such circumstances I really think you are scarcely justified by reason or humanity in putting your patient to useless torture; and I say this because I am convinced that in confirmed hydrophobia, and in some cases of tetanus, *a great deal too much is done.* When a case of this kind comes into an hospital, or occurs in private practice, there is generally a crowded consultation of medical men, in which every one proposes his favourite remedy, a great variety of plans of treatment are adopted, and much injury and suffering is inflicted on the patient. With respect to tetanus I must confess that I have seen some cases in which the patients died more by the doctors than by the disease; and I believe the truth of this assertion can be borne out by the testimony of many. I have seen cases where ten or a dozen medical men came together, and appeared to look on the case of disease before them as a beleaguering party would on a fort, opening their batteries on every vulnerable point. I have seen in the space of a very few hours every variety of treatment adopted; the patient bled, placed in a warm bath, his head shaved, his spine cauterised, one hundred leeches applied, enormous quantities of croton oil given, scruple and half drachm doses of calomel, tobacco stupes, and enemata with opium and turpentine; in fact, a mode of practice sufficiently excessive in degree and rapid in transition to do the patient immense injury if he had no tetanus at all. As far as hydrophobia is concerned, at least, I believe nothing proves of the slightest use. We hear of some late cases, in which acetate of lead is stated to have proved serviceable. Of this it is reasonable that we should entertain very strong doubts; the remedy has been tried before and failed. And when we reflect on this fact, as well as on the universal fatality of all well authenticated cases of hydrophobia, the chances are that those cases which were cured by acetate of lead were not cases of hydrophobia at all. I shall say no more on this subject for the present, but at my next lecture I intend to lay before you some of the latest experiments on hydrophobia, and give a brief abstract of all that is known of a disease which has for centuries baffled the best directed efforts of medical skill.

I now beg leave to draw your attention to a

case of jaundice, in a young woman above stairs, in the small fever ward. It is an extremely important and instructive one, being a specimen of a very peculiar and, perhaps, the most frequent cause of icterus. The patient, a stout, healthy, well-fed girl, after very severe labour, and while in a great heat, took a large draught of cold water, and almost immediately afterwards was attacked with shivering and febrile excitement, followed in the course of three days by a jaundiced colour of the skin, and whitish stools. On admission she had a great deal of inflammatory fever, with prostration of strength, and complained of thirst, nausea, and loss of appetite, but no hepatitis could be discovered. In general, we may divide jaundice into those cases occurring with, and those without fever. Of those which come on without any fever we have instances in the jaundice which generally accompanies gall-stones. Those which are accompanied by fever, either arise from some form of hepatitis, or from the inflammation of some organ in the immediate vicinity of the liver. Now let us inquire what those organs in the vicinity of the liver are whose inflammation is attended by jaundice. It may be produced by inflammation of the stomach, or of the duodenum, or by pleuritis of the lower part of the right side. Of these, however, the stomach, and more particularly the duodenum, when inflamed, are most apt to bring on an attack of jaundice. It is of the greatest possible importance to remember this, and to bear in mind that we may have jaundice without any obstruction to the passage of bile, or any hepatic disease. Broussais was the first who drew the attention of the profession to this fact; and in the Dublin Hospital Reports you will find many cases detailed by Dr. Marsh of jaundice depending on inflammation of the duodenum. To this paper I would beg to direct your most particular attention.

In cases of this kind your diagnosis is to be guided by the following circumstances: first, an attack of this nature is preceded by bilious or gastric fever, and therefore there is a strong probability that it is connected with irritation of the stomach or duodenum; in the next place the ordinary symptoms of hepatitis are absent, particularly the important ones of pain and tumefaction. This peculiar form of disease is, I fear, not well understood or sufficiently recognised by the generality of medical practitioners. We all know that the obstruction which arises from the passage of gall-stones is a common cause of jaundice, but such cases are seldom accompanied by fever. Those cases of jaundice which depend on duodenal inflammation are supposed in the same way to be produced by obstruction of the duodenum; but it has been fully proved by dissection, that this opinion is totally erroneous; nay, more, it has been shown that there may be a persistent jaundice in cases of duodenitis, while at the same time the patient passes bilious stools. Such was the case of a man who was in these wards in whom these symptoms were extremely evident. You will therefore remark, that the diagnosis in such case is, jaundice preceded by gastric fever and unattended by hepatic inflammation. This form generally comes on after drinking cold water while heated by exercise, or is produced by excesses at table, or by mental emotions. Generally speaking, it is not a severe disease in this climate; but when it continues obstinate for a considerable time, or is accompanied by high fever, it is a dangerous affection, In warm countries it is much more violent, and seems to be quite analogous to yellow fever, for, as far as the seat of morbid action is concerned, they are the same,—both are febrile jaundice without mechanical obstruction.

A few words more with respect to the prognosis. When the jaundice becomes chronic, and the fever persistent, the prognosis is unfavourable. Under such circumstances we not only have a continued febrile excitement, but there are also frequent exacerbations; the patient is one day more, another day less yellow, a circumstance which I generally look upon as indicative of danger. Sometimes we observe a train of nervous symptoms, as delirium, coma, and subsultus tendinum, symptoms which were formerly supposed to be caused by morbid action of the brain, in consequence of the absorption of the bile. Such opinions, however, are now justly rejected, as untenable, by the best physiologists, for we seldom see them accompanying jaundice from obstruction by gall stones, and we know that they are generally produced by sympathetic irritation.

The mode in which we are to treat this form of jaundice is by bleeding in the first stage, repeated leeching, counter-irritation, cold and acidulated drinks, in fact, just as we would treat a case of gastric or duodenal inflammation. Under this treatment the febrile symptoms subside and the dejections become bilious, but if, after some time, this does not occur, we should exhibit small quantities of mercury. The best preparation we can use is the ointment, which can be employed by friction, or blisters may be dressed with it, so as to produce a gentle action on the salivary secretion. It would be useless to employ large quantities of mercury, for in several cases, which have occurred here, we found it almost impossible to produce salivation. To this fact I have drawn your attention on a former occasion, and it is worth holding in memory.

Gentlemen, I am obliged to conclude at present, but before we part I wish to show you a remarkable case of permanent fistula of the trachea. This man was a soldier, and served in the Burmese war; in an engagement his thyroid cartilage was torn away by a shot, and he lost a vast quantity of blood; he had for a considerable time the delirium which attends great loss of blood; he recovered under judicious treatment, but with a permanent

fistula of the trachea. He has, however, enjoyed a very good state of health. I have examined his chest with the stethoscope and cannot find any derangement of the respiratory apparatus.

The individual in question was introduced. He was a man rather below the middle size, of spare, hardy, weather-beaten appearance. When he expired, with his mouth and nostrils closed, the air rushed from the lungs, through the fistula, with a degree of force sufficient to blow out a candle. When he spoke, with the tracheal fistula uncovered, his voice was a deep hoarse bass, but when he placed his finger on the orifice, so as to confine the passage of the air, in speaking to its natural course, the sound was much sharper. The contrast between these two different intonations was very remarkable when he closed the tracheal opening in the middle of a sentence.

Dr. Stokes related another case of a similar kind, in which the patient was obliged to make use of a canula. He still lives, and *has been for a considerable time living a most abandomed life, under the idea that with such a state of the air-passage it would be quite impossible to hang him!!* With respect to the former case, Dr. Stokes remarked, that the modifications of respiration, produced by a closed or patent state of the tracheal fistula, were very remarkable. When the fistula is open, the respiration in the upper part of the lungs is tracheal or bronchial in character. He begged that those gentlemen, who were pursuing their stethoscopic studies, would attend to this peculiarity, as they might be called on to determine the presence or absence of tubercles in a person who had permanent fistula, and should remember that some of the signs of tubercular depositions may be produced by patency of an orifice in the trachea. But when such a person breathes with the fistula closed, and the chest is again examined, the bronchial or tracheal respiration disappears if there be no tubercles present the natural respiration is heard, and this enables the medical attendant to come to a just decision on the case. If, however, the circumstances of the case were such as that the patient could breathe only through the fistulous opening, the diagnosis would be attended with much more difficulty. Dr. Stokes requested that the gentlemen present would examine the man, and satisfy themselves of the correctness of what had been stated respecting the modifications, produced by this species of false passage on the current air in the bronchial tubes.

OBSERVATIONS ON THE HISTORY OF OXALIC ACID AS A POISON.

Read before the Medico-Botanical Society, Tuesday, 26th March,

BY J. CLENDINNING, A.M., M.D., &c.,

Lecturer on Toxicology to the Society.

Oxalic acid came first under the notice of the toxicologist about twenty years ago. Its chemical properties had attracted attention many years before, but I find no recorded death or mischief by it of earlier date than 1814. In one of the numbers of the London Medical Repository for that year, a case of poisoning by the acid was recorded by Mr. Royston; nor do I find that its noxious qualities were made objects of experimental enquiry earlier than 1815, when the particulars of three experiments with the poison, together with important pathological and chemical observations, were communicated to the public in the third volume of the valuable periodical above-mentioned, by one of the editors, Mr. now Dr. Thomson, professor in the University of London. But the fullest account of it, physiological, pathological, chemical, and practical, is that of Drs. Coindet and Christison, published in the nineteenth volume of the Edinburgh Medical and Surgical Journal. On the continent, the aperient salts, that the acid resembles, are little used, particularly in France, so that accidents have been rare, and the poison has consequently derived its principal elucidations from writers in this island. Within a very few years an elaborate enquiry has been instituted in Germany by Dr. Pommer, the particulars of which are noticed in the Salzburgh Medicinisch Chirurgische Zeitung for 1828, but the results obtained by Dr. Pommer are valuable, principally as confirmations of the statements of Drs. Coindet and Christison.

Since 1814, however, it has fully vindicated its dignity as an active poison, and has occasioned more accidental deaths than perhaps any other. The frequency of accidents has arisen from several causes. It bears an unalarming name,—a compound consisting of supertartrate of potass and hyperoxalate of potass is popularly known by the name of essential salts of lemons. It is much used by servants for taking out ink stains, and cleaning harness, and by dyers, I think, on a large scale in the preparation of cottons. But the worst feature in its character is its treacherous resemblance to the aperient salts, commonly sold by retail under the name of Epsom salts. Under that name passed very generally, until recently I believe, a mixture of sulphate of magnesia and soda, that might easily be mistaken for oxalic acid, as might oxalic acid conversely for it. The acid resembles the salts in colour, in solubility, requiring more water considerably however, and in the form of its crystals.

Though but of late years, comparatively, known even to chemists, oxalic acid is widely distributed. It occurs in numerous vegetable forms; it has been found in the parsley, the bistort, the fennel, the red gentian, the liquorice root, the mandrake, in some species of iris, in squill, tormentil, valerian, ginger, and other common plants. It has been detected likewise in several barks,—the canella alba, cinnamon, cascarilla, quassia, oak, simarouba, elm, and other barks. In all these roots and barks it exists in the form of oxalate of lime. In a variety of lichens of the crustaceous kind, found in desolate spots towards the summits of mountains, this salt exists in very large proportions. It seems to serve to these vegeto-mineral plants the office that phosphate of lime does in man; it gives them the rigidity so much required in their favourite regions of storms and hail. Braconnot has found in some specimens as much as fifty per cent. of the oxalate. Every one knows the acidulous taste of several of the sorrels. The wood sorrel (*rumex acetosa*) grows in every damp wood and shady place, often by the road side in this country. The common sorrel (*oxalis acetosella*), and which has given its name to the poisonous substance the subject of my present address, is much used abroad, particularly in France, as a condiment with eggs, veal, &c., *œufs à l'oseille, fricandeau à l'oseille, &c. &c.* That plant owes its agreeable acidulous flavour entirely to the hyperoxalate of potass it contains. The chick pea, the *cicer parietinum* of botanists, which forms an ingredient in the Spanish *olla podrida*, contains some pure oxalic acid, the only plant that has it uncombined. Deyeux ascertained, by cutting the hairs of the plant, that those parts give out, on being thus wounded, a diluted but pure acid. The common domestic remedy, rhubarb, has been declared by Henry of Paris, in a late publication, to contain more than thirty per cent. of oxalate of lime. It constitutes, likewise, a frequent inhabitant of the human bladder, in the shape of the mulberry calculus.

But the oxalic acid of commerce is not derived from any of these sources: they are too scanty by far. It is manufactured by distilling nitric acid off animal and vegetable substances, principally off sugar, a process which it is not in my brief to describe, and which has, at all events, been in a much better manner done by my able colleague Mr. Everitt. I shall merely mention, that it has been obtained by distilling nitric acid off honey, gum arabic, alcohol, and certain animal calculi, by Bergman; from the uncrystallisable part of lemon juice, by Scheele; from the acid of cherries and of tartar, by Hermbstadt; from beech wood, by Göttling; from the acid and saccharine contents of currants, citrons, cherries, and raspberries, by Westrumb; and from silk, hair, tendons, wool, the crassamentum of the blood, the albumen ovi, and from starch and gluten, by Berthollet; and Gay Lussac is said to have obtained it—and a learned friend of mine, a lecturer on toxicology, assures me he has obtained it—by submitting animal matter to the action of caustic potass.

PHYSIOLOGICAL EFFECTS.

Oxalic acid acts as a local or as a general or constitutional poison, according to the dose and manner of administration. If taken concentrated and in large doses, an ounce or more for example, it proves very rapidly fatal, by syncope. Like a cold draught taken after exhaustion by active exertion in hot weather, or like a violent blow on the stomach, it inflicts immediate irreparable injury on the vital properties of the organ; the consequence is, gastritis of the most agonising and rapidly fatal character, attended by depression of the heart's action, and speedily by mortal faintness resembling the collapse of cholera, quickly terminating in death. The stomach is found, on inspection shortly after death, something approaching in appearance to that of patients who have died of yellow fever; it is extremely vascular; the mucous membrane inflamed, and in spots gangrenous; and the cavity of the organ contains coffee-grounds, fluids, or vomito prieto. If the dissection be deferred for some hours, and still more remarkably if for a day or more, the mucous and muscular coats and intervening cellular tissue are corroded by the acid, if ingested in a concentrated state, and rendered quite pulpy and gelatinous, or even to a greater or less extent quite dissolved; and in some cases the peritoneum has scarcely escaped chemical injury. Minute injection of the serous coat, and of what remains free from disorganisation by inflammation and corrosion of the mucous coat, is almost always observed, and this extends occasionally to the neighbouring portions of the alimentary canal. No other organ than the stomach necessarily suffers organic injury, nor are cases even from the concentrated acid wanting, in which that viscus likewise has been found free of blemish or disease. It is remarkable that the bowels seldom suffer much, and that those sanguinolent dejections that we should probably expect, have been seldom observed. When death has taken place by syncope, the heart is found to have lost all its irritability, and to be loaded on its left side with venous blood; but in the blood itself, even when injected into a large vein, it has been, by Christison and Coindet, found to produce no change, which Pommer confirms, (Marx, Gift. Lehre, 2 Abtheilung, B. 167,) having found the crasis, consistence, colour, and arterialisation, unaffected by it. Death may follow the ingestion of the poison in a very few minutes, and seldom waits more than an hour or two for its victim. Drs. Christison and Coindet, in their joint communication in the Edinburgh Medical and Surgical Journal above referred to, state, that they have known an animal to expire in two minutes after the injection of a considerable dose into the sto-

mach. If the acid be much diluted, it acts no longer as a violent local irritant, produces little epigastric pain, and no gastritis in many cases, but proves, cæteris paribus, still more rapidly fatal. Drs. Christison and Coindet, indeed, assure us, that *a small quantity of acid kills an animal ten or twelve times sooner when much diluted than when highly concentrated*, it is then apparently absorbed, and destroys life by syncope, tetanus, or coma, according to the quantity introduced into or applied to the body. Dr. Christison seems to think that the dose of the acid might be so graduated as to prove fatal in whichever way of the three might be preferred; syncope being the form of death from a large diluted dose, tetanus from a lesser quantity, and coma that from the least quantity of largely diluted acid that would be fatal. The effects of the diluted acid have been found by experimentalists identical to whatsoever part it may have been applied, namely, whether injected into the pleura, peritoneum, lungs, stomach, &c. Like most other poisons, it is especially fatal when injected into the blood-vessels; yet, strange to say, the blood with which it has been commingled seems quite unaltered and normal, and no certain trace has yet in such experiments been detected of the acid in the heart or great vessels, even though examined immediately almost after the introduction of the poison. Dr. Thomson mentions, indeed, that he has observed an acid in the blood of the heart in two of his experiments, as evidenced by the reddening of litmus paper; but I am much disposed to think, with Professor Christison and Dr. Coindet, that Dr. Thomson and Dr. Perey, who I understand coincides with Dr Thomson, (but whose work I have not had an opportunity of consulting,) have been *deceived by not allowing for the tint which the litmus acquires from the colouring matter of the blood, and which M.M. Christison and Coindet always removed easily by washing.* Of course no vestige of its presence in any of the secretions or excretions can be expected, so rapid is its escape beyond the reach of any test when in the blood vessels, that it is very plausibly held by good authority that it is immediately decomposed on mingling with the blood; nor does it seem easy to explain credible statements otherwise.

The only visible organic changes observed in the bodies of the victims of this poison, when diluted, is a flaccid irritable pulmonary heart, and morbid appearances in the gullet resembling those of the *gastro-enterite.*

The treatment consists in filling the stomach as quickly as possible with magnesia or chalk suspended in water, of which undoubtedly magnesia is the more proper, as containing no elastic material or gas. If that measure can be had recourse to immediately, the business is cut short at once, the acid is neutralised, an insoluble salt is formed, and there is no more danger. Christison advises that even the mortar of the walls should be knocked off and pulverised and swallowed, if pure chalk or magnesia are not at hand. If there be no antidote at hand, vomiting should be immediately provoked, or the stomach pump should be used without a moment's delay, for every minute intervening between the introduction of the poison and its ejection from or neutralisation in the stomach is precious, and a few minutes' delay will be sufficient to enable the enemy to get too far a-head to be ever overtaken. Should gastritis set in, of course local and general antiphlogistic treatment should be employed, as circumstances may indicate. After the subdual of the inflammatory symptoms, a free use of opium, alcohol, and other calmants and stimulants may be necessary, and will be indicated by symptoms, such as coldness of surface, extreme weakness or absence of pulse, and other expressions of perilous depression of the energies of the circulating system. In some instances, where the local symptoms are rather those of irritation than inflammation, and in most cases probably of poisoning by the very dilute acid, remedies of the class last alluded to may be required, if not from the very commencement, at least from the moment we feel satisfied there is no longer free acid in the stomach. Before having effected the capital object of neutralising or dislodging the poison, it will be better, perhaps, not to divide our attention. Before concluding this head, I would warn practitioners against the use of the perfect alkalies; it is a law of toxicology, first ascertained, I believe, but at all events first announced, by Drs. Christison and Coindet, (Duncan's Journal, vol. 19,) that poisons that act by absorption, and independently of local irritation, are noxious in all their soluble combinations. Further, it has been ascertained that the compounds of oxalic acid, ammonia, or potass are little less mischievous than the pure acid. The use of the pure alkalies, therefore, could at the utmost but diminish or prevent the organic mischief to be apprehended from a concentrated dose, an advantage which would be more than neutralised by their irritating quality, particularly in the case of ammonia, and secondly, by their facilitating absorption in preventing inflammation, &c.

CLINICAL REPORTS,

BY JOHN M. BANNER, ESQ.

Liverpool.

Case I.—Transfusion.

Mrs. H———, aged twenty-eight years, of very delicate habit of body, was married at the age of nineteen, has had four children, and two abortions; was delivered of her last child in September, 1832. On the 26th of April last was affected with a discharge of

blood from the vagina, which, on parting with several coagula, ceased for a while; this discharge recurred at intervals, more or less, until the 30th, when I was sent for; the catamenia had been regular for several months until now, when she had gone eight or ten days beyond the usual period, she conceived it to be nothing more than the catamenial discharge, but finding it greater in quantity and of longer duration than on ordinary occasions, had sent for medical aid. The patient states, that on the 27th she parted with one coagulum, to which was attached what appeared to be a fine membranous bag, this was, however, thrown away, and I had no opportunity of examining it; the pulse was regular, the tongue clean; skin rather hot; slight thirst; bowels regular, quite free from pain; the discharge was florid, though small in quantity; she had been employed in her household affairs, and had not made any alteration in her mode of living; she was ordered to lie in a bent position, to take cooling drinks, and the following medicine every four hours.

℞. Mag. sulphatis ʒj;
Inf. rosæ ʒxj;
Acidi sulph. dilut. ♏v. M. Ft. haustus.

May 1st. The discharge has nearly ceased; she has not parted with any coagula; pulse regular; thirst less; skin cool; the bowels have been acted on several times. Ordered to continue the medicine, without the sulphate of magnesia.

2nd. The patient felt so much better, that she was induced to exert herself a little in the management of her house; a return of hæmorrhage was the consequence; after parting with a coagulum, of about six ounces in weight, by quiet, and the application of cold lotion to the abdomen and thighs, the discharge stopped. The pulse was much reduced; giddiness was produced on raising the head; she complains of dryness of the mouth, thirst, and pain across the loins, descending to the thighs. The mixture was continued with an addition of nitrate of potash.

4th. She has continued much better up to the night of this date, when hæmorrhage again took place, the patient had been somewhat excited in the course of the day by unpleasant intelligence; she complains of having had unnatural sleep, with frightful dreams; she is labouring under considerable excitement; pulse quick and small; throbbing at the temples and neck; tongue clean and moist; the bowels have been acted on; by the application of cold the discharge again ceased. Thirty-five drops of laudanum were given.

5th. The opium had the effect of allaying the irritation and producing several hours' sleep; there is now a constant discharge, though in a slight degree; the napkins have been removed every one or two hours, each has been a little discoloured. The tongue is slightly furred; the pulse very weak at 80; the bowels inactive; the room kept cool, and cold lotion constantly applied. Continues the medicine. Vespere; the patient has passed a tolerable day; the discharge continues slight; pulse at 76, and rather stronger; bowels remain inactive; she complains of pain in the head. A mild aperient was prescribed.

6th. Four o'clock, A. M. I was called to Mrs. H——, she had parted with another coagulum, the hæmorrhage was increased, the pulse was irritable, and the patient was restless; thirty-five drops of laudanum were given, and the cold application continued; shortly the discharge diminished considerably, the patient became tranquil, and slept a little; at seven A. M. Dr. Jeffreys attended in consultation. The bowels have not been acted on, the discharge continues slight. An enema of common salt and cold water was administered, the medicine was ordered to be continued, with an increased dose of nitrate of potash. The enema was retained fifteen minutes; the discharge quite ceased for a time. In the afternoon the hæmorrhage recurred, enemas of cold water were administered every three or four hours; at the time of voiding them, (which was always attended with considerable tenesmus,) several small coagula were parted with, and the patient complained of feeling distress from their effects. The pulse, though very weak, is regular; the tongue slightly coated, and complains of thirst; the cold applications have been continued to the abdomen, and soda water given in small quantities; the enemas were discontinued.

8th. The hæmorrhage is producing the most debilitating effects, it has increased since yesterday: the pulse is small, quick, and irritable, the breathing slow and laboured; anxiety of countenance; two grains of solid opium were given and repeated in two hours, which allayed the irritability of the pulse, reduced it to 80, and strengthened it, but in no way diminished the discharge of blood. A scruple of the ergot of rye was given, and a cold enema with alum administered.

Nine A. M. Mr. Bickersteth met in consultation; the ergot of rye was to be continued every half hour, and iced water applied constantly. After the third dose of the ergot had been given, vomiting came on, which produced great exhaustion, but little abatement of the hæmorrhage; five doses were taken, they did not appear to produce any action in the uterus.

Eleven A. M. The pulse is scarcely perceptible; great listlessness, with stupor, occasional hiccough and vomiting; the discharge continues very slight, yet from the state of the patient is serious, of a florid colour. Iced water was injected into the vagina with some effect, and repeated every ten or fifteen minutes. Brandy was given in small quantities; after one P. M. the patient appeared to be sinking fast, the discharge continued, though very slight; the pulse could be occasionally felt; the breathing very slow and weak; the eye half-closed and glassy; the urine parted with

involuntarily; occasional hiccough. The finger was introduced into the vagina, which contained a large coagulum, the os uteri was sufficiently open to admit the finger; from within the neck of the uterus was hanging a fine membrane, which was removed with the coagulum; the uterus contracted slightly on the finger after withdrawing it. Iced water was again injected, and a plug introduced; during the whole of this operation the patient appeared unconscious.

Mr. Bickersteth, as a last means, proposed the operation of transfusion, which was agreed to, and was immediately commenced as follows.

Blundell's apparatus was used.—I made an incision at the bend of the right arm, and laid bare the vein for three-quarters of an inch. The apparatus was immersed in warm water, and placed in a convenient position; a ligature was now applied round the husband's arm; I made a small opening into the patient's vein with a lancet; the small loose pipe was introduced into it, and held there by an assistant. A large orifice was made in the husband's vein, from which the blood issued freely into the receiver of the instrument; the syringe was now exhausted of its atmospheric air, and the elastic tube was attached to the pipe already in the patient's vein. Mr. Bickersteth attended to the pipe and arm, Dr. Jeffreys attended to the state of the pulse and breathing, whilst I pumped slowly about five syringefuls of blood into the system, when, from the increased oppression in breathing, it was thought proper to rest awhile. After waiting a few minutes the lungs appeared somewhat relieved, and I introduced two syringefuls more, when the breathing became again more laborious, the pulse became perceptible, though fluttering. I experienced slight difficulty in pressing down the piston whilst introducing the last quantities of blood; this no doubt was occasioned by the blood having got thickened whilst waiting. During the operation the patient appeared still unconscious. The wound was dressed simply. Shortly after the transfusion the pulse remained fluttering, sometimes imperceptible; the breathing became scarcely perceptible; the body became cold and clammy, and to all appearance the patient was dying. She remained in this state until three o'clock, P. M., when the pulse could be felt at the wrist, the breathing was more regular; she was enabled to swallow brandy, very weak, and in small quantities;—if more than a teaspoonful was given at one time hiccough was occasioned, which produced great distress;—the symptoms assumed very gradually a more favourable appearance until eleven o'clock P. M., when the patient became restless, wishing constantly to have her position changed; the pulse was now quicker and stronger; she complained of great thirst and heating pain in the head; the tongue was coated with a brown fur, though moist. The symptoms varied every hour; sometimes there was great depression with scarcely any pulse; at others excitement. Stimulants and soda water, with cooling drink were administered, according to circumstances.

During the day the patient took nearly half a pint of brandy, in small quantities at a time, between the hours of seven o'clock A. M. and one P. M., besides port wine in a considerable quantity, without producing any change of the pulse.

9th. The patient is better in every respect, the pulse is low but more regular, the breathing more natural, the thirst and restlessness diminished. Brandy, soda water, and calves-foot jelly (made fluid by heat), were alternately given in small quantities every ten or fifteen minutes. There is retention of urine, probably from the plug pressing against the neck of the bladder; the catheter was introduced, and urine of good colour drawn off.

10th. There is a fœtid discharge from the vagina; the retention of urine continues; the bowels have not been acted on since the operation; the tongue furred; the pulse in the arm operated on is at 110, whilst in the opposite one it is 90, and feeble; there is slight pain and stiffness in the arm; the wound looks healthy and healing.

The catheter was again introduced; the plug was removed, it was saturated with offensive matter,—the removal gave great relief. A small dose of castor oil was given, and repeated in the evening, when the bowels were acted on; the irritation, which had existed more or less since the night of the operation, now began rapidly to subside; the pulse was at 80; the countenance better.

The patient has gradually recovered by the use of mild tonics and light diet. It was not until the seventh day after the operation that the pulsation became the same in each arm, it having continued quicker in that operated on. On the 14th day the patient was able to be moved from her bed to a couch; and on the 21st day was removed into the country.

The rallying effects from the operation of transfusion are not so immediate as I had been led to suppose; if it had not been for the oppression in the breathing which was produced, I should have considered the immediate effects on the system trifling; the pulse became perceptible, but nothing more, and for more than an hour after the operation the patient remained in a more debilitated state than before it;—I feared hæmorrhage was going on internally at this period, which, however, was not the case. About this time an evident alteration took place in the breathing and in the pulse. The quantity of blood injected cannot be correctly ascertained; I must have emptied the syringe six or seven times, which will contain two ounces: the quantity introduced, no doubt kept up vitality, and enabled the system to rally. In the first instance about five syringefuls of blood were pumped into the system before

the breathing became difficult; only two were introduced afterwards, when the same effect was produced. This justified us in not persevering with the injection. May not much depend on the quality of the blood injected? —In the case alluded to the blood introduced was taken from a man of a full plethoric habit of body; had it been taken from a person of a similar constitution to the patient, would it not have been more congenial to the system? and could not a larger quantity have been introduced before the lungs became congested? and by doing so produce a more immediate effect on the system generally. The more I reflect on transfusion, the more I feel convinced of its usefulness, as a means of saving life, in cases of extreme danger from the effects of hæmorrhage.

In the case of Mrs. H——, the low state to which she was brought, and the long state of syncope which she was in, allowed coagula to form in the mouths of the bleeding vessels, and thus prevented a return of hæmorrhage.

Case II.—Acute Traumatic Opisthotonos.

Thomas Price, aged 27, was admitted a patient of the North Dispensary on the 22nd of April last. He was a labourer of healthy constitution; had been fighting, was thrown, and by the fall received a compound dislocation of the second joint of the left thumb, accompanied with severe laceration of the integuments on the palmar surface, through which the extremity of the second phalange protruded. The dislocation was reduced, and the wound dressed by an apothecary of the Dispensary. He was ordered to attend the surgeon on the following morning, instead of which, however, he went, by the recommendation of his friends, to a farrier, who undertook to perform a cure in a month. By him the dressings were removed, and the wound was dressed daily with an embrocation used for horses, generally known by the name of the "Red Bottle," composed of spirit of turpentine, nitre, tincture of myrrh, and other ingredients On the evening of Wednesday, the 1st of May, the wound felt much more painful than usual, and he observed, that when he yawned or opened his mouth wide he experienced pain in the neck, under the jaw, and at the root of the tongue; this pain continued during the following day, accompanied with stiffness of the neck. He walked about, however, as usual; slept ill during the night; and on the morning of the 3rd left home with the intention of having his thumb dressed as usual, but suffered so much pain from the neck and wound, that he was obliged to return, and the farrier was sent for to him; he ordered the same application to be continued. The tetanic symptoms had much increased by this time, which he was informed of; he made light of them, and said the patient was suffering from influenza.

May 4th.—A note of recommendation was received at the North Dispensary from Price. Mr. Shepherd, the house-surgeon, visited him about half past ten in the morning, when the above statement was given by the patient. He was labouring under symptoms of acute traumatic opisthotonos. He could not separate his teeth more than half an inch; there was great rigidity of the muscles of the back part of the neck and of all the dorsal muscles, so that his head could not be raised without raising the whole body; twitching of the muscles occurred at intervals; the diaphragm was most severely affected with spasm, which produced fits of coughing, and caused great distress. The act of deglutition always produced the spasmodic twitchings, particularly of the diaphragm; the flexor muscles of the extremities were more affected than the extensors, and those of the left side (the side of the injury) more than the right. The pulse was full and quick. The end of the injured thumb was sloughing; the dislocated extremity of the first phalanx was protruding and carious; the wound looked irritable, dry, and gangrenous. He was bled largely; ten grains of calomel and two drops of croton oil were given. Turpentine enemas were ordered to be administered every three hours, and half-drachm doses of laudanum with camphor were given every hour.

Three o'clock P. M.—The patient was much in the same state: the remedies seemed to have produced little or no effect. I was now sent for, but could not visit the case for some time. I found the patient labouring under the symptoms that have been described by the house-surgeon; he was complaining of excessive thirst, and yet, from the effects produced by deglutition, dreaded to relieve it. The pulse was very quick and feeble; the thumb looked very irritable, and nature had nearly produced a separation at the joint. I amputated the thumb at the metacarpal bone, and included the whole of the diseased portion. Nine grains of calomel and three of opium were given, and four and a half grains of calomel and two grains of opium were ordered to be given every hour; the mixture of laudanum and camphor was discontinued. A narrow blister plaster was applied on each side of the spine, from the nape of the neck to the sacrum.

5th.—His bowels have been copiously acted on; after the evacuations he felt relieved and was able to sleep for the first time since the 3rd inst.; he slept upwards of an hour without interruption; the twitchings are less frequent and less severe; the rigidity of the muscles is less; the thirst is still great; the gums are slightly affected by the mercury. He was directed to continue the calomel and opium as before, and to have another turpentine enema administered. The bowels were again well acted on by the injection; the blisters had partially risen; the hand was quite easy, and free from swelling. He slept occasionally during the day, and continued better until six o'clock P. M., when the difficulty of swallowing

returned with greater violence, and the tetanic twitchings recurred with more than their former severity. At half past eight P. M. the house-surgeon visited him; he was unable to swallow or speak, although he was quite sensible; there was great anxiety of countenance, and rigidity of the whole body; the heart's action was most violent, while the pulse at the wrist was imperceptible. Shortly afterwards he died. The friends of the deceased would not allow an examination of the body.

CASE III.—POISONING BY OPIUM.

I visited H. B. B. on the 4th May, 1833, a fine boy, aged 3 months. The history of the case was given as follows:—from the 25th to the 30th of April last, he was slightly affected with symptoms of the prevailing epidemic; of this complaint he had quite recovered, with the exception of a slight cough; a mixture had been prescribed, composed of ipecacuanha wine, syrup of tolu, and water; this mixture he had taken occasionally for the last few days. On the morning of the 4th of May he awoke about 7 o'clock, and appeared in perfect health; took his usual food; was washed and dressed; and had his bowels acted on, the stool was large, of good colour, and consistence; during the process of dressing it was with difficulty he could be kept awake. After having been in bed three hours, was found in a state of convulsions; Mr. Pennington was in attendance, from the symptoms, and from an observation which fell from one of the servants, he was induced to suspect that laudanum had been given. The servant stated, that she had intended giving a teaspoonful of the mixture alluded to, when she found that, by mistake, she had poured out a teaspoonful of laudanum, having taken the wrong bottle, but declared most positively the child had not taken any; the night-dress was, however, found stained in several places with laudanum. Mr. Pennington had given two teaspoonfuls of ipecacuanha wine, and applied mustard and vinegar to the epigastric region; he had also administered an enema of common salt and gruel. It was at this time that I arrived (12 o'clock at noon). The pulse was slow; face livid; breathing stertorous; the eye insensible to light, the pupil contracted to the smallest point; any sudden sound roused him for an instant, when he again fell into the same torpid state. The injection came away with a small quantity of fæculent matter; the emetic had not acted; in the first instance the friends had put him into a warm bath. We thought it necessary to apply a leech to the ankle, for the purpose of relieving the congestion of the brain; after its application the breathing became less oppressed, and in some degree the purple appearance of the face was removed. It was now about four hours and a half since he had the laudanum given, the quantity must have been very small, from the length of time that transpired before urgent symptoms were produced. At this period he could not swallow; the extremities were becoming cold; the eye glazed; the pulse weaker; the breathing very laborious. I administered an enema, composed of two drachms of spirit of turpentine and three ounces of gruel; this produced slight irritation, which continued about fifteen minutes after the enema was parted with; the pulse became quick; the breathing became more natural; the extremities warmer: so soon, however, as the effects of the turpentine went off, the same torpid state returned. I repeated the enemas four times (increasing the strength of each, as I found the case required stronger stimulus as it advanced) with the same effect; after the fourth enema the face became suffused, of a purple colour; convulsive twitchings came on; the stertor became again very great; the pulse slow, and not compressible; a leech was applied to the ankle, which again relieved the pressure on the brain, and altered the general appearance. At 5 P.M., the child has been a good deal reduced by the bleeding; it has a slow weak pulse, scarcely perceptible, sometimes it cannot be felt for several seconds, the only indication of breathing is a slight sob at intervals of some length; the eye is fixed; the conjunctiva turgid, and appears covered with a film, the lids remain open. The child appears sinking fast, and cannot be roused in any way. I was fearful of having recourse again to the turpentine injection, on the account of the effects it produced on the brain, yet I felt confident stimulants alone would save the child. It could not swallow; the extremities were cold and clammy; I determined to administer another enema of turpentine; the effects were instantaneous; the pulse rose; the breathing became gradually quicker and more natural; the extremities became a little warmer. As the effects went off the breathing became again slow and laboured; another enema was administered with a similar effect; eight were given before the symptoms became mitigated, in some of them as much as half an ounce of turpentine was injected, combined with tincture of assafœtida.

At 3 o'clock A.M. the little sufferer showed the first symptom of restoration, he began to move his lips as if sucking; he took two teaspoonfuls of castor oil sweetened. At 5 A.M. he had a stool, and has gradually recovered.

The nates and scrotum were very much excoriated, from the effects of the turpentine as it came away, and for some days the child suffered great pain in parting with its stools, from the inflamed state of the rectum. Strabismus of the left eye has continued up to this time, it is, however, each day less observable.

In the case just related, the stomach-pump could not, with safety, have been used, even if such practice could have been justifiable, considering the child must have taken the poison four hours before it was discovered, nor could an emetic be given, after the first, (which never acted), as the power of deglutition had ceased, motion soon lost its effect, and

the child could not be roused; stimulants were necessary, and yet by their use they appeared to increase the determination to the head; the turpentine had the effect of keeping up vitality until the effects of the opium on the system were worn out,—this occupied 15 hours.

TWIN CASES.

BY WILLIAM RYAN, ESQ., SURGEON,
Old Town, Rathdowney, Ireland.

Cessation of Labour for nearly four days after the expulsion of the first Child—Violent hour-glass contraction of the Uterus.

THE following cases may give rise to a question, whether, in the event of twins, the first child being expelled and labour then ceasing, a practitioner is authorised to turn, or had better leave to nature the completion of delivery. In the event of hæmorrhage taking place, no difference can arise as to the mode of treatment to be adopted, it being only in such as those instances now related, where no immediate danger seemed to exist, that we may inquire, if the irritation consequent upon turning may not bring on uterine action, and thus offer a greater probability of the child's life being saved. In the first case I am satisfied that the infant's existence was sacrificed by the officious interference of the nurse.

CASE I.—Anstice Molloy, aged 24, was seized with her first labour on Wednesday in July, 1832, and delivered on Thursday morning of one child; labour then ceased. On Friday night I visited this patient: she seemed slightly alarmed; pulse accelerated; parts of generation humid; os uteri closed upon the funis, but considerably dilatable; fœtus not discoverable on examination per vaginam, but its circulation at the placental implantation audible by the stethoscope. Ordered *v. s.* ℥ viij., an occasional enema, and some purgative medicine.

I left her, desiring, if any appearance of hæmorrhage should occur, they would send for me. Visited her on Saturday; labour still absent; pulse full and frequent; says she felt the child stir a short time before I arrived; fœtal circulation audible:—*v. s. ad* ℥ xii. *pulv. cathart.*

On Sunday night, at twelve o'clock, labour returned, and by the time I reached the house she was delivered of a still-born child (foot presentation). On inquiry into the circumstances of delivery, one of the attendants informed me that great violence was used in extracting the head, and she thought the infant was killed by it, in which assertion the patient joined, having, she said, felt it move a little before delivery.

The nurse said much blood had been lost;—ordered a little punch. The appearance of the woman was that of one suffering much; she laboured under the painful apprehension of immediate death; her features were sharpened; dim and sunken eye; pulse small, thready, and hardly perceptible at the wrist; lips pallid; retained placentæ; uterus ascending to midway between the umbilicus and ensiform cartilage, contracting a little by long continued pressure, but seeming, with a sort of elasticity, to rebound on its being discontinued; convulsive motion of lips and muscles of the face. On introducing the hand, intense hour-glass contraction of the uterus was evident, the entire placentæ being contained in the superior cavity; this being, with much difficulty, overcome, a large afterbirth was extracted, having the part belonging to the former child putrid; no subsequent fever.

CASE II.—A. B. confined on Tuesday morning; had a speedy delivery of one child. She was a Dispensary patient, and the attending gentleman having other calls, left her after the delivery of her first child, desiring, if called upon, that I would see her. Towards evening labour recommenced, and she was delivered of a still-born child. The nurse said the arm came at the same time with the head. I rather suspect it a variety of the first position.

RECENT EXPERIMENTAL RESEARCHES ON THE PROCESS OF RUMINATION OR CHEWING THE CUD.

BY MR. RENNIE.

HAVING been led, while composing the "Alphabet of Zoology," now in the press, to investigate minutely the process of digestion in different animals, I think it will be interesting to state here in brief the results of the recent investigation by M. Flourens, of the curious process of chewing the cud or rumination, which quite upsets all previous explanations. This process is always connected, excepting in individual instances, as in man and the kangaroo, with a complicated stomach, there being four, or at least four distinct chambers whose structure is very different.

The first, similar to the crop or craw of birds, is termed the paunch, and serves, by its heat and somewhat scanty moisture, to prepare the herbage for farther change. It is situated on the left side, and lined with a rough membrane studded with small flat projections. It is inferred to have a rotatory motion, from the round masses of hair, called bezoar stones, frequently found in it, arising from the union of hairs licked off, from time to time, by the animal when cleaning itself, and said, without proof, to be miraculously medicinal. In the chamois, the bezoar stones appear to consist of vegetable matter.

The second is termed the honeycomb bag, king's hood, or bonnet, is much smaller than the paunch, and is situated on the right of the lower end of the gullet, which opens in common into it and into the paunch. On the inside a number of shallow cells, like those of a honey-comb, are formed by projecting membrane, and the whole is lined with a rough scarf skin continuous with that of the gullet and paunch.

The third is the smallest of the four, and is named the many-plies, because the inner surface rises up into a great many folds, one above the other, amounting to about forty in the sheep, and about one hundred in the ox, and covered with a rough scarf skin. Some of these folds project farther than others, there being first two long ones on each side, and within these two shorter, and so on. The smallest of them, between the opening from the honeycomb bag, are puckered, so as to act as a valve between this third chamber and the fourth.

The fourth, which is exclusively the digestive stomach, according to Dr. Carus, is called the rennet bag, or red. Here, as in the simple stomachs of beasts of prey, we find no lining of scarf skin, which goes no farther than the many-plies; but a soft mucous membrane, which has the property of curdling milk, and that of the calf is used for this purpose in cheese-making.

It is important to observe, that, from the inlet of the paunch or first stomach, from the termination of the gullet, near the junction of the second and third stomachs, there runs to the third stomach a groove, which I shall call the cud-duct, with the first stomach on its left, and the second on its right. This cud-duct has thick prominent margins, which can be brought to meet so as to form a tube, and constitute a continuation of the gullet across the second into the third stomach. This duct was ascertained by M. Flourens to remain always open, even when the gullet inlet of the first stomach was closed.

The process of chewing the cud has recently been explained with great minuteness by M. Flourens, of Paris, who killed a number of sheep while in the act, for the purpose of investigating the facts, which have not been well understood by Aristotle, Perronet, Daubenton, Camper, Haller, Chabert, Foggia, and Bourgelat, and we may say the same of Grew, Monro, John Hunter, Blumenbach, and Carus.

When an ox or a sheep first swallows grass or other herbage, it passes chiefly into the paunch, but both partly, *immediately and successively*,

into the second stomach; but in the instance of liquids, such as broth, a portion always passes into each of the four stomachs *immediately*; the only opening into the third stomach being very strait, and capable, also, of being quite closed, so as to prevent the passage of anything coarse. The reason why liquids pass into the third and fourth stomachs is, that unless the gullet-inlet into the first stomach is expanded by a morsel of solid food, the cud-duct is more open to receive the liquid, and for the same reason, the cud-duct is prevented, by the expansion of the gullet-inlet, from admitting solid food.

In the process of common vomiting, the contents of the stomach are, by the action of the midribs and the muscles of the belly, ejected in a mass; but in chewing the cud, there is only a small rounded pellet brought up into the mouth, so that the process is in this very different from vomiting. Bourgelat denied the existence of the pellet, and Daubenton says it is formed by the second stomach. M. Flourens ascertained, beyond all question, that the pellet or cud, (which is only a different way of spelling *quid*,) is detached from the mass of aliment in the paunch, by the latter contracting and pressing the mass upwards towards the adjacent inlets of the paunch, the many-plies, and the cud-duct, which seize and detach from it a portion about an inch in diameter. The space, also, which these several adjacent inlets enclose, being round, and its walls in motion, the pellet is thereby rounded, and at length pushed up into the gullet, and returned to the mouth.

It is very remarkable, that, during the formation of the pellet, a very copious flow of spittle takes place from the mouth down the gullet, without which the pellet, which is rather dry at first, could not easily be brought up. The second stomach also, has, by its contraction, the opposite open cells brought into contact, so as to form a series of shut cells; an admirable provision for preventing the fluids, always more or less present here, from being brought up along with the pellet.

The pellet, when returned to the mouth is minutely chewed and reduced to a half fluid pulp, which, on being swallowed, is not solid enough to force open the always shut inlet of the paunch, and consequently enters the always open inlet of the cud-duct, and passes to the third stomach, from which it is forwarded to the fourth. The account of this process by Blumenbach, adopted by our British physiologists, is grossly erroneous.

In consequence of this complicated process, animals which chew the cud can digest more effectually than those which do not, such as the horse, it being common for the latter to pass corn quite undigested, a circumstance that rarely happens with horned cattle; and hence it is well known to graziers, that one-third less will be enough for an ox than for a horse or an ass. According, however, to the recent experiments of De Dombaslea and Biot, this will depend, in the case, at least, of roots, such as carrots or potatoes, upon boiling, so as to break the globular crust enveloping the nutrient matter, which the stomach cannot well effect. This matter, formerly termed *Amidine*, from its occurring in starch, has been termed by M. Biot, *Dextrine*, from its polarising the rays of light towards the right,—a singular property, by which the nutritive qualities of vegetables may be, M. Biot thinks, determined by optical experiments. If this be proved by farther research, it will furnish a triumphant answer to those who are disposed to ridicule minute and recondite inquiries, because they appear to be of no use. When the polarity of light was discovered, it certainly could never have been anticipated that it might become a test for the nutritive qualities of food.—*Field Naturalist's Magazine, June.*

THE

London Medical & Surgical Journal.

Saturday, June 8, 1833.

REFORM, AGITATION, HOUSE OF COMMONS.

MANY are the difficulties which attend the progress of the Reform of the College of Physicians, they disappoint the sanguine, dishearten the weak-minded, and baffle the labour and the industry of the determined opposers of the present wicked and destructive system. We have every reason to believe, and therefore we openly proclaim it, that the Fellows themselves have not stirred one step or attempted to alter one iota of their obnoxious by-laws, which are opposed to education, to science, and to the best interests of mankind. A weekly journal, which is supposed to be their organ, has stated that changes have been proposed, and will take place; the views with which this assertion was made, we will not inquire into; but it is fallacious, no such intention exists, and the profession must fight a battle, which must end in the overthrow of the present system; but this struggle will be attended with great disadvantages to the whole body, for every thing that tends to exhibit the followers of science as wranglers and combatants, whatever the cause may be, must lower them in the public view. It is a melancholy fact, which daily experience teaches us, that nothing is now gained but by AGITATION. Whatever may be the end desired, this is the only means to attain it. This sad truth has been so clearly, so fully demonstrated, that every individual feels that nothing can be effected without having recourse to this most unfortunate engine of public movement. No improvement, no amendment, no alteration, seems ever to emanate from the governing body, and those who are governed see this disposition, and have learned a lesson, which may yet be carried to a most frightful end, that nothing is to be obtained but by a determined and inflexible spirit of resistance. In most instances, bold, resolute, and daring persons are found to lead on the less active members of society, and fearless partisans step forward to their assistance; for a time these men are loaded with vituperation, and held up to public scorn and ridicule; but eventually the tide turns, and the very individuals who were taunted as demagogues, as visionary schemers, or as ambitious adventurers, "reach the utmost daring of their souls," become governors and administrators. Thus he who was once looked upon with suspicion and dread, becomes hailed, admired, and caressed, and may occupy the woolsack, or be placed upon the judgment seat of England, for even there agitators may find a resting place from their labours.

There is, however, in the medical profession, a delicacy of feeling, a praiseworthy refinement of sentiment, which prevents leaders coming forth to enforce the united feeling of the profession. There is an instinctive dread of notoriety, a fear lest an honest boldness should be construed

into daring effrontery, and the publicity to which it would lead be stamped with the stigma of a love of notoriety. Hence the men best calculated to forward the interests of science and of humanity, shrink back into silent quietude, fearing lest their very shadows should be seen in the sunshine of public day, or their voices be heard amid the busy hum of men. This, however, must not long be submitted to, for if men, high in character, well known and respected, will not aid the general cause, it must fall into other hands; and then it must be remembered, that those who take it up have only advanced because none others were to be found; but they deserve the respect and esteem of society who dare most for its welfare. If those who should be foremost in the day of battle are fearful of the responsibility, other men of less pretension, who supply their place, will carry off the reward that is to be obtained. The Licentiates of the Royal College of Physicians, with some exceptions, are tame, fearful, and submissive; to many of them an appeal is perfectly useless; they are willing to follow a leader, but even then they are jealous of the talent and of the boldness of their own associates, and though they may gladly avail themselves of the advantages that are obtained, they do not evince any readiness to secure them. Those who have been most active in the cause, have decided not to bring the subject this session before parliament; there are so many great and vital questions to be agitated at this moment, that the opportunity is not considered to have arrived; but during the interval that must elapse, care will be taken to watch every advantage, and to make such preparations as will ultimately secure victory. How much better, how infinitely to the honour of all would it be, if the President and Fellows would evince some willingness to consult the feelings of their brethren in science, if they would but exhibit some inclination to modify their obnoxious by-laws, and to treat the Licentiates with that respect which would reflect upon themselves, and be considered as worthy the character they represent. As gentlemen, they have no right to entertain selfish views; as men of honour, they are called on to yield up those privileges which their predecessors have usurped; and as men of science, they are bound to consider the way in which its followers ought to be rewarded. In vain, however, do we advise; we know that we must prepare for decisive conduct; and that, though the time is, from a thousand untoward circumstances, more distant than we had anticipated, yet the abolition of our slavery must and will take place. It is said, and with much justice, that the House of Commons has not yet undergone sufficient change for any of the great improvements which the age has required. There must yet be a greater transfusion of young blood into the old channels; the present men have too much of the old leaven; they have too much of the orator, and too little of the man of business. No greater proof can be

adduced of this, than the thousand-and-one speeches that are made by the old and hackneyed speakers upon an every-day question. Let a common-place topic be started, and a hundred sportsmen are in the field, eager to exhibit their hobby-horses: they gallop over the plain with tremendous activity, and exhibit a thousand pranks which might "make the angels weep;" but put a question of real business before them, and they are as tranquil as lambs—mute as mummies—and as useless as logs. Two or three individuals only are masters of the points to be discussed, and all the rest are led by them, and these leaders have been either ear-wigged, cajoled, flattered, or biassed in some way or other by those who possess the sycophancy and bowing propensities which carry so many important points in life.

These and many other important considerations lead us to believe that it will be "virtuousest, discreetest, wisest, best," to wait the coming on of time, with unwearied patience, with quiet perseverance, and inflexible determination not to relax in our honest endeavours to arrive at the great end of all our wishes. When the next opportunity occurs—and who on a view of the political horizon can tell how soon changes may arise?—it must be the care of medical men, who in general possess great influence in their respective neighbourhoods, to see that due and fit men are elected to represent the general interests in society. They must be watchful that industrious, hard-working, and right-thinking people be in future sent to speak in their name; and they must point out to them what is to be expected from them, when the questions on medical reform are to be broached; and every individual must exert himself to rescue the profession from the frightful state in which it is placed. The Apothecaries' Amendment Bill will meet with earlier attention from our legislators; but as they talk of "conflicting interests," it is very evident no good will be done: as long as monopolies are to be supported, and "particular interests" to be consulted, the general welfare must suffer. No partial views will satisfy us; a system founded upon good sense and justice should embrace the whole profession—it should be a security from the insolent intrusion of the quack—it should be a guarantee for the good education of the student,—and it should place its members upon a footing of respect and esteem in society.

CUTANEOUS DISEASES.

THERE is not a class of diseases in nosology so little known to the majority of medical practitioners as cutaneous affections, and we have long wished to render this branch familiar to our readers. The valuable works on the subject, both English and French, are, with the exception of Bateman's Synopsis and Plumbe's Treatise, beyond the reach of our brethren. We are now enabled to accomplish our wishes, and have obtained the co-operation of a gentleman, who is the best living author on diseases of the skin in this country, Mr. Plumbe, to analyse and condense the best French works, and to place their contents before our readers. We have from time to time received remonstrances against our inattention to foreign literature, but we pleaded our four pages of Dictionary as excuse. This we find unsatisfactory to most of our readers, who consider it not sufficiently interesting, and by no means a substitute for extracts from recent foreign periodicals; that it

would occupy ten years to complete it, and that the first sheets would, if preserved, be so soiled as to be unfit to be bound with the last printed. In accordance with the wishes of our best friends and supporters we have determined to discontinue it, and supply at least twice the quantity of foreign matter in our second sheet, and this from the latest periodicals of the Continent. At present it is impossible to do so with the Dictionary, as the condensation and translation of this occupies the whole time of two persons, which, if devoted to the simple translation of foreign journals, would be much better employed for the instruction of our readers. Let it not be supposed that the change we contemplate is the slightest proof of our want of success, or of the probability of this Journal being discontinued. The fact is, our circulation daily increases, and our anxious desire is to make our second sheet equal in value to our first. Then we boldly assert that no journal extant will communicate so much valuable knowledge on such reasonable terms, we need scarcely add, that our terms are a third less than those of our contemporaries, and here is a grand advantage which every subscriber must admit.

Having said thus much, it becomes a duty to our readers and ourselves, to state what we shall be able to offer them as a compensation.

The impression on our minds has ever been, that next to a faithful record of the steps by which medical science advances in our native land, which from the mere love of its origin and birth-place will make it of paramount interest to our countrymen, we should, and that unceasingly, watch and note its progress abroad. It is true, science is of no country, but there are now, thank heaven, few to which it is entirely an alien; few, therefore, where some new and important disclosure in the immense magazine of nature is not occasionally made for the benefit of mankind, and to become the honour and happiness of him who is fortunate enough to be its instrument. It is the duty of the journalist to notice such events; to give them all the consequence in his columns to which they are entitled, so that the careless reader even may be attracted, and the studious and scientific informed and gratified.

Feeling thus, and more, as regards our own science, we naturally look for the road which is to lead us most directly to our sphere of usefulness.

The subject of cutaneous diseases has been, of late years, comparatively little studied here, and we have long thought of the value of a thorough investigation of the results of the experience of French authors. In France, within a few years, have been produced no less than four or five distinct original works, besides periodical communications on the subject, while in the same period *we* can boast of only one. We purpose, therefore, the putting in possession of our readers, a full and complete analysis of those we allude to, and shall take the liberty of saying, that that analysis shall supersede the necessity of a full translation of any of them. In their original state, as imported, they will only be read by a few; but in the form in which we shall place them, we trust they will be by many.

There have hitherto, among these diseases, been considered some (others say many) as the opprobria of the medical science; and we all know something practically of their occasional obstinacy, intractability, and diversity of character. The splendid and extravagantly expensive works of Willan and Bateman, and from a desire to do justice we put the names in the order of their merits, have not as yet been studied by a thousandth part of our professional brethren at home, nor is it likely they ever will be; the illustrations which saddle the subject with so much difficulty, are objectionable on account of their expense,—are in many cases mere representations of the different stages of a disease, instead of a different disease altogether; and the line of

distinction between some of them is so badly drawn and ill-defined, as to make it impossible for the student to consult the work without confusing his ideas. The mode of classification, too, instead of making the subjects more clear, increases his difficulties; he finds, for instance, papulæ, vesiculæ, pustulæ, squamæ, as different orders, while there are many diseases which, at different periods of their course, exhibit the phenomena of all these in succession. The common itch is a familiar instance of this. The truth is, that, instead of upwards of half a hundred expensive engravings being *necessary* to convey accurate ideas of these diseases, one hundred of the pages of our little journal would, we firmly believe, if properly applied, be fully adequate to it. Besides, where is the necessity of an expensive engraving to show the character of measles, small pox, chicken pox, &c.? Every old woman and peasant knows them at first sight. We think that accuracy and simplicity in description would enable us better to understand the nature and character of any cutaneous disease than all the labours of the engraver, however talented in his art he may be.

Authors appear to have been fascinated by the display which their brethren of a sister science have enabled them to make, and have neglected sober communication of what they knew, as to true pathology, or successful treatment. Far be it from us to depreciate the value of the sweat of any man's brains, or of any man's brow, but we do feel that a large hiatus remains to be filled up as regards the subject of which we are speaking.

Any addition, therefore, to our stock of knowledge, we cannot but consider of the greatest value, and we shall confidently pledge ourselves, that all the facts which bear that undoubted character shall be carefully selected; all which is questionable, impartially investigated, and all which is superfluous, and that our readers are aware forms no small portion of the works of our French brethren, carefully omitted. In short, we propose to place in our columns, from time to time, the opinions and practice of the possessors of a field of observations, as regards cutaneous diseases, unknown in this country, or any other part of the world.

When we name the productions of Alibert, Rayer, and Biet, as constituting part of the mass which will be analysed, and published at the periods and in the manner we are about to mention, we shall perhaps excite surprise, that with our other duties we can spare the time necessary for such an undertaking. Perhaps, were we to essay it, we should fail in satisfying our readers or ourselves.

In conformity, therefore, with the desire we have expressed, and have been always actuated by, that this Journal should lose nothing to make it valuable which our means could command, we have intrusted the task to a gentleman, whose ability to do it justice will be admitted, we think, by the profession at large, as readily as by ourselves. Of our own confidence on this point we have produced sufficient proof in the pledge we have given. We speak of Mr. Plumbe, the author, some years since, of "An Essay on Porrigo," comprising that part of the subject denominated "*les Teignes,*" and subsequently, of "A Practical Treatise on Diseases of the Skin;" we believe, also, the only living author on these subjects England can boast of. We feel assured, that in his hands this difficult and important undertaking will be well executed, and in a spirit according with our own.

This analytical translation, we presume, will not be tainted by the language of severe criticism; the space which would be occupied by that will, we trust, be far better occupied; and we should be sorry to see anything in our columns likely to diminish the good understanding now subsisting among all classes of the members of our science on each side the Channel.

The language of the critic, in a science like ours, is often greatly misapplied; and the author who does know a little of his subject, is but too frequently discouraged from publishing what he may learn more, by the hardihood of the critic, who never has known, and never will attempt to learn, anything about it.

THE ENGLISH UNIVERSITIES *versus* THE SCOTCH.

THE bill, which is to permit those who have obtained degrees in the Scottish Universities to practise as apothecaries, gives no such privilege to those who graduate either at Oxford or Cambridge, an omission which we consider of some importance. It is true, that those who take the degree of Doctor in Medicine at the latter Universities, seldom receive that education which would enable them, without pursuing their studies elsewhere, to practise the medical art; still, however, if they are supposed to be capable of prescribing as physicians, they ought to be fit for compounding medicines, and making themselves generally useful. We know many instances where Fellows of the College of Physicians would be too happy to avail themselves of the liberty of becoming apothecaries, but "the pride by which the angels fell," steps in between their wish and their poverty. Surely the English Universities ought to claim the same privilege as their sisters.

THE APOTHECARIES' ACT.

A BILL *to amend an Act of the Fifty-fifth Year of His Majesty King George the Third, for better regulating the Practice of Apothecaries throughout England and Wales*.*

Whereas an act was passed in the fifty-fifth year of the reign of his late Majesty King George the Third, intituled, "An Act for better regulating the Practice of Apothecaries throughout England and Wales:"

And whereas by the said recited Act it is amongst other things enacted, That from and after the first day of August, one thousand eight hundred and fifteen, it shall not be lawful for any person (except a person already in practice) to practise as an apothecary in any part of England or Wales, unless he shall have been examined by the Court of Examiners appointed by the Master Wardens and Society of the Art and Mystery of Apothecaries of the City of London, or the major part of them, and have received a certificate of his being duly qualified to practise as such from the said Court of Examiners, or the major part of them, as aforesaid:

And whereas by the said recited Act it is further provided and enacted, That no person shall be admitted to any such examination for a certificate to practise as an apothecary, unless he shall have served an apprenticeship of not less than five years to an apothecary:

And whereas by the said recited Act it is also further enacted, That if any person (except a person then actually practising) shall, after the first day of August, one thousand eight hundred and fifteen, act or practise as an apothecary in any part of England or Wales without having obtained such certificate as aforesaid, every person so offending shall for every such offence forfeit and pay the sum of twenty pounds:

And whereas by the said recited Act it is also further enacted, That no apothecary shall be allowed to recover any charges claimed by him, in any court of law, unless such apothecary shall prove on the trial that he was in practice as an apothecary prior to or on the said first day of August, one thousand eight hundred and fifteen, or that he has obtained a certificate to practise as an apothecary from the said Master Wardens and Society of Apothecaries aforesaid:

* The words printed in *Italics* are proposed to be inserted in the Committee.

And whereas another Act was passed in the sixth year of his late Majesty King George the Fourth, intituled, "An Act to amend and explain an Act of the Fifty-fifth year of his late Majesty, for better regulating the Practice of Apothecaries throughout England and Wales," by which some of the provisions of the said first recited Act were altered and modified; but such last-mentioned Act had endurance only for a limited time, and the same expired on the first day of August, in the year one thousand eight hundred and twenty-six:

And whereas by the present regulations of the Universities of Edinburgh, Glasgow, and Aberdeen, and of the Royal College of Surgeons of Edinburgh, and of the Faculty of Physicians and Surgeons of Glasgow, no person can be received on trial for the degree or diploma conferred by these bodies, who has not passed through an extensive course of professional education and study, fully qualifying him to act as an apothecary or general medical practitioner; and a large proportion of the medicines actually prepared and dispensed in Scotland, and in the different colonies of the empire, is and has long been prepared and dispensed by persons holding such degrees or diplomas as aforesaid, without any other licence or authority; and it is therefore reasonable that every such person should be placed upon the same footing in respect to the right to practise as an apothecary or general medical practitioner in England or Wales, as any person examined and licensed by the said Company of Apothecaries is placed:

Be it therefore enacted, by the King's most Excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present parliament assembled, and by the authority of the same, That every person who has obtained or shall hereafter obtain the degree of doctor of medicine from one of the aforesaid universities, or a diploma from the Royal College of Surgeons of Edinburgh, or from the Faculty of Physicians and Surgeons of Glasgow, shall be entitled to practise as an apothecary or general medical practitioner, and to dispense medicines to his patients in any part of England and Wales, without having undergone any such examination, or received any such certificate as by the said recited Act of the fifty-fifth year of the reign of his said late Majesty King George the Third is directed, and without being liable to any penalty or disability whatsoever imposed by the said Act on any person who, not having been in practice as an apothecary prior to or on the said first day of August, one thousand eight hundred and fifteen, shall, without having been examined and received a certificate in the manner directed by the said Act, have commenced practice, or have practised as an apothecary in any part of England and Wales.

And be it enacted, That no such person shall be obliged, in order to recover in a court of law any charges claimed by him as an apothecary, to prove that he was an apothecary prior to or on the said first day of August, one thousand eight hundred and fifteen, nor that he had obtained a certificate to practise as an apothecary from the said Master Wardens and Society of Apothecaries, but shall only be obliged to prove that he holds a degree of doctor of medicine from one of the aforesaid Universities of Scotland, or a diploma from the Royal College of Surgeons of Edinburgh, or from the Faculty of Physicians and Surgeons of Glasgow, dated prior to the time at which such charges so claimed shall be alleged to have been incurred.

Provided always, and be it enacted, That no degree, diploma, or licence, shall hereafter be conferred by any of the aforesaid universities or medical incorporations, except under the condition, that previously to any candidate for such degree or diploma being admitted to examination, he

shall produce evidence of having served an apprenticeship to a regularly licensed medical practitioner, keeping a laboratory for the dispensing of medicines, or of having attended for at least months at the laboratory of a surgeon or apothecary, or of an established chemist and druggist, or of a public hospital or dispensary, and of having during that time been engaged in compounding and dispensing medicines.

And be it enacted and declared, That the production of a diploma under the seal of any one of the said Universities of Scotland, or of the Royal College of Surgeons of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow, shall in all courts of law and equity be and be held to be sufficient evidence that the person named in such diploma is entitled to the powers and privileges by this Act granted to any person to whom such diploma has been given, without being obliged to give further evidence in regard to the same.

And be it enacted, That so much of the said first recited Act as prohibits the Society of Apothecaries from admitting any person to examination for a certificate to practise as an apothecary, unless he shall have served an apprenticeship of not less than five years to an apothecary, shall be and the same is hereby repealed: Provided always, that it shall and may be lawful for the said Society of Apothecaries to make such by-laws and regulations respecting the serving of apprenticeships by candidates for their licences as shall appear to the said Society of Apothecaries best calculated to promote the professional instruction of such candidates.

And be it further enacted, That from and after the all and every person and persons, who shall have received a licence or licences, certificate or certificates, of his or their fitness to practise pharmacy, or the art of an apothecary, or of his or their fitness to practise surgery, from any of the societies or incorporations within Great Britain or Ireland lawfully entitled to grant such licences or certificates, shall and may practise as an apothecary or as a surgeon respectively, in and throughout that part of the United Kingdom of Great Britain and Ireland called Scotland; any thing in any charter, gift, or patent now or heretofore in force in that part of the United Kingdom to the contrary in anywise notwithstanding.

And whereas the surgeons and assistant-surgeons of the Royal Navy, the surgeons, assistant-surgeons, and apothecaries of his Majesty's land forces, and the surgeons and assistant surgeons in the service of the East India Company, do, previously to their admission into those respective services, undergo strict and perfect examination by experienced medical officers, fully competent thereto, as to their sufficient knowledge and capacity in all the branches of the respective sciences and professions of surgery and pharmacy, and it is therefore unnecessary and improper that such prohibition, penalties, and disabilities, which were only intended to protect his Majesty's subjects against the practice of ignorant and unskilful persons, should apply to them; Be it therefore enacted, That from and after the *passing of this Act*, it shall be lawful for any person who has or shall have held any commission or warrant as a surgeon or assistant-surgeon in the royal navy, or as surgeon, assistant-surgeon, or apothecary, in any of his Majesty's land forces, or as surgeon or assistant-surgeon in the service of the East India Company, to practise in any part of England or Wales as an apothecary, or an assistant to an apothecary to compound and dispense medicines, without any certificate from the Court of Examiners of the said Society of Apothecaries, or any previous examination by the said court, and without being liable to any penalty or disability whatever by reason of such practice; the said recited Act, or any other statute, law or usage to the contrary thereof notwithstanding.

PROSPECTUS OF DR. GRANVILLE'S GRAPHIC ILLUSTRATIONS OF ABORTION.

Dr. Granville has submitted to the members of the profession a prospectus of a work, which will very shortly appear, that promises to be of the greatest importance and value, and will exhibit much industry and zeal; it purports to be "Graphic Illustrations of Abortion and the Diseases of Menstruation. And will consist of Twelve Drawings, engraved on Stone, and coloured by Mr. J. Perry, and also two Copper-plates from the Philosophical Transactions, coloured by the same artist. The whole representing Forty-five Specimens of Aborted Ova and Adventitious Productions of the Uterus, with Preliminary Observations, Explanations of the Figures, and Remarks, Anatomical and Physiological."

He offers to his professional friends and acquaintances, as well as to all those medical brethren who take an interest in the progressive advancement of the sciences they cultivate, a series of beautifully executed Drawings of anatomical preparations, intended to explain and illustrate the important subjects of "Abortion" and "the Diseases incidental to Menstruation;" subjects in which all classes of the medical profession, whether specially devoted or not to obstetrical practice, are equally interested. The drawings speak for themselves. The artist, under his immediate and constant superintendence, and with the anatomical preparations in every case before him, explained and demonstrated to him, has, in the course of six years, been able to produce twelve plates, containing upwards of forty anatomical figures, lithographed and coloured by himself, which reflect no small honour on the arts of this country, and are highly creditable to his abilities.

Dr. Granville has selected such specimens only as he considered likely to illustrate some of the most interesting points of the physiology of human generation, and which might assist in unravelling the various practical difficulties which beset that mysterious question.

Reviews.

New Theory of the Influence of Variety in Diet in Health and Disease, accounting for many Obscure Affections hitherto but little understood, and tending to elucidate the Nature and requisite Treatment of the existing Epidemic Cholera. By Charles Cameron, Surgeon, R. N. 8vo. pp. 104. London: S. Highley, 32, Fleet-street. 1833.

The design of Mr. Cameron is to prove that a milk and vegetable diet is most conducive to health. He adduces many arguments in proof of his position. His remarks are sensible and scientific. He comments on the normal and abnormal conditions of the blood, and notices the various opinions of writers on the subject. His work is well worthy of attentive perusal.

The author has had great experience as a naval surgeon, and claims the merit of being the first who succeeded in curing scurvy with nitrate of potass, and refers to his Reports to Sir William Burnett. The following extract shows the originality of Dr. Stevens's discoveries:—

"In 1828, I went out to New South Wales as surgeon and superintendent of the 'Fergusson,' a convictship; and, on my return, made the usual report to the proper department, particularly noticing a variety of scorbutic disease which occurred among the prisoners on the voyage outwards, and in which I used a considerable quantity of gunpowder for the production of nitre, to be administered in the cure of the disease. Dr. Weir, the late medical commissioner, wrote to me, a short time afterwards, requesting that I would draw out a copy of my former report as concisely as possible, and that he would cause it to be printed by the Office Press, for distribution among the surgeons

of the navy. This was done accordingly; and although I was satisfied that my letter was sufficiently explanatory for the perusal of those gentlemen for whom it was intended, as being generally conversant with the nature of scorbutic complaints; yet I was sensible that it was not arranged so as to convey much information to the public, and was not aware (partly perhaps from being out of England) that it was reprinted in the Medico-Chirurgical Review for March, 1830, until I knew it through the medium of Dr. Stevens's publication. Here it seems Dr. Stevens met with it; and it is clear to me from various circumstances, that he has done me the honour to study it with some attention. By a reference to this document it will be seen, that it was not the disease usually known as scurvy, which was the subject under consideration, but diseases simulating, or rather supervening a scorbutic taint of the body. I compared this condition of the system to the diseases which occurred in the Penitentiary in 1823-4; and called it the 'scorbutic diathesis,' because the term was the most explanatory I could find where brevity was necessary; and because it was that condition, which, if the cause be continued, leads to the symptoms better known as scorbutic. Having attempted to give some idea of the nature of this affection, in which I recommended the use of nitre, and having also stated that it was 'on this principle I would explain the occasional fatality of endemic fevers, dysentery, and other diseases called malignant and putrid, which sometimes rage amongst the poor, and in gaols, hospitals, ships, camps, &c.' I think no other inference could be drawn, by any individual who perused my report, but that I recommended it in those diseases also, and consequently prior to Dr. Stevens.

"I have several reasons to believe that the doctor's opinions have been greatly modified since he perused my paper, although he has not acknowledged that this was the case; but, be this as it may, it would be very supine on my part to allow any man quietly to appropriate to himself the most important part of it; particularly as we may observe, at least as far as I can see, that the idea did not appear in any part of his proceedings, till after he had seen a copy of that report. Nor did we hear of the non-purgative neutral salts till then. This may throw some light on the various misunderstandings which occurred between himself and several gentlemen, on the question whether he meant soda, alkaline, or neutral salts.

"The first mention I find Dr. S. make of nitre, although I watched his proceedings very closely, was in a case of fever in St. Thomas's Hospital, under the care of Dr. Elliotson. The case is mentioned in the Lancet of the 18th February last. Dr. Elliotson had been using the saline treatment as recommended by Dr. Stevens personally. Dr. Elliotson, it would seem, had been giving as much as eight scruples of carbonate of soda a day; and he says that 'Dr. Stevens, in a conversation I had with him relative to the last case, said, that I should have found it still better, if I had given "nitrate of potash" in conjunction with the soda, and let the patient take a little of the solution of both, as often as she pleased.' The case, in which it was thus used, I believe eventually proved fatal. I do not know whether it was one of those cases, in which I would recommend the use of nitre, but I said at the time it was under treatment, that it would be of little use, as the dose, ten grains, was too small. I admit, however, that in one point of view, if he means to take advantage of it, the claims of Dr. Stevens take precedence of mine. Sir John Pringle (On Diseases of the Army, page 401,) informs us that '*alkaline salts*' were introduced to the notice of the public in putrid diseases, *by Mrs. Stevens*, so that he will perhaps claim the discovery by right of descent."

Observations on the Illusions of the Insane, and on the Medico-Legal Question of their Confinement. Translated from the French of M. Esquirol, Physician-in-Chief to the Royal Asylum of Charenton. By WILLIAM LIDDELL, Member of the Royal College of Surgeons, &c. London, 1833. 8vo. pp. 89. Renshaw and Rush.

THIS little work is replete with the most singular illustrations of the hallucinations of the insane, and deserves a place in every library in the kingdom. It will be read with interest by all classes of society. It will be a source of amazement to the general reader. M. Esquirol is decidedly the first physician in Europe in the treatment of the insane; any thing from his pen will be favourably received by the medical profession. There is a philanthropy about him we admire. He forcibly observes that the law of France, and he might have added of England, has in view the maintenance of public order, and the preservation of the fortune of the insane, and not the restoration of the afflicted to liberty. The following extracts afford curious illustrations of insanity :—

"*Third Observation.*—Mlle. —— at eighteen years of age, enjoyed good health, although still irregular. Soon after the events of 1815 she experienced a fixed pain on the top of her head, and very soon persuaded herself that she had a worm in her cranium, which was devouring her brain. The sight of copper almost made her faint, and her friends were obliged to remove from her apartments every thing that was covered with gilding. She consented to walk with the greatest reluctance, because the dust raised by the pedestrians appeared to her filled with oxide of copper. Nothing could persuade her to touch a gilt candlestick, nor the cock of a fountain. After many months of unsuccessful treatment I was called to her. She was thin, her skin was discoloured, and she was very irritable. She sometimes refused to eat, slept badly, and had constipation of the bowels; she spoke at one time of her repugnances with liveliness, and at another time in tears. I endeavoured to gain her confidence by flattering her fancies, and by assuring her that I would destroy the worm, which was the cause of all her complaints, if she had the courage to let me perform an operation, which would not be very painful to her. I so well succeeded in persuading her, that after one of my visits she made an incision herself, with a penknife, on her head. As soon as she saw the blood run she fainted. I was sent for immediately, and on my arrival I found the patient, who had recovered her recollection, very desirous that I should perform the operation of which I had so long spoken. The young lady's courage kept up that of her friends who consented to the employment of the means which I had proposed. M. Bigot, the medical attendant of the family, made a crucial incision, of more than two inches in length, over the part affected, and allowed the blood to flow. We showed the patient a small piece of fibrin, which we assured her was the insect that had been the cause of her suffering so long. An issue was made in the middle of the incision and kept there for three months, when the fixed pain, illusions, and fears of verdigrise, all disappeared together.

"*Fourth Observation.*—Some years afterwards, whilst I was giving my clinical lectures on mental diseases, at the Salpétrière, a similar case presented itself to my notice, in a countrywoman who had been admitted into that division of the hospital devoted to the insane. This woman complained of fixed and very sharp pains on the top of her head, which she attributed to an animal in it: she became insane in consequence, with the desire to commit suicide. I made a crucial incision over the part in pain, and showed her a piece of earth-worm, assuring her that it was the cause of her illness After the operation the woman showed her companions the animal that had been

given to her, expressing her joy at being cured. But thirty-six hours afterwards they laughed at her, telling her that I made game of her credulity; she immediately tore out the issue which had been established, and the pains and illusions returned.

"*Ninth Observation.*—A woman, about fifty-seven years of age, of a strong constitution and sanguineous temperament, had been porteress at the nunnery of Nôtre-Dame, and was very devout. The events of the revolution concurred with the cessation of the menses to deprive her of reason, and she was taken to the Salpétrière, where she lived a great number of years. She was of a small size, had a thick and short neck, and large head, and her countenance had something mysterious about it. Habitually calm she worked at her needle, and they called her in the hospital the 'Mother of the church,' because she spoke incessantly on religious subjects. She fancied she had in her belly all the personages of the New Testament, and sometimes also those of the Bible. She used frequently to say to me, 'I can bear it no longer! when will there be peace in the church?' If her pains became more acute she would add, with imperturbable coolness, 'They are crucifying Jesus Christ to-day; I hear the blows of the hammer as they drive in the nails.' She imagined also that the popes held council in her belly, and nothing could dissipate these ludicrous illusions. On opening the body I found all the intestines united by chronic peritonitis into one mass, and adhering very closely together by their peritoneal covering.

"*Tenth Observation.*—I found the same alteration, although the adherence was less strong and less general, in a demonomaniac, who fancied she had in her belly a great many devils, who were tearing her in pieces, and incessantly persuading her to destroy herself. She was extremely emaciated; her skin had become very brown as if tanned, and had lost all sensibility. I have often pricked her skin with large pins without producing the least pain. This insensibility had persuaded her that her skin was changed into that of the devil."

A New Dictionary of Medical Science and Literature, containing a Concise Account of the various Subjects and Terms, with the Synonymes in Different Languages, and Formulæ for various Officinal and Empirical Preparations. By R. Dunglisson, M.D. Boston, published by Charles Bowen. 1833. 2 vols.

This is an excellent compilation, and one that cannot fail to be very much referred to. It is the best medical lexicon in the English language that has yet appeared. When the difficulties that are to be surmounted in a work of this nature are considered, who can be surprised at the epigram,

Si quelqu'un a commis quelque crime odieux,
S'il a tué son pere, ou blasphémé les Dieux,
Qu'il fasse un Lexicon; s'il est supplice au monde
Qui le punisse mieux, je veux que l'on me tonde.

We do not know any volume which contains so much information in a small compass. The bibliographical notices, though so short, are very important and useful; and altogether we can recommend to every medical man to have this work by him, as the cheapest and best dictionary of reference he can have.

A Practice of Physic, comprising most of the Diseases not treated of in "Diseases of Females," and "Diseases of Children." By W. P. Dewees, M.D., Adjunct Prof. of Midwifery in the University of Pennsylvania, &c. &c. 2nd Edit. Pp. 819. Philadelphia: Carey, Lea and Blanchard; London, Kenneth. 1833.

In 1829 we felt much pleasure in expressing a most favourable opinion of the first edition of this work, and predicted its success. Time has confirmed the validity of our decision.

Much to the credit of our contemporaries, not one of them condescended to notice this valuable production, though we know they had received it. This, of course, arose from pure liberality. The present edition is very much improved, and embraces all the practice of medicine except what relates to women and children; on which the learned and experienced author has already descanted in works favourably known and much esteemed by the profession in all countries. In our opinion this system of physic is, so far as it goes, one of the very best that can be referred to or consulted; and we therefore recommend it to our readers. Every page of it evinces research, observation, and judgment; and no one can peruse it without being impressed with the conviction that its author is a physician of great experience and sound judgment. It embraces European views on the nature and treatment of diseases, such as are omitted in many of our modern systems of medicine. We are proud to state, that an obstetrician is its author —a fact that stultifies the notion of the redoubted Fellows of our College of Physicians.

PRIZES TO THE MEDICAL STUDENTS AT GUY'S HOSPITAL.

At the commencement of the last medical season a prize was offered by the committee of the Pupils' Physical Society to the writer of the best essay on rheumatism. Three papers were sent in, and the successful candidate was Mr. J. Lever of Woolwich. The surgical examination was conducted by Mr. Key, assisted by Mr. B. Cooper. The subjects of examination were femoral hernia, aneurism, and the dislocations of the hip-joint. The examination lasted two hours, when the prize was also awarded to Mr. Lever, he being the only pupil who offered himself.

Two days afterwards the anatomical examination took place; Mr. B. Cooper presided, assisted by the demonstrators. This examination lasted three hours; it comprised a series of anatomical questions, and the candidates were also required to cut down and tie different arteries upon the dead subject. The prize was shared by Mr. J. Lever and Mr. Pearce of Bradford.

BOOKS.

Principles and Practice of Obstetric Medicine, in a Series of Systematic Dissertations on Midwifery, and on the Diseases of Women and Children; Illustrated by numerous plates. By David D. Davis, M.D., M.R.S.L., Professor of Midwifery in the University, &c. &c. Quarto, part XX. London: Taylor.

This valuable production is now half finished, and there can be no doubt of its completion. We strongly advise those who wish to possess the best systematic work of reference on Obstetrics to do so, as they may be disappointed when it is finished, as the whole impression is, we understand, nearly disposed of already.

Obstetric Tables, comprising coloured Delineations on a peculiar Plan; intended to illustrate elementary and other works on the Practice of Midwifery, elucidating particularly the Use of the Forceps, and other practical points in Obstetric Science. By G. Spratt, Surgeon-Accoucheur, Editor of the Flora Medica, &c. Quarto. John Churchill.

This is an exceedingly valuable work to all engaged in teaching or practising Midwifery. The plates are so constructed that each illustrates different points. The lecturer, the student, and the practitioner will find this an instructive and valuable work.

A Practice of Physic, comprising most of the Diseases not treated of in "Diseases of Females," and "Diseases of Children." By William P. Dewees, M.D., Adjunct Professor of Midwifery in the University of Pensylvania, &c., &c. Second Edition, Octavo, pp. 819. Philadelphia: Carey, Lea, and Blanchard. London: Kenneth.

CORRESPONDENTS.

The Reminiscences of an Army Medical Officer are under consideration. The other communication cannot appear.

Amount of Subscriptions already received in aid of Dr. Ryan . . £227 17 6

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 72. SATURDAY, JUNE 15, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XL., DELIVERED JAN. 17, 1833.

Gentlemen,—I will begin this lecture with a few observations on the complication of fractures with hæmorrhage from a large artery. A few evenings ago, I showed you a specimen of compound fracture of the leg, where amputation had been performed on account of hæmorrhage from either the anterior or posterior tibial artery. Pressure had been tried for the stoppage of the bleeding, but without success, as it was followed by mortification, and then amputation was practised, as the only chance, and that a bad one, of saving the patient's life. A limb that has sustained a compound fracture, attended with hæmorrhage from a considerable artery, is generally not in a condition to bear pressure; and when the situation of the anterior and posterior tibial arteries is considered, one would not expect that pressure could have much effect in stopping hæmorrhage from them. As far as I can judge, it would be more likely to promote the occurrence of gangrene than to have a beneficial effect. Experience proves, that fractured legs with hæmorrhage from one of the arteries already specified, generally end unfavourably, the surgeon being induced either to amputate in the first instance or at a later period, in consequence of mortification. The most common plan, perhaps, is to amputate at once: I may state, that it is a practice that has prevailed both in this country and in France.

Now, this is a subject deserving of some consideration; and I think it of importance, that you should make up your mind how you would act, were you called to a fracture complicated in the manner referred to. If a compound fracture of the leg, attended with hæmorrhage from the anterior or posterior tibial artery, were under my care (and I may here observe, that the complication in question is most commonly met with in the leg), I should, if amputation were not called for on some other account, neither amputate at once nor employ pressure, nor cut down to the artery, in order to tie it; for the limb will sometimes admit of being saved, provided the hæmorrhage can be controlled without the means resorted to for this purpose being productive of too much additional irritation. Now, Baron Dupuytren has satisfactorily proved, that when the bleeding is such as cannot be checked by cold applications, you will have greater success in the management of this complication, if you abstain from pressure, and from the performance of any operation directly on the injured part of the limb. He had a woman under his care a short time ago, about fifty-five years of age, who had both bones of the leg fractured, with laceration of, and hæmorrhage from, the posterior tibial artery; he was aware of the ill success which usually attends pressure and the tying the bleeding artery itself, and he therefore tried the experiment of taking up the femoral artery, in a part of the limb undisturbed by the accident. The operation stopped the hæmorrhage, and the case ended well. Dupuytren has since had a case, in which a musket-ball passed through the spongy head of the tibia and wounded the popliteal artery. In this instance he also tied the femoral artery at a distance from the injury, and the result was a most favourable cure, the hæmorrhage having ceased immediately, and the fracture united without any severe degree of inflammation in the soft parts. Delpech met with several cases of this kind, which he treated in a similar manner and with equal success. These facts, I think, leave no doubt of the merits and efficiency of this practice, which I therefore recommend to your particular attention. When cold applications will not control the hæmorrhage, and it proceeds from the interior or posterior tibial artery, the limb

ought not to be amputated at once, unless such operation be demanded for other reasons than the bleeding; neither should you make much pressure, nor cut down to the wounded artery near the fracture; but prefer the method of securing the femoral artery itself. It is true this is deviating from a good and established maxim in surgery, which directs us to tie a partially divided artery both above and below the wound in it; but, in a case of compound fracture, the irritation of the operation, acting directly on the injured part of the limb, would leave the patient a poor chance of preserving his limb, or even his life. But, gentlemen, to quit all these arguments, I may appeal to experience, which has satisfactorily proved, that tying the femoral artery is sufficient to prevent the bleeding, and that it is more likely to answer than other expedients, because it inflicts no additional irritation upon the broken part of the limb. In a former lecture I explained to you, that I once took up the femoral artery in a case where a dangerous hæmorrhage arose, in consequence of the popliteal artery having given way about a week after a gun-shot wound in the ham; and, in that example, the plan was found to be effectual. I believe, gentlemen, that in surgery, as in other matters, there are few rules, valuable though they may be, which do not admit of exceptions; and here I have brought before your notice two instances, which form exceptions to the excellent common rule of tying a wounded artery both above and below the bleeding part of it.

Gentlemen, I next enter into the consideration of *particular fractures;* and will first say a few words on *fractures of the bones of the face.*

The *ossa nasi* are less frequently broken than their superficial and exposed situation might lead you to suppose; in fact, they can be broken only by direct violence, as by a blow or fall on the face, and, unlike many other bones, they cannot be fractured by violence applied to a part more or less distant from that where the bones actually give way. Now, what are the symptoms of a fracture of the ossa nasi? Of course you will generally observe a considerable degree of contusion, because the fracture can only be produced by direct external violence, which will bruise the soft parts, as well as break the subjacent bones. There will also be more or less hæmorrhage from the nose; and, on examining the parts with your finger, you will feel the fragments move, and at the same time you will perceive a crepitus. Sometimes the fragments are driven inwards or depressed, but, generally, such depression of the bones is soon concealed by the swelling of the soft parts. However, by examining the part attentively, you will be able to ascertain the depression. Sometimes the fragments are not at all displaced; and, in particular instances, the fracture extends beyond the nasal bones, so as to pass through the ascending process of the superior maxillary bone, and across the nasal duct. It is curious that I should have been consulted about such a case this very afternoon: not only were the ossa nasi broken, but the fracture passed through the ascending process of the superior maxillary bone and across the nasal duct. The accident proved fatal, and a coroner's inquest is at this moment sitting on the case, which occurred in consequence of one person, in a quarrel, throwing a horse-brush at another with great violence; but, I think, there must have been some injury done also to the brain, as the man would not have died from a mere fracture of the bones specified. I had hopes of being able to bring the parts here to show you, but as the inquest had not assembled when I saw the surgeon this afternoon, he was afraid to let me have them. In certain instances, the cribriform plate of the ethmoid bone may be fractured; you know that the ossa nasi are partly supported by the perpendicular plate of the ethmoid bone, and the violence, which fractures them, may be communicated, through the medium of the perpendicular plate, to the cribriform plate, which may thus be forced inwards. In this event, there would be symptoms of injury of the brain, and the accident would require to be treated according to principles, which will be explained when we come to the consideration of injuries of the head.

A fracture of the ossa nasi, unattended with symptoms of injury of the brain, or with any displacement of the bones, as is most frequently the case, should be treated entirely on the antiphlogistic plan; a cold evaporating lotion should be applied to the part; and if the degree of contusion be considerable, the patient should be bled, leeches applied, and purgative medicines exhibited. If there should be depression of the fragments, it would be right to introduce a director, or a pair of dressing forceps, up the nostril, and to endeavour, with the assistance of one of these instruments, and of the fingers placed externally, to put the fragments in the best position which circumstances will allow.

After the reduction, there is no chance of a return of displacement, because there are no muscles attached to the ossa nasi capable of having this effect.

The *upper jaw bone* is seldom broken, although I have informed you, that such a case came within my cognizance this very day; but the accident is rare, except as an effect of gun-shot wounds. The same may be said of the *os malæ.* However, the upper jaw and cheek bone may be broken by direct violence, as by the kick of a horse, the blow of a hammer, or the passage of a bullet. The treatment would then consist principally of antiphlogistic means, care being taken to remove all loose superficial splinters of bone. In such cases, there is rarely any displacement of the main portions of bone. Instances have occurred, however, in which the whole of the os malæ has been broken off from the zygoma,

and forced upwards towards the orbit, so that the eye was pressed out of its place. But, gentlemen, I need not dwell upon fractures of the upper jaw and cheek bones, for they are rare, and when met with, treated on the general principles of keeping down inflammation, removing splinters, &c.

The *lower jaw bone* may be fractured, either in its body, its ramus, the neck of the condyle, or the coronoid process; and sometimes a part of the alveolary process is broken off with the teeth inserted in it. These fractures may be either *simple, compound, complicated,* or *comminuted;* they differ also in the direction of the fissure, they may be *perpendicular, oblique,* or *transverse,* or, as they are sometimes termed, *longitudinal,* inasmuch as they occur in the direction of the greatest length of the bone: these last are chiefly fractures of the alveolar process. When a fracture occurs in the body of the bone, it is rarely in the exact situation of the symphisis, but generally on one side of it, between it and the insertion of the masseter muscle. From this latter point, backwards to the angle, the bone is covered, both internally and externally, by muscles, and therefore is less frequently broken. Nor, when a fracture takes place in this situation, can there be much displacement; generally none at all happens. The lower jaw may be broken in two places at once,—there may be a *double fracture;* and, as I have already stated, the fracture may be comminuted,—the bone being broken in several pieces. Here is a good specimen of a comminuted fracture of the lower jaw; and what deserves notice, the fracture is in an unusual situation, inasmuch as it involves the symphysis of the bone. In another specimen, which I now hand to you for inspection, the bone has been broken and united again; but the fracture is in two or three places, and one of the fissures is in the longitudinal direction. Gentlemen, I have mentioned, that you will frequently have a fragment of the alveolar process detached with the teeth in it. When the fracture takes place near the chin, whether on one side or on both sides of the symphysis, the fragment comprehending the symphysis will be drawn downwards and backwards towards the os hyoides. On the other hand, when the fracture is between the insertion of the masseter muscle and the root of the coronoid process, there will not be much displacement; for the pterygoid muscles, the temporal, and the masseter antagonise the action of the digastricus and other muscles, which tend to produce displacement. Here the muscles, which have the power of depressing the lower jaw, would draw the anterior fragment downwards and backwards towards the os hyoides; but they are resisted by the pterygoid, the temporal, and the masseter muscles, and thus the bone is held steady. Fractures of the ramus of the lower jaw are not common, because that part is greatly protected by the masseter muscle, and the arch of the zygoma, Fractures of the neck of the condyle are more common than those of the coronoid process, the latter being, indeed, of rare occurrence. When the condyle is broken off, it is apt to be displaced inwards and forwards, or drawn away from the neck by the action of the lesser pterygoid muscle on the upper fragment, and a depression may be felt in front of the meatus auditorius externus: this kind of displacement is a circumstance deserving of recollection in the treatment. In fractures of the ramus of the lower jaw bone, the attachment of fibres of the masseter to both pieces has the effect of preventing any displacement of them.

With respect to the general symptoms of a fracture of the lower jaw, I may remark, that, when there is displacement, the case is obvious enough: you then immediately recognise an irregularity in the line of teeth, and also in the line of the base of the jaw: you must examine those two lines. In many instances, you will notice that the mouth is inclined to one side, and the perception of a crepitus is generally easy on taking hold of the jaw, when you will be able to detect the motion of the fragments and their friction against one another. When the gums or soft parts are so lacerated, as to constitute, with the injury of the bone, a compound fracture, then the nature of the accident is still more obvious. When the ramus, or one of the condyles is fractured, the patient usually complains of severe pain in the ear, and a crepitus is distinguishable on moving the lower jaw; but in these cases, and in others, where the coronoid process is fractured, there will be no deformity from any alteration in the position of the chin.

The reduction of a fracture of the lower jaw attended with displacement is easy; it is accomplished by introducing the thumbs between the teeth to the inner side of the bone, the base of which is to be externally grasped on each side with the fingers, and then the fragment, which is drawn downwards and backwards, is to be inclined upwards and forwards, while the rest of the bone is held steady. The reduction, I may observe, is easy enough, but the maintenance of the reduction, which is the second indication in the treatment of all fractures, is more troublesome. In reducing the fracture, you must be particular in attending to the two lines, which have been specified, namely, that of the arch of the teeth, and that of the base of the jaw, for by attending to those lines, you will be enabled to judge whether the reduction is properly performed or not. Now, gentlemen, in order to maintain the reduction of a fracture of the lower jaw, one principle for observance is, to make the teeth in the upper jaw a fixed surface, against which the broken lower jaw may be bound, and kept steady. You may therefore put the teeth of the lower jaw evenly in contact with those of the upper jaw, and thus you will have a kind of fulcrum to assist you in keeping the fragments motionless; but, gen-

tlemen, it frequently happens, that the teeth are very irregular, or are deficient in one or both jaws, and then we are advised to place a piece of cork between the two jaws; but I believe few practical surgeons resort to this expedient. In France it is common to tie the teeth adjoining the fracture together with a piece of dentist's silk, wire, or catgut; and the same thing has been done in England; if it can be easily accomplished, I know of no objection to the plan, for certainly it must be very efficient in keeping the fragments steadily in contact. In this country we trust chiefly to the operation of a bandage, and the one used for this purpose, is the four-tailed sling bandage. The patient should first have a night cap put on, to which the tails of the bandage can be conveniently pinned. In simple fractures of the lower jaw, some practitioners begin with applying a compress along the base of the jaw. You then take the bandage, which I hold in my hand, apply the centre over the chin, and carry the front tails to the back of the head, and there fasten them to the night cap, while the other two tails are brought upwards, and fastened at the top of the head. With this bandage and the compress, or without so bulky a compress as is used in France, the case may be managed very well. When one fragment sinks towards the os hyoides, a compress should be put under the chin; and in other instances, where the neck of the condyle is fractured, and the detached portion is drawn inwards and forwards by the lesser pterygoid muscle, as you cannot act on the displaced fragment, you should endeavour to make the rest of the bone follow it. For this purpose you may apply a compress just behind the angle of the lower jaw, and making the posterior tails of the bandage act with due tightness, you will cause the bone to incline towards the detached condyle. It is sometimes alleged, that fractures of the neck of the condyle of the lower jaw never unite by bone; this I know is the opinion of some modern French surgeons. I may also observe, that occasionally the fractured condyle does not unite at all, but an abscess forms, and the detached portion of bone is discharged along with the pus. Some practitioners are partial to the plan of inclosing the lower jaw in pasteboard, which is first soaked in vinegar, and applied in a softened state to the outside of the jaw; and as soon as it is dry, it forms a solid case for the part. However, the pasteboard may generally be dispensed with, particularly as in some instances its hardness produces inconvenience, and even ulceration. Except in examples requiring more than the usual support, I recommend you, therefore, to employ only compresses and the four-tailed bandage for maintaining the reduction of the fracture. But, gentlemen, if you employ pasteboard, put some soap plaster between it and the skin, so as to prevent the inconveniences liable to result from its hardness and stiffness. During the early part of the treatment, the patient should refrain from conversation and mastication, and live on spoon victuals. In very bad compound fractures of the lower jaw, it might even be useful to introduce a gum catheter from the right nostril into the œsophagus, and inject all medicine and nourishment through such tube into the stomach, thus avoiding the disturbance of mastication and deglutition.

Compound fractures of the lower jaw form a considerable proportion of these accidents, because direct violence is almost always concerned in their production. It is curious that fractures of the lower jaw are considered to be much less common accidents in France than in England, where boxing is fashionable. At all events, broken jaws often occur in this metropolis, and within the last two years, I have seen at least three cases, which were the consequence of the pugilistic art; and as the soft parts suffer a great deal of contusion, in cases of this kind, venesection is frequently indicated. The treatment of a compound fracture of the lower jaw consists in, first, reducing the fracture and removing all loose splinters of bone, and then applying to the wound simple unirritating dressings, over which is to be put a compress and the four-tailed bandage. If abscesses arise, as sometimes will happen, then another indication will be, to discharge such abscesses as soon as the matter collects. The part is to be kept clean, and the mouth washed with a simple gargle, or one composed of a weak solution of the chloride of soda. Necrosis is also particularly common after compound fractures of the lower jaw, and then the cure is often retarded by the great length of time sometimes required for the exfoliations to be completed.

Fractures of the lower jaw may be complicated with injury or laceration of the inferior maxillary artery in its course through the canalis dentalis. I have seen several cases, in which such hæmorrhage took place as left no doubt of a wound of this artery; but, in every instance, the hæmorrhage stopped as soon as the fracture had been reduced. Cases have happened, in which the inferior dental nerve was torn, and tetanus excited: one instance of this sort is recorded by Flajani of Rome; his patient, in fact, died of tetanus, and, on examination of the party after death, the inferior dental nerve was found to be lacerated.

In general, fractures of the lower jaw are quickly repaired, a circumstance explicable by the great vascularity of the bone, through which a considerable artery runs. Hence, in young persons, a fracture of the lower jaw-bone will unite in two or three weeks, and in adults in about thirty days. However, though this is the usual course of a fracture of the lower jaw, sometimes things happen differently, and no union at all takes place. Perhaps, you may recollect, that it was in an instance of this kind, that Dr. Physic of New York first

tried what effect a seton would have in bringing about a bony union, and that he passed one between the fragments, the result of which treatment was the cure of the ununited fracture. I have seen a few horrible cases, in which the whole of the lower jaw was shot away, together with the muscles attached to it, and a great part of the tongue. Now, the poor soldiers, to whom I allude, recovered with tolerable expedition, though of course they remained in a dreadfully mutilated state.

The next *fractures*, gentlemen, which I propose to consider are those of *the spine*. If we except the spinous processes, one of which may be broken without any other injury being done, the vertebræ are rarely or never broken singly; the spinous process of one may be broken by itself, or the transverse process of a vertebra may be broken by a gun-shot violence, but it is rare for a fracture of the spine to be confined to one vertebra, and in almost all instances, besides the body of one vertebra, the articular and transverse processes of those, above or below that whose body is broken, are involved in the injury. Fractures of the spine, like those of the cranium, are important and dangerous, not from the injury done to the bone, abstractedly considered, but from the effects likely to be produced by that injury on the essential part of the nervous system, contained within it, and protected by it. The spinous processes of the vertebræ may indeed be fractured without any injury of the spinal marrow; but those fractures, which extend through the bodies of the vertebræ, and, at the same time, affect the articular or transverse processes of the neighbouring ones, can hardly happen without causing more or less mischief of the spinal marrow, in consequence of which a dangerous train of symptoms will come on, generally ending sooner or later in death.

When the lower part of the vertebral column is fractured, there is paralysis of the lower extremities, and also of the bladder and rectum. When the fracture takes place somewhat higher up, the abdomen always becomes prodigiously distended with air, an accumulation of which in the intestines, I may observe, is a very common thing when the fracture affects the lower dorsal vertebræ. When the fracture is still higher up, in addition to the symptoms just mentioned, you will observe paralysis of the intercostal and abdominal muscles, so that the patient is compelled to carry on respiration almost entirely by means of the diaphragm; and, if the fracture be above the fourth cervical vertebra, or above the origin of the phrenic nerve, then respiration cannot go on, and the patient soon perishes; that is, supposing the injury to be attended with severe mischief to the spinal marrow, because instances are met with, in which fractures take place as high up as the point referred to, yet without producing immediate death. Another common symptom of a fracture of the vertebral column is priapism. Now these are the usual consequences of the accident, when there is displacement of the fragments, because then there must be more or less compression, or other injury of the medulla spinalis. On dissection, the spinous process of the broken vertebra is found either more depressed or more prominent than natural, the body of the vertebra broken through, and one part of it displaced, either backwards or forwards, or laterally, as is represented in Cruveilhier's engraving on the table, in which the fragment is displaced sideways. There is also generally an extravasation of blood between the vertebral canal and the sheath of the medulla spinalis, or between the sheath and the medulla itself. In the case, from which this preparation was taken, there was effusion of blood on the sheath of the medulla spinalis, but, as the spirit is rather turbid, you cannot see the fact so well as one could wish. A slight displacement of one of the vertebræ compresses and bruises the spinal marrow, a more considerable one crushes it, as it were, though even then the sheath generally offers sufficient resistance to escape laceration. In the preparation, which I now show you, the spinal marrow was compressed but the sheath was not lacerated; it seems that the patient, from whom the parts were taken, lived thirty-eight days after the accident, and some attempts of nature for the reparation of the bone may be noticed. Here is another instance, in which the lower portion of the spinal column was displaced backwards, the spinal marrow crushed, and its shaft torn. The patient had complete paralysis of the bladder, so that it was necessary to draw off his urine, once or twice a day, with a catheter as long as he lived. In another preparation before us, one of the fragments remains attached to the ligaments of the spine.

With respect to the symptoms of a fracture of the vertebral column, many and the most dangerous of them may be brought on by simple concussion of the spinal marrow; they may be, indeed, nearly the same as in compression of that organ. Hence some obscurity may occur in the diagnosis, unless you should be able to detect an inequality in the line of the spinous processes, produced by the displacement of the injured vertebra, because you would hardly venture to move the bones to ascertain if there were crepitus. If there should be a considerable and manifest depression or prominence of the spinous processes, and, at the same time, paralysis in a degree corresponding to the height of the injury, then the nature of the case would be clear enough.

Gentlemen, on Monday evening this subject will be continued.

OBSERVATIONS ON THE HISTORY OF OXALIC ACID AS A POISON.

Read before the Medico-Botanical Society, Tuesday, 26th March,

BY J. CLENDINNING, A.M., M.D., &c.,
Lecturer on Toxicology to the Society.

(*Concluded from p.* 588.)

CHEMICAL HISTORY.

Oxalic Acid is one of the few vegetable poisons in the detection of which chemistry affords us important and certain assistance. On former occasions I have remarked upon the difficulty of identifying noxious substances of vegetable origin, and have pointed out, as a main source of that difficulty, the instability of vegetable compounds, and the facility with which consequently their combinations are subverted and altered; and have stated that in the present state of chemistry little information can be gained from tests with respect to these poisons. With a few exceptions, the reactions of mixtures suspected to contain noxious vegetable substances are too variable and ambiguous for the purpose of forensic medicine; and, accordingly, in almost every instance in which toxicological science has been summoned in aid of the law, and in which any valuable chemical indications have been obtained, the deleterious substances have been mineral. There are, however, a very few, but striking, exceptions, of which oxalic acid is a principal one. This acid, indeed, possesses a stability not inferior to that of many mineral compounds. Its chemical history, therefore, is comparatively well known; it has strong acid affinities; it is the great test for lime, which it takes away from other acids; and it has striking relations to several other salifiable bases; in common with but a very few more acids, forming acidulous salts of less solubility than its neutral compounds. In these and other points it possesses considerable interest in the eyes of the chemist, as has been, no doubt, with his usual ability, represented to you by my learned colleague, the Professor of Chemistry, in an address, which I regret much not having had the good fortune to hear.

But there is one point of view in which this substance has a peculiar, and, as it were, transcendental interest amongst poisons in general, namely, that in which we regard it as an effect of what we may, without much impropriety, call the creative energy of science, as an example, in the highest degree, of its exercise of that power which Bacon seemed to consider but another name for knowledge. Of these triumphs of creative mind over matter no science whatever, indeed, furnishes so many or so brilliant samples as chemistry. The chemist's privileges and prerogative, in fact, exceed those of most other students of nature. He is not a mere spectator and journalist of actions and effects beyond his controul; nor is he an humble describer of structure and features,—an historian of habitudes and actions over which he has little, and that but indirect, influence. His knowledge of that past, which is the model and measure of the future, does not terminate in a passive, often barren foresight of that which is yet to be, which is but the lowest degree of intellectual attainment, the minimum of active power. With the astronomer and geologist, he records the successions and traces the connexions of natural phenomena or changes; with the botanist and geologist, he describes sensible qualities, detects latent virtues, and declares the sources and physical conditions of properties and bodies. But he does not stop here;—after having accompanied them to the extreme frontier of their dominions, he finds himself still far distant from the bounds of his own power. In many instances, he can make and unmake and remake the object of his studies: he can impel, arrest, continue, suspend, or neutralise their actions and affections; he can isolate and variously combine their substance, and, to an almost unlimited extent, alter and remodel their forms, dispositions, and constitutions; he can make the most similar antagonise, and the most opposite coalesce; and from such oppositions and coalitions can educe phenomena and qualities altogether alien from the characters of the combining substances, and often unparalleled in nature, and can thus CREATE for himself instruments of utility. Let me explain myself by an example or two. He can extract a substance resembling zinc or iron out of a body transparent and soluble in water, which substance he can cause to float on water, burning vividly while it floats. He can make two airs combine to form a liquid, or to form a solid, as ice, smelling salts, or sal ammoniac. Solid substances he can, in very many instances compound in the first place, and afterwards cause to undergo sudden and impetuous expansion, and dissolve themselves for the most part into vapours or air. One and the same element he can make either a principle of acidity or of alkalisation. Of another interesting element he can produce one form eminently combustible, and even explosive, another an eminent extinguisher of combustion, another a most deadly poison, while the pure substance itself is quite innocuous to whatever surface of the body it may be applied. This same element, though from its extreme tenuity and elasticity the most impotent, perhaps, mechanically speaking, of all substances, the chemist has so effectually subjugated, as by its means to be able to mingle among the denizens of the air, to travel from kingdom to kingdom, and to ascend to regions beyond the clouds, far above the highest flight of the eagle. If I do not forget, Gay Lussac ascended some thirty years since in a balloon nearly as high as the summit of Chimborazo, and not far short of the highest elevation of the mighty American vulture, the condor. And the chemist can

not only force matter to change combination and form in imitation of processes, of which he has had opportunity of observation out of the field of experiment, but he can in several instances produce compound substances, identical in all respects but the mode of production with others found in nature, of the natural mode of whose formation he is quite ignorant; and even in a few cases he can effect the formation of bodies which exist no where in nature, and which are of eminent utility, and contribute largely to the comforts and elegancies of life. Of the latter class I would specify alcohol and the æthers, which appear to be wholly and exclusively creatures of art. Of the former we have very many examples; in proof of which I may cite camphor, tannin, or the tanning principle, vinegar, ammonia, and numerous acid substances, the subject of this evening's observations, oxalic acid, included. Some of these last named substances exist but sparingly in nature; vinegar, for example, exists in no quantity except combined with potash in some plants, and the amount of the whole of natural vinegar is perhaps not a millionth or trillionth of what the exigencies of life require; of prussic or oxalic acid likewise the natural supply is very insufficient, while art can make them in unlimited quantities.

In this point of view, then, it must be admitted that chemistry bears away the laurel from all other natural sciences, and that it more strikingly illustrates and more convincingly attests the truth of that remarkable saying, "Knowledge is Power." Whilst oxalic acid, as affording in its history a very striking exemplification of the truth of that celebrated Baconian aphorism, cannot fail to possess a high interest for the philosophic mind, independently altogether of its important relations to analytic chemistry and forensic medicine. The means of detecting the agency of oxalic acid as a poison are partly physiological, partly chemical; the symptoms it produces are striking, and in some respects peculiar; the rapidity of its action exceeds that of most common poisons, so that often an accurate description of the sensations and sufferings of the patient might be expected to enable an inquirer to infer with high probability the presence of that body. In fact, if shortly after swallowing a suspected fluid, the patient should have complained of burning in the throat, acute stomach-ach, quickly followed by excessive faintness and loss of pulse, and if he should have been sensible of acidity while swallowing, and if death should ensue in half an hour or an hour, the probability is that the patient has been a victim to the acid poison, and the shorter the interval between the application of the suspected substance and the pain, faintness, and death, the higher would be that probability; should any sour solution, and, still more diagnostic, should any sour slender pyramidal or prismatic crystals be found in suspicious circumstances in the apartments of the deceased, the proof would be morally complete.

But justice will have nothing less than the best evidence that can be had, and the use of chemical agents is indispensable to satisfy her demands. The substances most approved of as re-agents are 1st, muriate of lime, and 2nd, sulphate of copper, and there are two other tests; 3rd, the results of adding ammonia to a solution of the suspected substance, or portion of the suspected fluid, when, if the ammonia be sufficiently concentrated, we shall always observe a radiated crystsalliation of hyper-oxalate of ammonia, different from any other crystals. We are assured by its first proposer (Lancet for 1830–31, vol. i.) that ammonia forms with any other acid commonly met with. On this test, the inventor, my friend, Dr. O'Shaughnessy, places considerable stress, and on the authority of that accomplished chemist, Dr. Christison has adopted it. I have myself found it answer well, but have been sometimes disappointed, owing perhaps to my having neglected to employ a fresh and strong solution of ammonia; 4th, another test is the throwing down a white powder by addition to the fluid, under examination, of nitrate of silver, and causing the precipitate to fulminate faintly by the heat of the spirit lamp, which it does soon if dry, but previously, if narrowly observed, being perceived to turn brown at the edges; after fulminating it disperses itself completely in a volume of whitish fume, and nothing remains on the spatula; this is a very elegant test.

1. The *muriate of lime* gives with oxalic acid a whitish deposit, *resoluble by the addition of a little nitric acid*, which distinguishes it from sulphate of lime, and *not resoluble by a little muriatic acid*, which distinguishes it from phosphate, carbonate, tartrate, and citrate of lime, which quickly disappear on addition of a few drops of the hydro-chloric acid; this is a test of great delicacy.

2. The sulphate of copper gives with oxalic acid a greenish or bluish white precipitate, *not resoluble by a small addition of muriatic acid*, which distinguishes oxalate of copper from the phosphate and the carbonate, by which only we might be misled; this test does not disturb solutions of nitric, sulphuric, muriatic, citric, or tartaric salts, on account of these acids forming with copper soluble compounds, and all having weaker affinities for bases than the oil of vitriol.

When no pure solution of the acid can be had without examining the matters ejected from, or remaining in, the stomach, or any thing that may remain of the suspected fluid, our first object will be to get rid of every thing, whether suspended or dissolved, which might obstruct our re-agents, or obscure their action; this can frequently be done by mechanical means, by subsidence and straining; the acid has little affinity for animal matters, and is often quite free in the contents or ejections of the stomach. If by mechanical purification we

obtain a tolerably clear fluid, of sour taste and acid re-action, we may at once proceed to the application of our tests. But if antacids, of the earthy kinds, have been administered, we must then adopt a more circuitous method. The whole of the suspected fluids, with their deposits, are to be boiled in a weak solution of carbonated alkali until every thing soluble is dissolved; subsidence and filtering are again to be employed, and the cold and filtered liquor is to be neutralised with nitric acid; the liquor is, if still too impure, to be boiled, cooled, filtered, and neutralised as before a second or even a third time, for, during each successive circle of changes and operations, it throws off additional impurities at every step, approximating more nearly to the degree of purity required for the application of our tests, and, after having obtained a clear liquor, we are to throw down the oxalic acid of the hyper-oxalate of potash (formed by the decomposition of the alkaline carbonate of the water of ebullition) by means of sugar of lead; the oxalate of lead is then to be well washed on a filter, and afterwards exposed in a state of suspension in water to a stream of sulphuretted hydrogen till completely black, and the result of the whole, after again boiling and straining, is the obtaining a solution of sufficiently pure oxalic acid in water to be tested with the re-agents already mentioned.

Before concluding, I would mention that a source of fallacy has been supposed to exist in the action of carbonate of potass on the animal matters directed above to be boiled in the alkaline solution. I have not myself had leisure to investigate this point, and cannot, therefore, from my own experience, deny that the objection has as much weight as has been attributed to it. Caustic potass, it is admitted, occasions the formation of oxalic acid from animal matters subjected to its action, and a distinguished member of this society has informed me, that he has found it produce this effect even in the cold. But I am inclined, notwithstanding, to believe that Dr. Christison's process is sufficient for the purposes it is intended to serve, more particularly when he assures us that he "has found that the carbonate of potass has no such effect" as that which caustic potass is known to produce.

At the close of the lecture Dr. Clendinning exhibited numerous phials containing preparations, illustrating the different stages of the experiments described, and two in particular, containing crystals of oxalic acid and of mixed Epsom and Glauber's salts, between which several gentlemen present could with difficulty, and some not at all, distinguish.

LECTURES

ON THE

PHYSICAL EDUCATION AND DISEASES OF INFANTS AND CHILDREN,

DELIVERED

BY DR. RYAN,

At the Westminster Dispensary, 1833.

INTRODUCTORY LECTURE.

Importance of Infantile Hygiene and Medicine.

GENTLEMEN,—The branch of medicine to which I shall direct your attention in the succeeding lectures has, hitherto, been greatly neglected by the profession, though of as much importance to humanity as any department of our science. We cannot be surprised at this defect, when we consider how very recently the study of obstetricy has been enforced by our universities and colleges; and when we reflect, more especially, that candidates who present themselves for admission into our profession are not examined in this branch of education, nor in its last part, infantile medicine. Students in general only attend to the subjects with which they must become acquainted, and they generally neglect all others, however essential. The fault lies with the examining bodies, who sanction such an act of gross injustice towards society at large. I shall, however, endeavour to convince you, that you are morally bound to study with due diligence every thing that relates to the judicious and successful practice of medicine. I need scarcely observe, that it would be no excuse to offer to an affectionate parent, on the death of a favourite or only child, were a medical practitioner to say, "I am sincerely sorry for your affliction; diseases of children are not properly studied; in fact, the profession in general know nothing about them;—in truth, there is no examination in them." Well might a parent stare with astonishment on hearing such a declaration. Allow me to observe, that, according to moralists and physicians, when death occurs in consequence of the wilful ignorance of the medical attendant, it is held that he is accountable for the life of the individual, or, to speak more plainly, he is considered guilty of homicide. I might cite a host of writers in attestation of this opinion; but when I inform you that it was held by the renowned author of the *Conspectus Medicinæ Theoreticæ*, a work with which you are all conversant, I need go no further for authority. Dr. Gregory maintained, that if a patient died in consequence of the practitioner trusting to inefficient remedies, and not employing the best, he would be guilty of culpable homicide. He held, in common with all moralists, that the duties of the medical faculty were supreme and indefeasible, "which no individual, and

no set of men, can either for themselves, or their successors, violate, or renounce, or neglect, without substantial injustice. The duty of every medical practitioner to his patients, is to practise cautiously, chastely, honestly, and faithfully to procure or do all things conducive to the health of the bodies of the sick; and lastly, never, without weighty reasons, to divulge anything which ought to be concealed that he heard or saw in the exercise of his profession." "In common sense and justice," says this celebrated professor, "and I should think in law too, he is bound to perform all those duties to the utmost of his power. But in no case that I can suppose, do I conceive that he may legally or justly violate, or neglect, or renounce any one of these duties, all of which every patient expects, and has a right to expect and receive from his physician. To withhold the best medical assistance voluntarily would be almost as criminal as to suffer a wretch to perish by withholding food from him*." It is a moral axiom, that all professional men are bound to restitution for the injustices and evils of which their ignorance has been the cause. It is the strict obligation wisely imposed on every human being that he be very diligent in employing himself in his profession or calling. It is the condition assigned him by his Creator, with a precept that he employ himself faithfully therein, a duty he owes to God, to himself, his family, and the common wealth of the world. It therefore follows, that medical students are strictly bound to acquire all the knowledge afforded them by their instructors; and that they cannot neglect to do so without violating the divine law, and committing a gross injustice to themselves and the public.

I have deemed it my duty, gentlemen, to remind you of the obligations imposed on all professions, and on all mankind; but more especially because medical students in general neglect to study the department of medicine, to which I am about to call your attention. Let it not be supposed that my remonstrance is particularly intended for the pupils of this class, for it applies as forcibly to their predecessors, and to a preponderating majority of medical practitioners. I state this with deep regret; but it is an incontrovertible truth. Hence the immense mortality of children, on which I shall dwell hereafter. This melancholy result must be expected, when we consider that there is not as yet, so far as I know, a complete treatise on the physical and medical treatment of children.

Many illustrious philosophers and physicians of former ages partially described the physical management and principal diseases of infants; but as yet there is not a perfect work on infantile hygiene and medicine. There is no treatise on children which embraces correct views on anthropogeny, or the generation of man, the proper period for, and impediments to, matrimonial engagements, the rules to be observed by parents after conception, the physical and medical management of utero-gestation and its consequences, the influence of the mother on the fœtus in utero, the management of the new born infant, embracing all the cares from the moment of birth, including dress, food, influence of air, exercise, sleep, cleanliness, moral management, state of constitution, congenital diseases before and after birth, causes, diagnosis, and therapeutics of infantile diseases from birth to childhood, boyhood, girlhood, and puberty.

The knowledge accumulated on these topics is scattered through an immense number of ancient and modern works, most of which are inaccessible to students, and even to the majority of practitioners. The result is, that parents in general derive very imperfect instruction from their medical advisers, and their own views on the subject are the most prejudiced and injurious. Few are aware of the havoc of human life in the infantile state which takes place from the lamentable ignorance of society on the physical education or rearing of infants; and every well-wisher of our species must desire that universal ignorance may be enlightened on such a vital topic.

The want of information on this subject is one of the causes of the degeneracy and mortality of the human race. It operates on the perpetuation and nurture of children. It will be admitted that fathers, mothers, and nurses transmit the germs of diseases to infants so considerably, that scarcely one in twenty adults has a healthy constitution. This degenerescence increases with civilisation. The errors in the physical education of infants and children contribute very largely to it. There is no doubt, however, that there were feeble infants in past ages; or that the legislators of Sparta, China, &c., doomed them to destruction. But, however barbarous we may consider their law, we must bear in mind that modern governments treat children with great indifference. The custom of compelling them to undergo excessive mental and bodily exertion in schools, foundling hospitals, and factories is destructive to health, and has at length obtained the attention of our government.

It is a maxim of all civilised legislatures that the largest and healthiest population is the life and strength of a nation, on which depend the success and promotion of the sciences, arts, agriculture, commerce, manufactures, and colonisation. The conservation of infants is therefore an essential part of the public health, and a matter of deep im-

* Memorial to the Managers of the Royal Infirmary, 1800. By James Gregory, M.D., President of the Royal College of Physicians, Professor of the Practice of Physic in the University of Edinburgh, &c.

portance to politicians, and to society at large.

The fact is, that the science of infantile hygiene and medicine is of considerable interest. I have always considered, since I became a member of the profession, that every form of human disease ought to be studied by medical practitioners. I agree with the ancient sage in the opinion—

" Homo sum, nihil humani, a me alienum puto."

This should be the motto of every medical practitioner. Many eminent physicians were of this opinion, and wrote on the subject. Among these were Hippocrates, who wrote " De Natura Hominis, de Genitura, de Natura Pueri, de Partu, de Superfœtatione, de Dentitione, &c." Most of his renowned successors followed his example, until the time of Harris, in 1668, who was the first English writer on diseases of children. He was followed by Sydenham, Locke, Ballexserd, Montaigne, Fénélon, Rousseau, Primrose, Dessessartz, Andrée, Raulin, Fourcroi, Lerebours, Astruc, Rouzet, Struve, Cadogan, Buffon, Friedlander, Sparman, Moss, Hugh Smith, Armstrong, Hoffman, Buchan, Cheyne, Hulme, Underwood, Heberden, Hamilton, Willan, J. Clarke, Syers, Alphonse le Roy, Mahon, Bassard, &c. &c.; and among the moderns, Hamilton, Burns, Arthur Clark, Capuron, Dewees, Billard, Merriman, Gervino, Darwall, Marley, and Dendy, with numerous essayists in the periodical and systematic works. The best of these works, in our language, are those of Hamilton, Burns, Dewees, Underwood, and Merriman; and in French, those of Ballexserd, Capuron, Leroy, and Billard.

I am ready to admit that there is a vast deal of valuable information in many of these productions, but there is an immense quantity omitted. Some of these authors treat of physical education of infants only, and others of the infantile medicine without hygiene. It is evident that both ought to be included. Hippocrates, Harris, Ballexserd, and Dewees, commence their works with a disquisition on marriage, the rules to be observed after conception, the influence of pregnancy on the development of the fœtus in utero, and the management of the infant, both physical and medical, from the moment of birth to the age of puberty. Underwood begins with the last part of the subject, and then proceeds to the consideration of the diseases. Ballexserd confined himself to the physical education alone.

It appears to me, that the hygiene and medicine of infants should be described in one work, or consecutively; and that the causes which influence generation and the development of the new being from the moment of its existence, should be premised. If we adopt this arrangement of the subject we shall embrace all its parts, and reduce infantile medicine to a perfect system.

I propose to attempt this novel and difficult undertaking; and though I may fail to accomplish it in the most perfect manner, I hope to lay down the principles by which you ought to be guided. In executing this task it will be necessary to employ some new scientific terms. These will, I trust, be approved of by every one conversant with classic literature. They may be ridiculed by those ignorant of the beauties of the learned language, and some thickheaded mortals may despise them as they did those I have already introduced: for example, *obstetrician* instead of *accoucheur and man midwife*—a word now universally adopted —*obstetricy* for *midwifery*, &c. &c. No one will condemn an improved nomenclature who is conversant with the rapid progress and vast improvements in this branch of medicine, now in use in the continental schools of Europe. For my own part I see no reason why our terminology should not equal that of any part of the world.

I shall now place before you the arrangement I mean to follow in describing the hygiene and medicine of infants and children.

I. Anthropogeny, or an account of the generation of man, including the proper age for marriage—the disqualifications for this important condition—its good and bad effects on parents and their offspring—the management of the mother during pregnancy—precepts as to her food, exercise, tranquillity of mind—influence of her imagination, &c.

II. Physical and moral education of infants from birth until ablactation or weaning, including precepts on maternal lactation or suckling—mercenary lactation—rules for the selection of wet-nurses—artificial lactation or dry-nursing—solid aliments of infants—the proper period for ablactation or weaning—dress—air—exercise—placing the infant on its feet —walking — sleep — repose — cots — cradles —waking — cleanliness — ablution —washing —bathing—moral management—constitution —and regulation of the nursery.

In order to render the subject of hygiene more interesting, I shall adapt it to the following epochs of life. Infancy, which extends to the end of the second year, when the first dentition is in general completed; childhood, which extends from the end of the second to the termination of the seventh or eighth year, the time at which the second dentition is terminated; boyhood or girlhood, which commences at the seventh or eighth year, and continues until puberty, which, in this country, is the fourteenth or fifteenth in the male, and the twelfth or fourteenth in the female. At this age adolescence commences, and maternal influence ceases in a great degree.

III. The anatomical and physiological states of infants.

IV. The pathological state of infants.

a. The etiology or causes of infantile diseases.

b. The diagnosis of infantile diseases, deduced from the cerebro-spinal,

circulatory, respiratory, digestive, secretory, locomotive, cutaneous, and generative systems.

V. Therapeutics, comprising comments on remedial agents, cathartics, emetics, narcotics, epispastics, counter-irritants, general and local bleedings, &c.

VI. Embryonosology, or description of diseases of the fœtus in utero.

a. Hereditary diseases.
b. Malformations.
c. Congenital diseases.
1. Those caused by parturition.
2. Those caused by malpractice.
3. Those caused by malformation.
4. Medico-legal inductions.
Mortal malformations and diseases.
Non-mortal malformations and diseases.
Those that do not oppose vitality.

VII. Pædonosology—Infantile medicine—History of diseases in particular.

1. Diseases of the cerebro-spinal system.
2. Diseases of the circulatory and respiratory system.
3. Diseases of the digestive system.
4. Diseases of the lymphatic system.
5. Diseases of the secretory system.
6. Diseases of the muscular system.
7. Diseases of the osseous system.
8. Diseases of the ligamentary system.
9. Diseases of the senses.
10. Diseases of the cutaneous system.
11. Diseases of the genito-urinary system.

This arrangement has not been followed by any of the authors whom I have mentioned. I need scarcely remind you, that I have partially described the physiology and hygiene of of the infant, in my *Manual of Midwifery;* and included the generation, development, and nutrition of the fœtus, its size at the different months of utero-gestation, the phenomena that occur at birth, the ligature and section of the umbilical cord, the manner of washing, swathing, and dressing the infant, its food, cleanliness, exercise, sleep, in fine, its physical and moral education. The subject of lactation or suckling, maternal, mercenary, and artificial, and consequently the choice of nurses, with the different methods of rearing infants by dry nursing, or the hand, have also been noticed. Rules were likewise given, with respect to the proper use of remedial agents; and finally, a succinct account of the nature and treatment of diseases of infants. The limits by which I was circumscribed in the work, prevented me from describing these numerous subjects in detail; and I need not tell you, that I have merely given the heads, or an analysis of my lectures on midwifery and diseases of women and children, in that production.

It is lamentable to think, that until this day the greatest ignorance and empiricism prevail among all ranks of society, with respect to the physical and medical management of infants and children. It must be acknowledged, therefore, a matter of considerable importance, to form a science for their preservation and amelioration. This science may be reduced to a few precepts. The mortality of infants in some countries is immense, amounting to one half, and two thirds in certain places, during the first year of existence. Such are the frightful ravages on our species, while we preserve almost all our domestic animals. Among the infants that survive, very few arrive at robust health. They are generally enfeebled, and easily fall victims to the numerous diseases to which they are liable. It is calculated, that of a thousand infants, two hundred and sixty die during the first year; eighty perish in the second, forty the third, twenty-four are cut off in the following years; in short, at the end of eight years, scarcely one half of them are alive. But the mortality is considerably diminished since the discovery of vaccination. It is chiefly caused by mismanagement. Every one must be convinced of this, who has the slightest idea of the numerous prejudices of mothers and nurses, to combat which a large volume might be written.

The study of infantile diseases is by no means so difficult as some persons imagine. A correct knowledge of the principles of medicine renders it easy, and extremely interesting to the medical practitioner. The greater number of the diseases of infants are treated by the same means as those of adults; but there are certain peculiarities in the natural history of infancy, which it is necessary to study with attention. The anatomy and physiology of infants widely differ from those of man. The infantine organism is distinguished by an excess of vitality indispensable to nutrition and development; and this excitability is more intense in the pathological condition, which has been too generally overlooked, so that the treatment of the diseases of infancy has been long based on the grossest empiricism. It is therefore necessary to reduce the pathology and therapeutics of this period of life to those established principles, as applied to adults, making due allowances for the difference of age and constitution. I cannot agree with M. Leroy, when he says, " the young practitioner should commence the study and practice of medicine on infants; it is much easier to remedy their diseases than those of adults, as their causes are less numerous, their sensations less multiplied; it is easier to recognise, repair, modify, change the principles which constitute them; they approach nearer to an elementary state, they are more homogeneous; the combinations are less multiplied, &c." This learned professor forgets, that diseases are first observed by students in adults. His compatriot, M. Billard, takes a more rational and scientific view of the subject.

He observes, "the chief object of this work, is to expose the symptoms peculiar to diseases of infants, and to consider their relations to organic changes. I have," he continues, "passed successively in review, all the apparatus; I have studied the varieties of form and aspect of each organ in a sound state, in an anormal state, and in a pathological state, and it is not until I have discussed and appreciated the symptoms and the nature of anatomical lesions, that I have exposed, as a last induction, the method of treatment." This is the true, the Baconian method. Our author was led to follow it, after a perusal of Morgagni's forty-eighth letter, wherein that illustrious author describes the diseases of new born infants, and bitterly regrets, that the tenderness of mothers is opposed to the autopsies of infants, whose diseases had been carefully observed." M. Billard was struck with the correctness of these views, and confirmed them by ample observation at the Foundling Hospital of Paris—L'Hospice des Enfans Trouvés."

His work embraces the principal diseases of infants, but omits a vast number of them, and also the important subject of physical education. To revert to my position, I maintain that the diagnosis of infantile diseases is rendered difficult, because the subjects of them are unable, from want of language and of reason, to express their feelings and sufferings; and hence our inferences and conclusions must often be drawn from faithful observation, and our treatment founded upon the fixed principles of our science. Few practitioners, unless those engaged in obstetricy, enjoy sufficient opportunities of becoming thoroughly acquainted with the diseases of infants. There are some physicians of a different opinion. M. Leroy, for example, remarks, "infants it is said have not language to express their wants, but when a sensible mother and an attentive philosopher hear and observe them, then they are very easily understood: their signs are as expressive as ours. I have been pleased in the study of their language, and their sagacity has always appeared to me more profound than is generally imagined. They perfectly distinguish the nature of affections which are necessary for them, they readily obey, with joy, those whose sensibility is directed by reason, but they are rebellious and even sometimes ungrateful towards their parents, because they distinguish the physical nature, the blindness, the egotism of their affections. The infant has an immense multitude of passions, which are excited by a number of wants, to satisfy which it reasons well and better than is supposed: infants are little men, who discern very well that we are very often in regard to them but great children. Their education, therefore, ought to be based upon the most tender affections, but at the same time directed by reason. Parents who are tender and reasonable have their infants well brought up."—Médecine Maternelle, &c. par Alphonse Leroy, 1830. There is much truth in these remarks, but the diagnosis of infantile complaints is by no means so simple as represented.

The best works for your perusal are the following:—One of the best writers on this branch of Medicine is M. Capuron; in his Cours Théorique et Pratique d'Accouchemens, he gives very briefly the physiology, hygiene, with the moral and physical education of infants; and in his Traité des Maladies des Enfans jusqu'a la Puberté, he treats of the pathological state of the infant, of its diseases, whether hereditary or congenital, accidental or acquired. He first describes the diseases observed at birth, and divides them into two classes, the first comprehends those dependent on delivery, the other those that are hereditary or congenital. In the second part of his work, the diseases which occur from birth to puberty are described in several groups, indicated by the systems, or apparatus of organs, in which they are situated. His system of infantile hygiene and medicine is, in my opinion, one of the best, if not the best, extant. The works of Leroy and Billard deserve a place in every medical library.

The best national work on this subject is Underwood's, edited by Dr. Merriman. The original appeared in 1787, and evinces considerable research, faithful observation, and extensive experience. The author availed himself of the labours of his predecessors, and confirmed or rejected their principles, after a fair application of them to the sick. He declared, that he had made mention of no disease which he had not very frequently met with, "excepting the few which have been expressly remarked as very rarely occurring." He was the first who administered calomel to children. He contended that the diseases of infants were as easily detected as those of adults. His work is divided into two parts, the first on the management of infants, the second on their diseases. The style is verbose, and the whole substance of the work might be easily given in half the space occupied with it. All the works on children, that have subsequently appeared in this country, are transcripts or abridgments of it, and if you possess Underwood's book you have the whole.

This, however, is very far behind the present state of infantile medicine. Though I recommend this work, it is not so good as Capuron's, Billard's, or Dewees'.

Dr. Dewees has followed the plan of Underwood, but has prefixed chapters on marriage, pregnancy, the management of women after delivery, and many other topics omitted by our countryman. His work is replete with sound practical information. It is not so graphic as the French productions. These are the best monographs on infantile medicine, but the student will derive a vast deal of information from any of those to which I have alluded. In the succeeding lectures I shall frequently quote all of them, and many others

of value, though less perfect. I have applied repeatedly most of the principles inculcated in dispensary, hospital, and private practice for nearly twenty years, and shall honestly state to you the result of my observations and experience. I have taken a deep interest in infantile diseases; I might truly say with M. Leroy, "I possess profound tenderness for infants. The passions are first observed in them, and it is in them that it is as useful as it is curious, to study their mystery and labyrinth. If we wish to know the mental condition of man in a savage state, it is in infants we find it. It is in them alone we can mark the anatomy of our faculties, these only demonstrate the origin and first essays of sentiment and our first sensations. In these we see how gradually the wants, feeling, idea of existence, and sensations are developed; and we cannot know their origin unless we return to infancy. It is, therefore, the infant that enables man to know himself. Infancy is a mirror in which we can see ourselves at all times, great and small. How could we not love those little beings who reveal to us, and in whom we observe the great mysteries, both of our economy and judgment. The study of infants enables us to discover the mechanism of the essential functions of our economy, it is in their structure that nature works uncontrolled and more evidently, it is in them that we can study man, and his moral and physical states."

Other works remain to be mentioned. Dr. Hamilton's Hints on the Management of Children are excellent so far as they extend. The section on diseases of children in Dr. Burns' Midwifery is extremely valuable, though it omits a vast number of subjects connected with the science of infantile hygiene and medicine.

I trust I have said enough to convince you of the importance of this branch of medical science, and to lead me to expect your wonted attention to this as well as the other subjects which it is my duty to explain to you. The exemplary diligence with which you have invariably attended the preceding part of this session, convinces me that you will not relax in the acquirement of a branch of knowledge so important to yourselves and so beneficial to our species.

CASE OF MALFORMATION,

With Remarks on the Circulation of the Blood.

BY THOMAS ROBINSON, M.D., OF PETERSBURGH, VIRGINIA.

EARLY in September, 1828, while confined to bed with a remitting fever, I received an urgent summons to visit a lady whom I had seen some days before in an advanced state of pregnancy—the messenger was also desired to say that something very extraordinary had happened—this hint roused me. I dressed and repaired to the house as speedily as possible. On entering the chamber a full grown infant, born about twenty minutes before, was presented to me. I was informed that it had struggled strongly for some minutes after its birth, and gasped frequently — the head was finely developed, the face beautiful, the trunk and extremities large and plump, except the left arm, the elbow of which was confined close below the inferior edge of the scapula, the fore-arm closely flexed, and the whole limb covered by the integuments of the trunk, except the hand, which appeared at the edge of the pectoral muscle—both clavicles, the sternum and cartilages of the ribs were wanting, exposing the whole interior of the cavity of the thorax: as the shoulders and ribs were thrown back in a remarkable manner, being unconfined by clavicles, the abdomen was also open as low as the umbilicus, to which point the margins of the chasm converged from the second false rib at each side; along the right margin, the umbilical cord appeared to ramify, and there to expend itself —the investigation of this part, however interesting, was not pursued. At the right side, close within the verge of the opening, and about midway between the umbilicus and rib, a body about the size, colour, and shape of the gizzard of a large fowl presented itself; this mass attached to the margin was hard and *perfectly fibrous*, well furnished with blood-vessels, and communicated by a small branch with the funis; it had no communication with the duodenum, no trace of gall-bladder, and in no particular resembled the liver—the liver and spleen were wanting; the diaphragm cleft, a narrow strip at each side being barely cognisable; the lungs were wanting, the trachea terminated about the place of the first dorsal vertebra, in a knob of cellular and parenchymatous substance

not larger than a hickory nut; at the left of *the spine and higher in the thorax than usual*, was seen the heart, without a pericardium, it was placed very obliquely as well as high up, so that its apex could not have struck below the third rib; it acted with surprising force and regularity between sixty and seventy times in a minute, and appeared to carry on the circulation, as the aorta pulsated very distinctly; my whole attention was immediately riveted on this unexpected phenomenon.

Viewing the heart and feeling it during the pause, although it was perhaps less hard than in either diastole or systole, yet it did not appear in that state of complete relaxation which physiologists ascribe to it; perhaps the antagonizing powers were merely in equilibrio; possibly the contracting power predominated; from this state of quiescence it would suddenly spring dilated with surprising force, its apex elevated with a jerk, finished its double action in the twinkling of an eye, and fall back as suddenly to the stillness of death; no motion like sudden or gradual relaxation appeared in its fibres, though vigilantly watched for, and indeed expected; the diastole, which always preceded, appeared to commence in the venous sinus, and pass without interruption and with immense velocity to the apex; the systole pursued the same course with equal velocity. When you consider that this double action was completed in a space of time less than half a second, perhaps not more than a third, for I think the time of the pause nearly, if not quite, double the time of the action, you will readily comprehend the difficulty of noting particulars in their exact order; that the action passed from base to apex was visible enough—also that the diastole preceded the systole; but so rapidly did the systole succeed the diastole, that I could hardly ascertain with perfect satisfaction to myself, whether the diastole of the ventricle was *entirely* completed before the systole of the auricle commenced; my decided impression however is, that at one and the same moment the diastole is finished, and the systole commenced.

After watching the heart in situ fifteen or twenty minutes, and frequently grasping it to ascertain its force in dilating, I separated it from its connexions; its action continued without sensible diminution, either in frequency or force, and in that state it was put into the hands of different individuals, that they might be qualified to testify the fact. I then proceeded to examine the state of the valves and septum, which were found as usual. The heart was thrown into a basin of cold water; after examining the other viscera for some time, I returned to the heart, and was surprised to find it still moving, feebly, it is true, but with perfect regularity; the attention of the spectators was again directed to this unexpected state, and it was again placed on the hand of Mrs. F. who attended the accouchement. At this period I felt myself sinking so fast, that I was reluctantly obliged to retire without inspecting the viscera of the pelvis, tracing the lesser circle of circulation, or even injecting the funis, the course of which I could not even conjecture without such aid.—*American Journal of the Medical Sciences, No. XXII., February*, 1833.

CASE OF STRICTURE OF THE VAGINA IMPEDING DELIVERY.

BY STEPHEN W. WILLIAMS, M.D.

In the fall of 1831, the wife of O. H. aged twenty-three, was delivered of a dead child, weighing more than eight pounds, after the most severe labour, lasting forty-eight hours, that has ever occurred in my practice. The presentation was natural. For more than five weeks after her delivery her urine and fæces passed from her involuntarily, and it was more than six weeks before she was able to walk a step. At the end of eight weeks she was able to ride out,

and was then comfortable. In the course of a year she became again pregnant, and on the 4th of June, 1832, Dr. Stone and I were called in consultation. Dr. Stone was with her several hours before I arrived; he told me that labour was progresing naturally, but tardily. He remarked that there appeared to be a stricture at the superior strait of the vagina, which impeded the progress of the labour. Upon examination I found his opinion correct. The stricture was situated about two inches and a half within the vagina, *and completely encircled it.* It admitted of dilatation to nearly the size of a dollar. On this stricture the head of the child rested; it felt like the os tincæ, but the os uteri, in the absence of the pains, could be felt beyond the stricture. Although her pains were regular, in consultation we determined to try the ergot, hoping it would increase them, and overcome the stricture. We accordingly administered twenty grains in powder; in fifteen or twenty minutes violent pains came on, which continued two or three hours; the stricture dilated very little, but the uterine efforts were not sufficient to overcome it. We now bled her largely, hoping thereby to relax it, but without avail. Upon further consultation it was thought advisable to divide the stricture with a bistoury, as the only probable method of delivering the woman. The danger of the operation was represented to her and her friends, but the greater danger of letting her remain in this situation was also mentioned. The operation was cheerfully submitted to. I introduced the guarded probe-pointed bistoury flatwise upon the fore-finger of my left hand, till it was completely beneath the stricture, and then cautiously elevated the edge, and divided the stricture in the upper part of the vagina, exactly in the same manner that I divide the stricture in strangulated hernia. The stricture was like a string round the mouth of a bag. This immediately liberated it all round the vagina. As her pains had continued a considerable time, but had now somewhat subsided, we gave her a large dose of the sulphate of morphium, and directed rest and quietude. This was in the fore-part of the evening. She rested tolerably well during the night. In the morning we gave her twenty grains more of ergot; the effect of it was not so quick or great as from the former dose. I have often found that where it is necessary to give a second dose of ergot, it does not operate so soon as the first. Some writers say that this article will not operate at all in producing labour pains, unless they have been previously excited, and that then they increase them. My experience is in favour of this proposition. The pains, however, came on after a while in this case, and after a few hours of severe labour, Dr. Stone delivered her of a dead child, weighing nearly nine pounds.

The stricture in this case was one of unusual occurrence. I can find scarce an instance in the writers upon midwifery, where a stricture has entirely surrounded the vagina, preventing the passage of the head of the child. The stricture in this case very much resembled to the touch the os uteri, and would have been mistaken for that had not the os uteri been felt above it.

The situation of the woman nine weeks after delivery is deplorable. Her urine and fæces pass from her involuntarily; in other respects she is well. She complains of no numbness about her extremities, or about the region of the pelvis, still she has no feeling there. I have repeatedly blistered the sacrum, and applied the most stimulating lotions, and have given her large and increasing doses of the mild tincture of cantharides, means by which she was restored in her former lying-in. She already takes one hundred and eighty drops of the tincture every day, and is gradually increasing the dose without any sensible effect on the stomach or bladder. She had a mucous discharge

from the vagina, and complains of some soreness there, but there was no laceration of the vagina at the time of delivery. I am inclined to believe that the mucous discharge is from the uterus, and not from the vagina. At this time, December, she has so far recovered that she has considerable sensation in her bladder and rectum, though she has not perfect command over her urine and fæces.—*Op. cit.*

CASE OF PROLAPSUS RECTI, SUCCESSFULLY TREATED BY EXCISION.

BY J. W. HEUSTIS, M.D. OF ALABAMA.

In the tenth number of this Journal, for February, 1830, I made a few remarks upon the propriety of removing by excision the fallen portion of the rectum, in cases where the prolapsus had become obstinate or permanent. The remarks were founded on the practice of the celebrated Dupuytren, which Dr. Von Ammon of Dresden considers as deserving to be ranked among the most valuable improvements of modern surgery. This operation was said to consist in excising portions from the circumference of the prolapsed bowel, in such a manner as to form a star-shaped wound. The bowel is then replaced, and the cure is completed by the contraction of these incisions in the process of healing, so as to prevent the recurrence of this disease. Two cases were given in support of this operation. The following were some of the remarks then submitted by the writer of this article. "Now the question is, whether the complete removal of the protruded portion by the knife would not be a less painful and more effectual mode of operating than these partial and interrupted incisions. The parts cut would in both instances be the same; and by the complete circular excision, carried round and through the base of the tumour, the wound would be less extensive, and, by the removal of the stricture and the morbid portion, the wound would heal with greater facility." I then related a case, in which this operation had succeeded in the brute creation, since which time I have had an opportunity of performing it upon the human family. The case was that of a child, five or six years of age, in whom the prolapsus had been of two years' standing. It was with difficulty that the protruded portion could be reduced; and when replaced, without considerable pressure, would immediately return to its former prolapsed condition. I therefore determined to remove the diseased, indurated, and protruded portion with the knife. This was easily done, by gently withdrawing the tumour a little with the thumb and fingers of the left hand, and then cutting through the duplicature with a firm stroke of the scalpel. The cut and pendulous extremity was then returned within the sphincter. I saw the child again the next day, when I learned from my student, Mr. Adams, who attended at the operation, that the cut extremity of the bowel had subsequently protruded, and that very considerable hæmorrhage had taken place before it was discovered. The bleeding was, however, easily restrained upon the replacement of the bowel, and, upon the use of cold applications, returned no more. Considerable tenderness and soreness of the bowels took place, and continued for a few days, which was relieved by warm bathing and fomentations, low diet and aperients. In about ten days the child had recovered from the operation, and has since remained entirely well, and perfectly relieved from this disagreeable complaint.—*Op. cit.*

PHYSIOLOGY OF THE HUMAN VOICE.

BY SIR CHARLES BELL, K.G.H. F.R.S.

(*From the Phil. Trans. of London* 1832.)

On the organs of the Human Voice.

In this essay Sir Charles Bell considers the influence of the windpipe, larynx, glottis, epiglottis, and pha-

rynx, in contributing to the formation of the sound which constitutes the human voice, and explains, with his wonted ingenuity and striking powers of illustration, the respective part which each performs in this necessary function. Sir Chas. Bell strenuously denies that the *trachea* has any influence on the voice; and, in opposition to Portal, who believes that its transverse muscular fibres, by which its area is diminished and its diameter is lessened, give force to the breath or speaking, contends that the chief use of these muscular fibres is to promote the expectoration of mucous and other fluids, because these fibres are wanting in birds which have very strong voices. The chief use of the trachea, he argues, in voice is to act as a *porte-vent*, or air tube; and its range in this respect is limited to the spot at which it is covered by the thyroid gland, which being soft and spongy, and compressed by the sterno-thyroid and sterno-hyoid muscles, suffocates or stops the sounds, so that the vocal organ of the human subject is compressed between this part of the windpipe and the throat. In short, Sir C. Bell attributes to the thyroid gland the functions of a *damper*, which stops or interrupts the progress of the sonorous vibration below it; and this consideration, he maintains, is illustrated by the effects of the elevation and depression of the larynx, the first of which lengthening the tube, produces the high notes, while the second, by which it is shortened, produces the graver sounds.

Sir Charles then gives very nearly the ordinary views on the function of the *glottis*, which is well known to perform the duty not only of regulating the admission and expulsion of air from the windpipe and bronchial tubes, but that of forming laryngeal or audible voice. He thinks, however, that the *sacculus laryngis* or ventricle of the larynx, must have considerable influence on sound, because one of its effects is to withhold the inferior ligament from the side of the tube, and to give its vibrations free scope, and because in several of the lower animals, for instance the howling ape (*Simia Belzebub, Simia seniculus?*), the cells are particularly spacious and ample. There is little doubt that these powerful sounds, by which, till sunrise, these animals cause the American forests to re-echo, are produced in this manner. From the anatomical description given by Humboldt, who dissected them, this is placed beyond doubt.

Much of our knowledge on the motions of the human glottis, however, being conjectural, Sir C. Bell avails himself of the effects of wounds to determine them. From these it results, that at every inspiration the glottis is dilated, and that every audible sound is accompanied with a motion of the glottis as well as of the lips and teeth.

Besides these parts, however, the pharynx, the palatine *velum*, and the epiglottis, contribute powerfully to the formation and modification of the sounds of the human voice. Though the laryngeal sounds are formed by the glottis, their *timbre*, distinctness, and intensity, are much influenced by the pharynx and the palatine *velum*. In a man, in whom the bones of the upper part of the jaw were destroyed so completely that it was possible to see the motions of this curtain, Sir C. Bell observed that it was in constant motion during speech, and that when the patient pronounced the explosive letters, the *velum* rose convex, so as to shut the posterior nasal openings, and interrupt the ascent of the breath in that direction, and as the lips were parted, or the tongue separated from the teeth or palate, it recoiled forcibly.

"In speaking, much of the sound, as of the vowels and diphthongs, is the uninterrupted issue of the vocalised breath, modulated by the passages, and differently directed, but not checked or interrupted. The consonants are the same sounds checked by the tongue, lips, and teeth. At the moment of this interruption, the pharynx being distended is prepared to give an appulse by its muscular action, exactly in time with the parting lips.

"If we grasp the throat while speaking, so that the fingers embrace the bag of the pharynx, we shall feel that each articulate sound is attended with an action of the pharynx, and preceding each explosive letter we shall be sensible of a distension of the throat. By close attention to the act of breathing, we perceive that while the distended chest falls gradually and uniformly, the bag of the pharynx is alternately distended and impressed in correspondence with the articulated sounds."

From these facts and considerations Sir Charles Bell maintains, that the pharynx and *velum* are most important organs in producing what he denominates the *appulse* of the breath in speaking, that without its action consonants could not have been uttered, and must have been mutes, and that the same part has the chief power in modulation and accent.

There is little doubt that the pharynx and velum are essentially necessary to the formation of the guttural consonants K, G, and KH, or CH, or GH; and, according to Sir Charles Bell, M requires the sound to ascend into the nasal cavities by means of the elevation of the *velum*. *Edinburgh Med. and Surg. Journal, April,* 1833.

DR. GRANVILLE'S GRAPHIC ILLUSTRATIONS OF ABORTION.

WE mentioned in our number last week that Dr. Granville had circulated the prospectus of a work, to be published by subscription, containing illustrations of abortion, and the diseases of menstruation, with anatomical and physiological remarks. We have now had an opportunity of seeing the work, and have to speak of it in the highest possible terms, as a very valuable addition to obstetric science. It contains a series of highly finished and beautifully executed drawings, which serve to explain, and to illustrate some of the most important points in "morbid embryology;" these delineations are coloured with the nicest accuracy and fidelity, and reflect the highest credit on the artist. They also serve as illustrations to a work which Dr. Granville announces that he has been preparing for several years, and which will very shortly appear. He has, however, rendered the present work complete by a thorough explanation of his views on physiological questions, and on human generation. He has in a series of 102 propositions laid down the general bases of the laws and phenomena attendant upon intra-uterine existence up to the fifth month, as far as they illustrate abortion. He has succeeded admirably in giving clear and accurate information, and condensing a vast deal of most important knowledge in concise and scientific language. The plates commence with specimens of very early miscarriages; the ovulum is displayed in various states, at different periods after menstruation had ceased, and remarks are given upon them. The next plates contain specimens of miscarriage between two and three months; the fourth and fifth plates between the third and fourth month; the sixth between four and five months; the seventh at five months. Four plates are devoted to specimens of aberrant fœtal gestation; the two last plates illustrate dysmenorrhoic organisations, and polymenorrhoic stratifications. All the specimens given are clear and well defined, and are the evident result of industry and unwearied attention. We sincerely wish the author may reap the reward he richly deserves. We consider the work most important, and worthy to rank with the splendid and valuable labours of Hunter and of Denman.

French Medicine.

CHLORIDE OF LIME AGAINST THE ITCH.

IN the Journal de Chimie Medicale, de Pharmacie et de Toxicologie, for May, M. Derheims, an apothecary

at St. Omers, relates eight cases of psora cured in a few days with the chloride of lime. He used a lotion in cases of adults, composed of ℥j to ℥ij of the chloride to 0j of water, and for children ℥j to 0j. This was applied by friction to the affected parts three or four times a-day, and a cure was generally effected in eight days. M. Cluzel, of Hessingue, employed it in 1810.

ROYAL INSTITUTE OF FRANCE.

Mr. Robert Brown has been elected a foreign member in the place of the illustrious Scarpa.

Sir Astley Cooper was elected a corresponding member for the vacancy caused by the death of M. Delpech.

M. Gamard read an account of a case in which lead balls were retained in the intestinal canal, for the removal of which, in five days, three pounds six ounces and four drachms of quick silver were taken. He also purged the patient with croton oil, which caused the expulsion of the mercury, and a black powder.

May 13th.—M. Delau read a paper on the efficacy of a cataplasm of the pulp of the root of belladonna in cases of facial neuralgia, which he had employed in many instances with success.—*Journal Universel et Hebdomadaire, May.*

M. Fabré-Palapart read a memoir on electrico-galvanic currents in the cure of diseases, which is almost considered a panacea in disorganisations and acute inflammation. A commission was appointed to examine it.—*Op. cit.*

MEDICO-BOTANICAL SOCIETY.

Tuesday, June 11th.

Humphrey Gibbs, Esq. in the chair.—A paper was read by Dr. Sigmond, addressed to him as secretary of the Society, by a gentleman, detailing the advantages to be derived from the employment of the essential oil of lemon in inflammations of the eyes. He illustrated it by the relation of several cases in which it had been successfully employed, they were cases in which the stimulating treatment had been found to answer; the first contact of the oil with the eye produces severe pain, which speedily subsides, and this is followed by a remission of the severer symptoms. Various opportunities had been afforded to the author at the Eye Institution of trying the remedy, and the success that attended it fully warranted him in offering it to the profession as a serviceable article of the materia medica. A paper was also read on the acacia of Southern Africa. The publication of the Transactions of the Society was announced.—The last meeting for the session takes place on the 25th of June.

NOTICE OF THREE CASES OF THE EFFICACY OF THE BEULAH SPA WATER AT NORWOOD.

BY T. HUME WEATHERHEAD, M.D.
Member of the Royal College of Physicians.

Miss Clara E. æt. 11, had a scrofulous ulcer over the metatarsus of the right foot for more than eighteen months, and another of a similar character between the index finger and thumb of the right hand. Her general health at the same time was much deranged, her complexion being sickly, her appetite bad, and the functions of her bowels much disordered—now lax, now constipated, and the evacuations always highly offensive.

She began a course of the waters in alterative doses, intervening with this a dose once or twice a week, in quantity sufficient to produce a full aperient effect. In a short time their beneficial virtues became obvious; and as the young lady's health improved the ulcers healed *pari passu.*

In cutaneous complaints, which are so often traceable to disorder of *primæ viæ*, I have witnessed their great efficacy in two late instances;—one of psoriasis palmaria of seven years'

standing, in which a great variety of means had been tried without avail, but which a course of these waters has completely cured; the other, of lepra vulgaris, affecting the arms and thighs chiefly, which always returns on any excess in the use of vinous or spirituous liquors, and is as certainly removed by taking the waters for ten days or a fortnight.

I may add, that I find the dose requisite to act on the bowels to vary considerably with the circumstances of the case.

Beulah Spa, Norwood,
10th June, 1833.

THE

London Medical & Surgical Journal.

Saturday, June 15, 1833.

MEDICAL LEGISLATION.

THERE is something truly absurd in our mode of legislation in this country. No subject is deeply inquired into and discussed before an Act of Parliament is obtained. One or two people concoct a number of strange resolutions, they are all strung together, and straightway carried to one or other of the Houses; two or three more inquisitive people than their neighbours look at the different paragraphs, and then add something wise of their own. The collective wisdom of the nation imagines that the original concoctors and their superintending friends are mighty men, and understand what they talk about; they pass their resolutions, and they become the law of the land; in a few short weeks, however, it is discovered that the clauses do not embrace the most important points in question; that every thing is as if nothing had been done, and, lo, a new set of rules is to be laid down. A bill is brought in "to amend so much of a bill as was passed at the last parliament," or to repeal the two or three dozen others which have been passed exactly in the same way that the new one is intended to be, namely, to set aside that which was considered very proper a short time since, and thus we go on. We legislate that hackney coachmen should have check strings in their hands, and this very probably is to be found in the midst of an act that authorises that the streets should be Macadamised, and then we find that it becomes necessary to repeal this act, and away go the check-strings. We are now about to have some new enactments to amend a certain portion of the Apothecaries' Act, but instead of taking a general view of the state of the medical profession, some little alterations are to be made, which by no means satisfy the wants or the wishes of the public. All that is to be done, is to allow a Scotch graduate to act as an apothecary whilst we forbid the English surgeon, who undergoes nearly the same line of education, to enjoy the same advantages. We are legislators as usual for "an interest." The clever, sharp-sighted, wary Scotchman wants a little share of the good things the English apothecary has kept to himself, he puts on a bold front, asks and obtains it, whilst our English graduates and surgeons, modest, diffident, and quiet, fear to obtrude themselves, and lose that to which they have a greater claim. The surgeons of the army and

the navy have certainly as great a right to be allowed to practice generally as the holder of a diploma, who has never been intrusted with a case, and who comes freshly impregnated with Edinburgh theories, and certainly the graduates of the English and of the Irish Universities ought to be allowed, if they please, to become apothecaries. This, however, would, we find, be very displeasing to the Royal College of Physicians, who would feel it to be a mortal disgrace if any of those who had once enjoyed the high terrestrial dignity of Fellows of the College could condescend to mix together rhubarb and jalap, or drop a liquid from one phial into another. All their phials of wrath have been poured upon our heads for venturing, in our former numbers, to drop a gentle hint, that some of that august and learned body might be suspected of being enabled to make a pill, or compound that useful assistant

" —— which the learned all declare
Gives colic ease, and makes the ladies fair;"

they, however, have the delightful recollection, that they excluded from their number a man of learning, experience, and talent, the celebrated Mason Good, and the practical veteran physician, Hooper, from their Æsculapian council, because they both had known the value of drugs, from having personally handled them, and had not disdained to soil their fingers with preparing them, when they found it necessary for their subsistence.

The partial legislation which we have alluded to, is too disgraceful for our mighty country, where "conflicting interests" ought not to be encouraged, where monopolies ought to be consigned to oblivion, and where musty charters ought to be committed to the flames, or be allowed to be preyed upon by the worms, who are the only living beings that could by possibility be benefited in any way by them.

No act should be passed through parliament this session; the gentlemen in St. Stephen's chapel have quite enough to do, to last them through the dog days, and in the meantime, let all the bearings of the questions that have arisen in the medical profession be well weighed. Let us have one intelligible act, that will put all the members of the science in possession of the knowledge of their own privileges, and those of their brethren. Simplicity and comprehension must be studied; as we are at present journeying on, we are completely in the dark, we are stumbling one over the other, and the legislative bodies gain no respect for the unsatisfactory manner in which they watch over the interests of the community.

THE NEW APOTHECARIES' ACT.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—I was greatly surprised on perusing the new Apothecaries' Act to observe that it confers privileges on the Scotch graduates and surgeons, which it withholds from those of England and Ireland. One could scarcely think that a reformed parliament would sanction such legislation as this. I cannot see the reason or justice of this preference,

and I am loth to ascribe it to the nationality of the Lord Chancellor or the Lord Advocate. I trust that the Act will be a general one. I was astonished to read the multifarious false statements in the public papers respecting the education of the graduates and surgeons of Scotland, by which it appeared that the English apothecaries spent five years in acquiring professional knowledge, and were examined twice, while the former passed but four years, and were examined only once. The fact is, that the general practitioner until lately attended lectures for six months, and even now for double that period only, while the Scotch graduate attends lectures for four years, and the surgeon for three. The graduates of Oxford, Cambridge, and Dublin, those qualified at the School of Medicine established by Act of Parliament in Ireland, and the members of the Royal Colleges of Surgeons in London and Dublin are equally educated as their contemporaries in North Britain, and much better than the licentiates of the Hall, but seem to be forgotten by the framers of the new Apothecaries' Act. This cannot, and shall not be.—It is contrary to reason, justice, and common sense.

I am, gentlemen, yours,
M. B., M.R.C.S.L.

June 10th, 1833.

A SHORT ACCOUNT OF THE EARLY HISTORY OF CHEMISTRY, OR, AS IT WAS CALLED BY THE ARABIANS, ALCHEMY.

Abridged from the Encyclopædia Britannica.

THE word *chemistry* (χημεια) first occurs in Suidas, a Greek writer, who is supposed to have lived in the eleventh century, and to have written his lexicon during the reign of Alexius Comnenus. The term, indeed, is said to occur in various Greek manuscripts, deposited in the libraries of Rome, Venice, and Paris, and written between the fifth and eleventh centuries; nothing determinate can be said of these manuscripts, their date is not known, nor have they ever been printed.

Chemistry, as understood by this author (Suidas), was the *art of preparing gold and silver*. As early as the Argonautic expedition, in the opinion of Suidas, was *chemistry*, or the art of making gold, studied and known.

This opinion of the antiquity of chemistry was zealously supported by Olaus Borrichius, and almost the whole body of alchemistical writers. The general opinion among them was, that chemistry originated in Egypt, and the honour of the invention has been unanimously conferred on Hermes Trismegistus. He is supposed by some to be the same person with Chanaan, the son of Ham, whose son Mizraim first occupied and peopled Egypt. Plutarch informs us that Egypt was sometimes called *chemia*. It is quite impossible to decide whether chemistry was called after Chanaan, or whether it originated with him or Mizraim, the son of the Hermes of the Greeks; but to Hermes is assigned the invention of *chemistry*, or the art of making gold, by the unanimous consent of adepts.

The writings of Geber (if we admit them to be genuine), constitute the oldest chemical tracts in existence, and deserve to be particularly noticed, because they make us acquainted with the state of the science during the eighth century. His works were translated into Latin as early as the year 1529, and an English translation, by Richard Russel, was published in the year 1678, they consisted of four tracts. The object of his works are to teach the method of making the philosopher's stone, which he usually distinguishes by the name of *medicine of the third class*. From the clearness with which they are written, we can understand the nature of the substances that he used, the processes which he followed, and the products that he obtained. We shall give the following summary of his opinions, and of the facts which he knew. He

considered all the metals as compounds of mercury and sulphur; he speaks of the ancients having adopted this opinion before him. He was acquainted with gold, silver, copper, iron, tin, and lead. He distinguishes them by the names of *Sol, Luna, Venus, Mars, Jupiter,* and *Saturn.* Gold and silver he considered as perfect metals; the other four imperfect. The difference he considered as partly owing to the proportions of mercury and sulphur in each, and partly upon the purity or impurity of the mercury and sulphur which enter into the composition of each. In his book on furnaces, he gives a description of a furnace proper for calcining metals, and he seemed to be perfectly familiar with the calcining or oxydising of iron, copper, tin, and lead, also mercury and arsenic. He was in the habit of distilling by surrounding his aludel with hot ashes, to prevent it from being broken. The description of the distillation of many bodies occurs in his work, but there is no evidence that he was acquainted with ardent spirits. He mentions the word spirit sometimes, but he applied it to volatile bodies, especially to sulphur and white arsenic, and in his opinion, these substances were very similar. The method of distilling *per descensum,* as is practised in the smelting of zinc, was also known to him. He was in the habit of dissolving salts in water and acetic acid, and even the metals in different menstrua; in no part of his work, does he give an account of these menstrua, but from the description of the solvents that he employed, it is easy to perceive what his solvents must have been, viz. the mineral acids which were known to him, and are not mentioned by any previous writer; whether he was the discoverer of these acids cannot be known; indeed, his object appears to have been to slur over all particulars concerning them. In all the earlier chemists, this mystery and affectation of secrecy has deprived them of that reputation and value which they would have gained, if they had made known their discoveries in a plain and intelligible manner. The mode of purifying liquids by filtration, and of separating precipitates from liquids by the same means, was known to him, he called the process distillation through a filter. In fact, nearly all the chemical processes known in the eighteenth century, were familiar to Geber.

The chemical preparations known to Geber were, *common salt, potash,* and *soda.* Carbonate of soda he calls *sagimen vitrii; saltpetre* was known to him. *Sal ammoniac* appears to have been quite common in his time; the same remark applies to *alum,* of which he mentions three kinds, *icy alum, Jamenous alum,* and *feather alum. Sulphate of iron,* or *copperas,* in the state of crystals, was known to him; also *borax. Sulphuric acid* was obtained by him by distilling alum by a strong heat. *Nitric acid* was known also to him; he was in the habit of dissolving sal ammoniac in nitric acid, and employing the solution, which was the *aqua regia* of the old chemists, as a solvent for gold. There can be no doubt but that he was acquainted with *corrosive sublimate, cinnabar, red oxide of mercury, sulphate of copper, black oxide of copper, metallic arsenic,* and *red oxide of iron.* Such is the short summary of facts known to Geber, as far as they can be deduced from his writings: he is the only Arabic writer who deserves to be noticed.

Between the eighth and tenth centuries, when learning first began to dawn in Spain, when those splendid libraries and academies were formed under Mohammedans, which threw such lustre upon the prince who protected the sciences and governed with so much mildness, that Spain never was so happy under any Christian prince: when we reflect upon the prodigious number of volumes collected in that famous library at Cordova, 280,000 volumes, it appears incredible how human labour could have effected it. It was to these celebrated seats of learning that all the curious, who

wished to distinguish themselves, flocked from all parts of Europe. Chemistry, or alchemy as the Arabians called it, became gradually known to Europe. As a natural consequence writers were few in number, but about the fourteenth century they became very numerous. We shall notice a few of the most remarkable votaries of alchemy, by which was understood the art of making silver and gold out of the baser metals.

The first who deserves notice is Albert Groot, or Albertus Magnus as he is usually styled, a German, born in 1193 at Ballstaedt, and died in the year 1282. He studied the sciences at Padua, afterwards at Cologne, and finally at Paris. He was acquainted with all the sciences of his time. He was at once a theologian, a physician, and a man of the world. He was an astronomer and an alchemist, and even dipped into magic and necromancy. He wrote seven treatises on different branches of chemistry, which still remain. He believed in the philosopher's stone, as it appears from his book De Philosophorum Lapide; he gives the process for making the philosopher's stone, but it is not intelligible, this is rather remarkable, for all his writings on chemical subjects are remarkable for their intelligible style. It is this circumstance which renders the writings of chemists on this subject so very obscure, and of so little value. Had they related their processes with plainness and simplicity we should have known the extent of their knowledge, and allowed the credit due to their ingenuity and discoveries.

Soon after Albertus lived Roger Bacon, by far the most illustrious, the best informed, and most philosophical of the alchemists, born 1214 in the county of Somerset. He studied at Oxford and Paris, after that he became friar, devoting himself to philosophical studies. His discoveries, notwithstanding the great pains he took to conceal them, made so much noise, that he was accused of magic, in consequence of which he was thrown into prison; he was a great linguist, being familiar with Latin, Greek, Hebrew, and Arabic, and that he had perused the most important books at that time existing in all these languages; he was well versed in the theory and practice of perspective. The camera obscura, burning glasses, and the powers of the telescope were well known to him; he was likewise an able physician; as a chemist it is very clear he was acquainted with the mode of preparing gunpowder, and with the violence and noise with which it burns. But there is no evidence that he was aware of the use to which it might be applied in propelling bullets with such velocity and fatality from a gun-barrel. It is not unlikely that Bacon, being acquainted with the Arabic, derived his knowledge of gunpowder from some eastern treatise *.

Raymond Lully was a friend of Bacon, a very voluminous writer, and acquired great reputation as an alchemist, born in Maynec 1235; his father was seneschal to King James I. of Anjou; devoting himself to the sciences he acquired a knowledge of Latin and Arabic; he studied at Paris, where the degree of Doctor was conferred upon him; he afterwards travelled through every country wherever learning had made any progress; and died in 1315, and was buried in Majorca. The following epitaph is given by Olaus Borrichius, as engraven on his tomb:—

Raymundus Lulli, cujus pia dogmata nulli
Sunt odiosa viro, jacet hic in marmore miro
Hic M. et CC. cum P. cœpit sine sensibus esse.

The writings of Raymond Lully are very obscure, and are incomprehensible. In addition to what Geber knew, he was acquainted with spirits of wine, which he names *aqua vitæ ardua*, and *argentum vivum vegetabile*. He was also acquainted with *ammonia*, as also cupellated silver,

* There is evidence of gunpowder being very familiar to the Chinese, but it was used by them merely for fire-works; they seem to have been in a similar state of ignorance with Roger Bacon as to its application.

and first obtained rosemary oil by distilling the plant with water.

Arnoldus de Villanova, born at Villeneuve, in Provence, about 1240, is said by some writers not to have been destitute of chemical knowledge; educated under John Casamilan, at Barcelona, a celebrated professor of medicine; visited Paris, and travelled through Italy; was skilled in the sciences of his time, and was a proficient in Greek, Hebrew, and Arabic; he died in 1313. His works are very voluminous, but he does not appear to have added much to what was already known.

John Isaac Hollandus, and a countryman of the same name, about the same time, wrote many treatises on chemistry, remarkable for clearness and precision.

Basil Valentine, born about 1394, the most celebrated of the alchemists. He devoted a great deal of his time to chemistry; and it is to him that we are indebted for the discovery of that valuable medicine *antimony*.

These are a few of the most celebrated of the alchemists; there are a great many more who have written on this subject, but it would only be following up a long catalogue of names which have been deservedly consigned to oblivion. Although the celebrated alchemists just mentioned have described the processes, yet they very seldom affirm that they were in possession of the grand arcanum:—it was usually described as a red powder having a peculiar smell.

There is a story told of an Italian, in Mangetus's *Bibliotheca Chemica*, who came to Geneva; and, after staying about a fortnight, ran short of money; and having got every thing ready, he put tin into one crucible, and quicksilver into another. The tin was melted in the fire, and the mercury heated; it was then poured into the melted tin, and at the same time a red powder inclosed in wax was added; an agitation took place, and a great deal of smoke was exhaled from the crucible, but this speedily subsided, and the whole having been poured out formed six heavy ingots, having the colour of gold. The goldsmith was called in by the Italian and requested to examine the smallest of those ingots having the colour of gold. After having tried it with aqua fortis, exposed the metal on the cupel with lead, and fused it with antimony, it sustained no loss; and, full of admiration, he exclaimed he had never worked on gold so perfectly pure. This story is given by Mangetus on the authority of M. Eros, a clergyman, who was an eye-witness to the transaction, and at the same time a skilful physician and alchemist.

Notwithstanding the absurdity of their pursuits, the alchemists contributed something towards the progress of chemistry. But the person who first cultivated chemistry, as it was originally intended by the Arabians, for the preparation and improvement of medicine, and who must be considered as the author of its subsequent popularity and success, was Paracelsus. I shall give a short account of him.

Philippus Aureolus Theophrastus Paracelsus Bombast ab Hohenheim was born at Einsideln, two German miles from Zurich. After receiving the first rudiments of his education he became a wandering scholar; with poor students it was the custom at that time. At the age of thirty-three the great number of fortunate cures that he had performed rendered him an object of admiration to the people of Germany; he cured eighteen persons whose diseases had been aggravated by the practitioners devoted to the system of Galen. Among others, he cured Philip, Margrave of Baden, of a dysentery, who promised him a great reward, but did not keep his promise, and treated him very indignantly. This cure, however, added very much to his celebrity. He was appointed Professor of Physic and Surgery in the University of Basil. He introduced the custom of lecturing in the native language, as practised in the present day. This circumstance drew an immense crowd of idle, enthusiastic, and credulous hearers.

He began his public career by publicly burning the works of Galen and Avicenna, assuring his hearers, that the strings of his shoes possessed more knowledge than these two celebrated physicians. But his popularity was short lived, owing to the irregular and immoral life that he led. He seldom entered his class room, or visited a patient, without being intoxicated. He was obliged to fly from Basil, in consequence of having threatened the magistrate of Basil, who decided a case against him; by this time his celebrity as a professor was completely destroyed. In 1531 he was at St. Gollen, in 1535 at Pfeffersbode, and in 1536 at Augsburg. After this he went into Moravia, where he failed to cure John de Leippa of the gout, also the lady of Zerotin; here his remedies produced no fewer than twenty-four epileptic fits in one day. In 1540 he was at Mindelheim, and in 1541 at Strasburg, where he died, in St. Stephen's Hospital, in the forty-eighth year of his age.

The style of this author is execrable, filled with new words of his own coining, and of mysticisms, either introduced to excite the admiration of the ignorant, or else he is the dupe of his own impostures. That he was in possession of the philosopher's stone, or of a medicine capable of prolonging life to an indefinite period, as he all all along asserted, he could not himself believe.

He always, when an opportunity occurs, gives great importance to chemical medicines, and speaks with great coarseness of the Galenical remedies. It was this circumstance that drew the attention of apothecaries and physicians to chemical remedies; and here first began the rapid advance in chemistry as a science. The reputation of Paracelsus does not depend upon any discoveries that he made in the science, but upon the importance that he attached to the knowledge of it in medical education.

This short account of early chemical knowledge is brought down to the time of Van Helmont, who gave a decided turn to chemical and medical knowledge, and to whom great merit is due for his laborious exertions in these sciences: since his time it has been gradually more and more esteemed by professional men as the science advanced.

THE FACTORY COMMISSIONERS.

We take much credit to ourselves for having shown up this humbug commission, which was a twin brother to the Central Cholera Board, of eternal celebrity. Events have now transpired, such as led the Chancellor of the Exchequer to denounce the conduct of the new commissioners, which was only a reiteration of the condemnation they received in every place they visited. It is to be hoped that the government will be somewhat more cautious in future in lavishing the public money upon useless commissions; and that they will discontinue to inherit this heir-loom of toryism during the remainder of their career. We are happy to observe, that the "best possible public instructors" are awake, though the great schoolmaster seems to be asleep.

Reviews.

A Further Examination of the Principles of Gout, with Observations on the Use and Abuse of Colchicum. By Sir Charles Scudamore, M. D., F. R. S. The Second Edition, considerably altered and enlarged. 8vo. pp. 127. Longman and Co. 1833.

The author of this work is well known to the profession for his contributions to science, and more especially since his publication on Gout and Rheumatism. He now offers the result of his experience during the last eight years, and his chief object is to inquire into the real merits of colchicum as a remedy for gout. He

warns the profession against the empirical employment of the strong preparations of this medicine, and argues that these must be varied according to constitution. He asserts there are other remedies equally successful, and that the radical treatment of the disease is wholly to be found in means of a different nature. These means are such as improve the tone of the digestive organs.

Our author gives a brief description of various modes of treating gout, from the earliest period of medicine to the present time. He considers the prevailing treatment of gout extremely injurious, and cites numerous cases in which colchicum removed the disease, and rendered the patients much more liable to a return of it. "I affirm," says Sir Charles, "that every troublesome case of gout is more or less connected with and depending upon a wrong action of the liver, and a faulty condition of the bowels, and that this state of disorder and gout stand in the relation of cause and effect." He recommends an extract made from the inspissated juice of the roots of colchicum, and prepared by that able analytical chemist, Mr. Battley, in preference to any of the officinal preparations of the medicine. Dr. Hue has found it most efficacious in rheumatism. The dose is a grain every four or six hours. It generally cured acute rheumatism in twenty or thirty-six hours. Mr. Battley has subsequently prepared a fluid, which he calls liquor colchici, and which he assures us is more efficacious than the extract. He has also prepared several medicines in this way, which are more unsophisticated than the pharmacopœial preparations, and will most probably supersede a vast number of them.

Sir Charles formerly preferred the acetum colchici combined with neutralised lemon-juice and carbonate or sulphate of soda, and when there was active inflammatory action he added tartarised antimony. He has since found the extract of the inspissated juice the most certain and efficacious form of the medicine. In cases, in which the abuse of the specific or idiosyncrasy preclude the employment of the favourite remedy, opiates, sudorifics, purgatives, and alteratives, with a proper regimen, have effected a cure. Our author comments upon the general and local treatment usually employed, and concludes with remarks on diets, regimen, and preventive remedies.

We find nothing new in this work with the exception already described; but those who do not possess the large treatise of the author, will peruse this little production with advantage. The author has certainly inculcated very sound practical hints, well worthy of adoption.

A Treatise on the Venereal Disease and its Varieties. By WILLIAM WALLACE, M.R.I.A. pp. 382. London, Burgess and Hill.

THE writer of this volume is already advantageously known to the profession as the author of an Inquiry respecting the Action of Moxa, of Researches respecting the Medical Powers of Chlorine, and some observations on sulphureous fumigations in rheumatism and diseases of the skin, and therefore we commenced the perusal of the present volume with every anticipation of receiving instruction and fresh hints upon a subject of deep importance, nor have we been disappointed. The opportunities afforded in the infirmaries in Dublin are very great, and Mr. Wallace has availed himself of them. He has looked to the operations of nature, and has avoided following the dicta of any guide without deep reflection and observation. Hence it is, that there is much originality in the mode of discussing the subject, although, from the numerous writers who have preceded him, we might imagine the field was exhausted. Two questions as to the causes of venereal diseases, are very well handled. Are venereal diseases produced by a specific cause or morbid poison? or do they arise from common causes of irritation?

Secondly, are venereal diseases produced by one poison or a plurality of poisons? There is an excellent enumeration of the morbid states or actions produced by the direct application of the venereal poison, and also a classification of them. We can recommend the volume as a well written production of an intelligent, enlightened, and practical man.

Principles and Illustrations of Morbid Anatomy. By J. HOPE, M.D. &c. Part V.

THIS is another proof of the perseverance and talent of Dr. Hope. This part illustrates the diseases to which the liver is subjected, and is a continuation of those former numbers of which we have spoken in high and well deserved praise. All the maladies which are discussed are of serious importance, and demand the attention of every medical man. The fifth chapter, which is commenced in this part, embraces some excellent remarks on cancerous tubera. He observes, "That cancer in disseminated masses has so great a predilection for the liver, that, according to Cruveilheir, of twenty cases affecting the system in general, nineteen are found in this viscus. He regards it as 'perhaps the most frequent disease of the liver.' According to my observation, the *nutmeg* and even the *granulated* degenerations are more frequent, but cancer is beyond comparison the most formidable malady, being always fatal, and scarcely less obscure in its diagnosis than unsusceptible of alleviation by any remedial agents with which we are acquainted." He then proceeds to consider the numerous diversities with respect to the form, number, size, situation, consistence, and texture of tubera, and illustrates them by accurate and forcible delineations, which convey to the eye just impressions of the disease.

The next point which he has discussed embraces some correct and useful knowledge on abscesses of the liver. Some short observations are then given on hepatitis, on congestion, on hypertrophy, atrophy, induration, and softening; on adipose and chloresterine degeneration; on melanosis of the liver; and on serous cysts and hydatids.

The second division commences with diseases of the biliary apparatus. Some of these subjects are perhaps too concisely treated; but most probably the learned author feels that his work would become too much extended were he to expatiate as much as his abilities and practical knowledge would allow him; his wish for condensation sometimes therefore renders him more sparing of information than is desirable.

Table of Chemical Equivalents and Notation. By W. T. BRANDE, F.R.S. pp. 19. Renshaw and Rush.

THIS is a manual designed for the pupils at the Royal Institution, and contains the equivalents and symbols employed at the chemical school there by the professors; and of course to the students of the class of the two great chemical teachers, Brande and Farraday, it is very important. Whether the same plan be adopted in the schools of other professors or not, is a question we cannot venture to solve. The preface fully explains the general principles, proves the simplicity of the atomic theory, and shows its importance in analytical research.

Sketches from the Case-Book to illustrate the Influence of the Mind on the Body, with the Treatment on some of the most important Brain and Nervous Disturbances, which arise from this Influence. By R. FLETCHER, Surgeon to the Gloucester General Hospital. London, 1833. 8vo. pp. 391. Longman and Co.

THE author of this work is favourably known to the profession by this valuable publication on clinical sur-

gery, and in his present volume presents us with much interesting information. He justly remarks, that every one admits the power of the mind over the body, but he is of opinion, "that if individual examples were given of the kind and varieties of the misery capable of producing the mischief, the reader might be struck more forcibly and usefully by a detail of these melancholy particulars than by a simple belief in the existence of such an evil, which alone can have no practical good effect, or at all prepare us to take our turn in breasting the stormy periods of human life." He gives illustrations which may warn afflicted persons against the destructive habit of painful meditation on their sorrows or misfortunes.

He describes the influence of the brain as the agent of the mind—effects of mental irritation on health——shocks—an unhappy life—forms of mental suffering, as shown on the body—mental indigestion and hypochondriasis — irritable brain—excessive sensibility and irritability—general treatment of ill health—diet and medicine—effects of the mind on the fate of great operations, illustrated by thirty cases.

Our readers must observe in this table of contents many topics of deep interest to the medical practitioner; and we can assure them that they are ably considered by the author. We shall give ample proof of this on some future occasion. The work will be perused with pleasure both by the general and medical reader.

The Demonstrator; being an Explanation of the Dissector of the Human Body. By R. Dewey Forster, Surgeon. In sixteen Parts. Part I. London: Burgess and Hill. 1833.

This work is calculated to facilitate the labours of the anatomical student, and richly deserves encouragement. The author styles his folio plates the Dissector, and their description the Demonstrator. He describes the nature of both as follows:—

"This work is confined to the Descriptive Anatomy of the Human Body, and as it attempts to elucidate that branch of knowledge by a novel method, will of course require some explanation of the plan by which it endeavours to attain its object.

"All terms, anatomical, surgical, or scientific, here used, are to be received in the common acceptations, as deduced from the works of the most approved authors; and in the department of General Anatomy, the works in which their explication may be found are referred to in notes, and sometimes the very page of the author is mentioned; this is done to confine the Demonstrator to one thin volume, clear and comprehensive.

"The several stages into which each part of the Dissector is divided are not always those which occur in actual dissection, for, although it may reasonably be said that there is only one stage in a dissection, still there are times when it is necessary to discontinue the examination of parts, until those which obstruct our view are cut off, and each of these is termed a stage; since the superjacent layer being removed, the next layer or stage is developed.

"As frequent reference to superjacent, subjacent, or contiguous parts is unavoidable, and, that the particular part or spot referred to may be understood, the individual organs or parts, whether arteries, veins, nerves, muscles, &c. &c. are numbered in small arabic figures, thus 1, 2, 3, &c., each series of such figures extending from the beginning to the end of each part of the work; and the stage in which the individual number is found being given in arabic numerals, thus (1st, 2nd,) the reader of the Demonstrator may instantly turn to the stage of the Dissector, and become sure of the exact organ or part of an organ mentioned; these figures of reference being placed within parentheses, to distinguish them

from those used to direct us to the individual organ under demonstration, thus,

"1. SUPINATOR RADII LONGIOR, is to point out the supinator, which is the part particularly the object of description, but in explaining the origin of that muscle we find, (6th 78, *a*, *b*,) which directs us to the '6th' stage, at figure the ('78') being that attached to the os humeri, or bone of the arm, and the letters, ('*a*, *b*,') referring to the particular parts of the surface of that bone.

"Thus we see that the *italic* letters *a*, *b*, point to a particular *part* of an organ; the *arabic figures*, 1, 2, to *an* organ; the *arabic numerals*, (1st, 2nd,) to a *stage* in the dissection of a part of the *body;* and the roman numerals, I, II, V, &c., to another part of the *work*, rendering it impossible to misconceive the spot to which the author especially refers, and this it is obvious is very important in anatomy.

"The author may add, that the parts *cut through* in the operations of surgery, may be discovered in this work, by forcing fine needles through the paper at the parts of the Dissector where the first incisions are usually made, should the subsequent ones be continued directly forward; and the parts injured by the puncture of a sharp instrument, as swords, &c. may be in the same manner observed.

"It is also to be remarked, that this has lately become a favourite, and indeed a very effective, method of ascertaining the attainments of students in the ground-work of a very honourable and useful profession."

[We strongly recommend it to medical students]

Observations on the Illusions of the Insane, and on the Medico-Legal Question of their Confinement. Translated from the French of M. Esquirol, Physician-in-Chief to the Royal Asylum of Charenton. By WILLIAM LIDDELL, Member of the Royal College of Surgeons, &c. London, 1833. 8vo. pp. 89. Renshaw and Rush.

(*Continued from page* 607.)

"*SECOND Observation.*—M. ———, forty-seven years old, of a neuro-sanguineous temperament, subject to piles, which had discharged for some time, was in the habit of applying leeches to his anus, to relieve a headach from which he suffered. He was happy in his domestic circle, and his business had prospered until the year 1830, from which period he was much harassed to manage his affairs. In December, 1831, after a trifling loss, he grew sorrowful and melancholy; his face was flushed, his eyes became bloodshot, his breathing was difficult, and he shed tears, incessantly repeating that he was lost. On the next and following days he made several attempts to commit suicide, so that they were obliged to cover his apartment with wadding; he wished to strangle himself, tried to swallow his tongue, filled his mouth with his fist, in hopes of suffocating himself, and then refused all nourishment. At the expiration of six days the patient was brought to Paris, and intrusted to my care. From the moment of his arrival all desire to commit suicide vanished, and the patient appeared restored to reason. 'The impression that I received,' said he to me, 'on finding myself transported to a strange house cured me.' In fact, sleep, appetite, and a connected, and sometimes lively conversation, induced the belief that the cure was effected. Three weeks seemed enough for convalescence, when his wife and son came to fetch him. They passed two days at Paris to finish some business there, and then returned to the country. Scarcely had he arrived at his home when he felt himself impelled by the same desires, in consequence of which he returned to Paris, transacted some business whilst he remained there, and appeared perfectly well. On returning to his home again he made fresh attempts to commit suicide,

struck his son, and those who waited upon him, and endangered the life of his wife. Neither the grief of his family, the watch placed over him, nor the pretended authority of those placed about him, could overcome these impulsions. The patient passed several days without food, tied a cord around his sexual organs, and got upon his bed in order to throw himself upon the floor; he tore up his linen to make cords to hang himself, and at last, deceiving the watchfulness of his relations, escaped to throw himself into the river. He was immediately put into a carriage, and accompanied by his wife; but, notwithstanding the strait waistcoat, he left no means untried to kill himself. On arriving at Paris, and being again confined, he became perfectly reasonable, and made no attempt to destroy himself during the six weeks that his second confinement lasted. There was reason to believe his cure effected; if he was asked why he did not overcome his terrible impressions at his own house as he did at Paris, he answered them in an evasive manner, affirming that this time the trial had been long enough, that he was cured, and that he insisted upon returning home. 'Deprived of my wife and son,' said he, 'I am the most unhappy of men, and I cannot live.' 'But if you are so unhappy here, said I to him one day, why do you not try to destroy yourself, as it is very easy to do so?' 'I know not,' he replied, 'but I am cured, and I wish to live.' This patient enjoyed the greatest liberty, and although no apparent precaution was taken to prevent his destroying himself, he never made the least attempt to do so. He afterwards ceased to talk unreasonably; but I was never able to obtain an avowal of the motives which induced him to commit suicide at his own house, whilst he thought no more of it as soon as he came amongst strangers. On returning to his home for the fourth time, although he was able to transact important business, the same phenomena returned with equal violence.

"*Sixth Observation.*—A baker's wife, of a lymphatic temperament, experienced a violent fit of jealousy, which much distressed her, and induced her to watch her husband's steps, who vented his discontent in threats and reproaches. At last this unhappy woman, being unable to bear herself any longer, threw herself out of the window. Her husband ran to pick her up, and bestowed marks of the most attentive kindness on her. 'It is useless,' she often said, 'you have a wife no longer.' She refused every kind of nourishment; and neither the solicitations, tears, nor prayers of her relations, nor those of her husband, who never quitted her room, were able to overcome her resolution. After seven days of total abstinence I was called in; they hid from me the cause of the disease, but I observed that every time her husband approached the bed her face became convulsed. I told the patient that I was about to send her into the country, but that it was necessary for her to take a little nourishment in order to be able to support the journey. A little broth which I offered her was accepted: but, notwithstanding her attempts, she could only swallow a few drops. She tried again the following morning, but expired in the course of the day. Had this woman been removed from her home immediately after the accident, there is little doubt but she would have been restored. How could she desire to live, her distress being continually aggravated by the presence of her husband?

"*Eighth Observation.*—An emigrant, forty-six years old, of a sanguineous temperament, and of a peremptory character, after a long train of misfortunes, was arrested, but soon afterwards restored to his family. This circumstance threw him into despair, followed by an attack of madness, which continued for two months. During his delirium he saw and spoke of nothing but gendarmes, prisons, chains, &c. &c. After

this attack he remained melancholy and hypochondriacal. During the following year, without any fresh provocation, he became suddenly mad, and on the day afterwards was confided to my care. Although the delirium was general, with agitation, he spoke frequently, as during his first attack, of prisons, soldiers, &c. The delirium was evidently influenced by the remembrance of the arrest which had brought on the first attack. Whenever I went near the patient I addressed him in a friendly manner, familiarly offered him my hand, and reverted to the attentions I had paid him the year before. Dissipate your uneasiness, I often said to him, for you may depend upon my care; you are not obliged to remain, as there is nothing to prevent your going out whenever you please. On the fourth day I finished my usual exhortations with these words, hastily spoken,—'Let us take a walk!' The patient wished to follow me without his clothes; but I begged him to dress himself, and we went out. We had scarcely walked a dozen steps when he was able to exchange some coherent phrases with me; and before we returned to the house he had recovered the entire use of his faculties."

THE APOTHECARIES' ACT.

We have heard, on authority upon which we can place perfect reliance, that the privileges intended to be conferred by the Bill for amending the Apothecaries' Act will be extended to English and Irish graduates and surgeons, to those qualified at the Dublin School of Medicine, and also to the Irish Apothecaries. It was by mere oversight that this class was omitted, for it is evidently alluded to in the thirteenth Section. Every one will applaud a general Act, but the interested only could approve of a partial one.

BOOKS.

Clinical Lectures on the Contagious Typhus Epidemic in Glasgow and the vicinity, during the years 1831 and 1832. By Rich. Millar, M.D., Senior Physician to the Royal Infirmary, and Regius Professor of Materia Medica in the University of Glasgow. 8vo. pp. 144. Glasgow: Brash and Co.; London: Longman and Co. 1833.

The learned Professor has inculcated the soundest views that have recently been promulgated on fever, and gives a fair criticism on the multifarious discrepancies on that important class of diseases. We shall notice his work in our next.

Sketches from the Case Book, to illustrate the Influence of the Mind on the Body, with the Treatment on some of the most important Brain and Nervous Disturbances which arise from this Influence. By R. Fletcher, Esq. Surgeon to the Gloucester General Hospital. London: Longman and Co. 8vo. pp. 391. 1833.

CORRESPONDENTS.

Sigma.—The suggestions of our correspondent could not be acted upon with any degree of propriety at present. We are much obliged to him for his hints.

Mr. S.—We request four times the quantity by the next packet, even though there may be some delay.

A Student at St. Thomas's.—Dr. Roots's Lectures will appear as soon as we receive them.

A Reformer.—We should hope the Legislature will afford equal privileges to the graduates of the English and Irish Universities, and to the English and Irish surgeons, as to the Scotch. The Act ought to be general or not passed at all. The members of Parliament for England and Ireland will, we trust, protect the best interests of their representatives, which are deeply involved in the new Apothecaries' Act.

A King's College Student.—We cannot insert the letter—it is too intemperate.

A Westminster Hospital Student.—We cannot insert the communication unless it be authenticated.

Amount of Subscriptions received in aid of liquidating Dr. Ryan's law expenses

	£	*s.*	*d.*
	227	17	6
Dr. Veitch, Chelsea . .	1	0	0
Mr. Wood, ditto . . .	0	5	0

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 73. SATURDAY, JUNE 22, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XLI., DELIVERED JAN. 21, 1833.

Gentlemen,—I have already mentioned, that when fractures of the spine are attended with injury of the medulla spinalis, they usually cause paralysis of the bladder and sphincter ani, and, in short, of all the parts below the seat of the injury; consequently, the lower extremities, bladder, and sphincter ani, are generally paralytic, so that the patient cannot void his urine, neither can he retain his feces. But, gentlemen, there is not only an inability to discharge the urine, but also a change in its quality: and if the patient live any time after the accident, it becomes strongly ammoniacal, and disease of the bladder itself is disposed to come on. The preparation, which I now show you, was taken from a patient who survived a fracture of the spine thirty-eight days; his urine soon assumed a very ammoniacal smell; and, after death, the coats of the bladder were found softened, thickened, and, as I believe you may observe, ulcerated; at all events, the mucous coat of the bladder is disposed to ulcerate in cases of this kind, and the pus, which is secreted, is then voided along with the urine. The next preparation is a diseased bladder, taken from a patient who had either a disease or a fracture of the spine: but I think the former; and I wish you to remember, that the change of the urine, and the morbid alteration of the bladder which I have been speaking of, may follow either a mechanical injury of the vertebræ, or disease of those bones. Indeed, it would seem as if the alteration of the bladder were sometimes very much concerned in bringing on the patient's dissolution. I should mention, that cases are recorded in which not only disease of the bladder was noticed after death, but even pus in the infundibulum and pelvis of each kidney. Patients confined to bed for weeks and months, in consequence of fractures of the spine, are likewise particularly subject to sloughing of the nates. Sir Astley Cooper relates a case of fracture of one of the lumbar vertebræ, which the patient survived two years, and then died of sloughing of the nates.

If the patient gets over the danger likely to arise from injury of the medulla, or from other complications, such as the mischief frequently done to the viscera of the abdomen, a fracture of the spine may unite, like that of any other bone. The chance of the patient's recovery, and the length of time he is likely to live when a final recovery cannot take place, will mainly depend on the situation of the fracture, and on its complications; that is, on whether it affect the cervical, dorsal, or lumbar vertebræ, and whether it be joined with serious injury of the medulla. The higher up the spinal column the fracture is situated, the sooner it is likely to prove fatal. When the dorsal vertebræ are broken, and the fracture is accompanied by displacement, the patient seldom lives beyond the second or third week. However, Sir Astley Cooper gives one instance of a fracture of the dorsal vertebræ, in which the patient lived nine months after the accident. When the lumbar vertebræ are fractured, the patient frequently lingers six or eight weeks: and he may live a considerable time. Thus, as I have already told you, Sir Astley Cooper had a patient who lived two years after a fracture of one of the lumbar vertebræ, and might have lived longer, had it not been for a sloughing of the nates. In fact, many patients survive the accident a long time and die at last from the latter cause, or even from mortification of the lower extremities, as was exemplified in one of the interesting cases recorded by Sœmmering, in his valuable treatise on the present subject. When mortification attacks the lower extremities of persons, who have been long confined to bed

in consequence of an injury of the spine, the sloughing usually commences on the heel, the part most exposed to pressure.

When the lower cervical vertebræ are fractured, and the fracture is attended with displacement, and mischief done to the medulla, the patient rarely lives beyond the tenth day; and the higher the fracture is situated, the sooner the fatal result. In such cases, the patient is obliged to breathe entirely through the aid of the diaphragm, because the intercostal and abdominal muscles are paralysed. I hope, gentlemen, that you clearly understand, from what has been stated, that the danger of fractures of the spine depends chiefly on the injury done to the medulla spinalis, and that, if it were not for this complication, the mechanical injury of the vertebræ would be repaired like ordinary fractures of any other bones. This is proved by many examples of recovery, which are known to have followed fractures even of the upper cervical vertebræ, where the fragments had not been so much displaced as materially to injure the medulla. The preparation which I now pass round is an instance, in which the atlas, dentata, and third cervical vertebra, are joined, and, as it were, soldered together by bony matter, in consequence, as I believe, of previous disease, though a fracture is mentioned in the catalogue. However, it is known, that persons may recover from fractures of the vertebræ situated as high up as the highest portion of the spinal column, if the medulla happen not to be too severely hurt; and, that when the patient lives a certain time, more or less repair of the injury of the vertebræ is always accomplished.

The next preparation was taken from a patient, who survived a fracture of the dorsal vertebræ four weeks. Nature appears to have made considerable efforts to unite the fracture by throwing out bony matter; but the spirit is so turbid that I fear you will not readily see the circumstance to which I refer. In the museum of the College of Surgeons, there is a remarkable preparation demonstrating the possibility of life being continued a long time, even a twelvemonth, after a fracture of the last dorsal vertebra. The patient, from whose body the preparation was taken, lived a full year after the accident, during which period nature had made the greatest exertions to bring about a union of the fractured part. The patient had been kept perfectly at rest, and his urine drawn off with a catheter twice a-day for a considerable time; but, by degrees, he regained the power of emptying the bladder without assistance. You will sometimes find, that patients labouring under paralysis of the bladder from fractured spine will, after a time, so far recover from this infirmity as to be able to discharge the contents of the bladder by pressing on the hypogastric region with the hand; but, in the case under our present consideration, the patient actually regained the power of expelling the urine by the action of the abdominal muscles. In fact, he got well enough to sit up, and even creep down stairs, or take an airing in a carriage, though he never recovered the power of voluntary motion in the lower extremities so as to be able to walk. At the expiration of a twelvemonth he died, and it was then found, that the fracture was completely united. One of the most curious circumstances attending this case is, that a fragment of the broken vertebra was actually forced across the medulla, so as to sever it completely into two parts, which, in the preparation, appear to have an interspace of one inch between them. This fact is certainly curious, and what would not have been expected, when we consider that the patient recovered the power of sitting up, crawling up and down stairs, and of expelling his urine. Who, indeed, would have anticipated these things, had it been known, that the medulla had been cut in two by a fragment of bone. Professor Soemmering relates an instance, in which a patient lived several months after a fracture of the body of the first lumbar vertebra, and of the articular and transverse processes of the last dorsal one: after death, the fragments were found completely united by osseous matter. Cruveilheir's engraving on the table illustrates the same fact, of the possibility of bony union in fractures of the spine; and proves, indeed, that such injuries admit of union, like fractures of other bones. The plate gives us a view of a portion of the spinal column, taken from a patient, whose case came under the observation of Cruveilhier, and who lived four years after the accident, in the course of which period, all the paralytic effects of the injury had been completely removed. Yet, you see, there was considerable displacement of the fracture. The patient ultimately died of some disease, not at all connected with the accident. According to Cruveilhier, the bony matter, uniting the fragments in this case, had been thrown out, less from the two portions of the broken vertebræ themselves, than from the fibrous textures around them, and from the vessels of the neighbouring muscles. An interesting case is recorded in the last volume of the London Medico-Chirurgical Transactions by Mr. Barlow, of Writtle, in Essex, in which the first lumbar vertebra was fractured. In this example, sensation began to return to the leg and thigh in about eight months after the accident, and the patient recovered a considerable degree of sensibility in the lower extremities. At the end of twelve months, when he was well enough to be taken out for the benefit of the air in some kind of carriage, he was unfortunately attacked by fever, and his strength seriously reduced, in which state sphacelus took place on his heel. Pus was now voided along with the urine, the bladder having become diseased and ulcerated. Gangrene next attacked the nates, and the patient died. On dissection the upper part of the

spinal column was found displaced forwards, and the two portions of the broken vertebra were seen to be united by osseous matter. Here, gentlemen, you have another fact, proving that fractures of the vertebræ may unite, like those of other bones.

An interesting case is mentioned by Mr. Lawrence, in which the patient lived a considerable time after a fracture of one of the vertebræ: on dissection after death, the fracture was found to be completely joined by callus, and a quantity of osseous matter had actually filled up nearly the whole of the vertebral canal, there being left only a space just capable of admitting the end of a blow-pipe. The spinal cord had here been completely divided, yet the patient lived, as I have stated, a long while after the accident.

Gentlemen, with respect to the *treatment of fractured vertebræ*, you should first consider what is proper to be done, if there be no displacement. Here, the indication is to keep off inflammation of the spinal marrow and its sheath, by antiphlogistic treatment, especially by local bleeding and quietude. Bleeding, therefore, and aperient medicines will be required; and here I should mention, that powerful cathartics are generally necessary, because the intestinal canal, being often torpid and even paralytic, common purgatives will not act upon it. Hence, in many cases, it is found useful to give croton oil. Quietude, local bleeding, the regulation of the bowels, and drawing off the urine as often as circumstances may demand, but at least once a day, form the general outline of treatment to be adopted. In cases of this kind, I wish you to remember, that it is wrong to leave the catheter continually in the bladder, because experience proves, that the end of the instrument is liable to produce, in the condition of the bladder usually following the accident, ulceration of that organ, and sometimes even effusion of urine. In fact, the bladder will not bear the pressure of the end of the catheter in its paralysed state. Many examples of the fatal mischief resulting from the catheter having been left in the bladder in cases of injury of the spine are on record; and it is my duty, therefore, to warn you not to follow that practice. On the contrary, I advise you to introduce the catheter as often as circumstances require, but never to leave it in the urethra. Indeed, as the introduction of the catheter is always perfectly easy, as far as the fractured spine is concerned in the obstruction of the flow of urine, there is no reason for leaving the instrument continually introduced.

If the fracture were attended with displacement, and the injury of the medulla not above the origin of the phrenic nerve, (in which event the patient would soon perish from the paralysis of the diaphragm, and stoppage of respiration,) you might think that some attempt ought to be made to reduce the fracture; but the annals of surgery hold out very little encouragement for the repetition of measures, which have been adopted with this view. Manual attempts at reduction were made on the patient, from whom the preparation, which I now show you, was taken; in this instance, there is a fracture of the bodies of two of the vertebræ, with laceration of the medulla and its theca. The attempt at reduction was also made in the case, which I have just referred to, as having lately occurred in the practice of Mr. Barlow, of Writtle, in Essex; he attempted to reduce the fracture, and although no ill consequences resulted from the experiment, yet no good was derived from it; for the fact is, that he did not reduce it, or, at all events, did not maintain the reduction; and it is extraordinary, that he should not have noticed this fact himself at the time when he was considering what had been stated on this subject in my surgical dictionary. In this work, I have said, that the attempt at reduction of the fracture might do additional mischief to the medulla, and diminish the chances of recovery; yet, Mr. Barlow says, that, in the case of his own patient, no harm resulted from the practice, which I fully believe was the fact; but then it is to be recollected, that this gentleman did not effect reduction, for he states, that on dissection he found that bony union had taken place, but that one portion of the broken vertebræ was situated more forward than the other. Hence there had been either no reduction, or it had not been maintained. By the experiment of trying to reduce a fracture of the spine, I think you run a great risk of rendering things worse than they are already, and even if reduction were to be effected, the mischief done to the medulla would still continue. However, if the position of the fragments could be rectified without any additional injury or disturbance of the medulla, then of course the attempt should be made; but we are frequently so ignorant of the exact position of the fragments, that the experiment is far from being, as far as I can judge, exempt from the chance of making what is bad still worse.

It has been proposed to remove the pressure of the bone on the spinal marrow, in the same manner as is done on the head, when a portion of the skull is depressed towards the brain. The usefulness of the trephine for such an accident, led to the idea of dividing the bony arch on each side of the spinous process, and taking it away, so as to remove the pressure caused by its depression; but I think with Sir Charles Bell, that if the pressure were removed in this manner, the patient would still have very little chance of recovery, and that the mischief unavoidably arising from the operation itself, independently of the previous injury, would leave a poor chance of recovery. There are three operations of this kind on record. The particulars of the first case, namely, that under Mr. Cline, I believe have not been published; but the operation did not answer. In the second case, the patient

lived three weeks, and then died of peritonitis. In the third, there was a temporary return of sensibility to the lower extremities after the operation, but rigors soon came on, and the patient died in twelve hours. In short, as far as operations of this kind have been performed, the results have been unfavourable. Then, gentlemen, you should recollect, with regard to the operation, that it does not affect the position of the fragments of the broken body of the vertebra, and any pressure of the medulla, produced by them, would still remain. The generality of surgeons are therefore adverse to a repetition of the practice under consideration. According to the view which I take of these cases, it appears to me, that the treatment ought to be restricted to antiphlogistic means, or such as are calculated to lessen the risk of inflammation and suppuration of the medulla. The surgeon should confide principally in local bleeding, the regulation of the bowels, and the use of the catheter as circumstances may demand. If it were possible, all patients with fractured vertebræ should likewise have the comfort of a fracture-bed, and in the event of sloughing of the nates or other parts coming on, or being likely to commence, it would be right to let him have the benefit of the hydrostatic bed. If life should last long enough to justify the inference, that the broken part of the vertebræ had united, you might then endeavour to bring on a return of sensibility to the paralysed parts below the fracture, by the use of blisters, issues, or the moxa, or by means of friction with iodine ointments or liniments. Whether strychnine has ever been used in these cases, I do not know; but I should not expect it would answer.

Some curious effects are occasionally remarked after injuries of the spine, which were wholly unintelligible previously to the light thrown on the physiology of the nervous system by Sir Charles Bell and Dr. Magendie. A singular instance of this sort occurred in my own practice about a year and a half ago; a man, residing in Black Horse-yard, Rathbone-place, fell from the mast of a ship, and injured his spine, after which misfortune he remained a long time in the following state; both of his legs were paralytic, but one of them retained the power of motion without any sensibility in it; in fact, he could feel nothing that touched the limb, yet the other leg could feel perfectly every thing that came in contact with it, but had not the slightest power of motion. Facts of this sort certainly receive elucidation from Sir Charles Bell's discovery, that the spinal nerves come off in double roots, the anterior ones being for motion, and the posterior for sensation. By blistering the lower portion of the spine, and giving tonic and purgative medicines, this patient recovered.

Gentlemen, the next cases, which I wish to bring under your consideration, are *fractures of the sternum.* These do not occur so frequently as might be expected, considering the exposed situation of the sternum in front of the chest. For this fact, there seem to be two reasons; the first is, that the sternum is a very spongy bone, and less brittle than many others; the second is, that it rests on the cartilages of the ribs, which form such an elastic support for it, that it is enabled to elude any common violence, by the yielding of those parts. However, notwithstanding these circumstances, it is sometimes broken, and it may be fractured by gun-shot violence, or by the passage of a heavy carriage over the trunk, or by any other considerable force applied directly to the sternum. But, gentlemen, the fracture may occur in another manner, which you would not at all expect. M. David, in his *Mémoire sur les Contre-coups,* relates a case, which took place in the following way: a bricklayer fell from the top of a house, and as he was falling, the middle of his back struck against a piece of timber, and the consequence of this blow was a fracture of the sternum. Now, the explanation given by M. David of the mode, in which the sternum happened to suffer injury, is, that it was broken by the violent action of the abdominal muscles, and that of the muscles of the neck, connected with this bone, whereby it was powerfully drawn at once in different directions. The truth of this account is confirmed by the curious fact, that the sternum is sometimes fractured during parturition by the violent efforts of the muscles attached to it; several cases of this kind are upon record.

A fracture of the sternum is not in itself dangerous, but it may be followed by severe and even fatal consequences, on account of the thoracic viscera happening to be injured at the same time; thus, the lungs or the heart may be penetrated by a fragment of a broken sternum. In the museum of this University is a preparation, exhibiting a laceration of the right ventricle of the heart by a portion of fractured sternum; here, gentlemen, is the preparation to which I allude, and which I pass round for your inspection. M. Sanson, an eminent surgeon at Paris, met with a similar case, in which the heart was torn by a sharp spicula of a broken sternum. Blood may also be copiously effused in the cellular membrane of the anterior mediastinum; and sometimes considerable inflammation of this texture will ensue, leading to the formation of abscesses, and to various degrees of necrosis in the injured bone. One occasional complication of a fracture of the sternum is *emphysema,* or an inflation of a great part, or of the whole, of the cellular membrane of the body, which can only take place, however, when a spicula of bone happens to wound the lungs.

As the sternum is a superficial bone, its fractures are readily detected: if there be displacement, the lower portion is generally situated in front of the upper one, and sometimes overlaps it. In most instances, you will be able to perceive the grating noise, or cre-

pitus, which is produced by the motion of the fragments on one another in respiration, and which is particularly obvious when the patient coughs, if you apply your hand to the front of the chest. The patient, indeed, is usually teased with a frequent dry cough, and when the lungs have been pierced by a spicula of bone, there is a spitting of blood, which symptom may be followed by emphysema. The cough is particularly annoying from the motion and disturbance it causes of the injured part.

If there be no displacement of the fracture, no complication, the treatment is simple enough; the principal indication is to keep the fragments as quietly as possible in their present position, which is most effectually accomplished by applying a broad roller round the chest, and making it press on the broken bone and ribs, so as to limit and diminish their motion. The bandage should be rather tight, and kept from slipping down by passing a piece of tape over each shoulder, from the centre of the roller behind to a point in front of the chest. If the tapes were fastened too near the axillæ, they would slip off the shoulder, and not answer the purpose of their application. In order to keep the fragments as quiet as possible, the trunk should be inclined forwards, and the pelvis raised, so as to relax the abdominal muscles. Whenever the sternum is broken, another indication is to bleed the patient freely, because the risk of inflammation, taking place in the chest, must be guarded against. Bleeding is also one of the most effectual means of relieving the cough, which, as I have told you, always occasions severe pain, and a great deal of disturbance of the injured part. The lancet, antiphlogistic measures in general, especially quietude, the application of a broad bandage round the thorax, the relaxation of the recti abdominis, and the administration of an emulsion with a little opium, for the palliation of the cough, made be said to constitute the means of treatment, applicable to fractures of the sternum, under ordinary circumstances.

But, supposing the fracture were attended with displacement, some practitioners advise us to relax the abdominal muscles, asserting that we shall then more easily succeed in reducing the fracture by pressure, while others say it is best to extend the spine by putting a bolster underneath the loins, as they assure us, that, in this position of the patient, the fragments can be more readily reduced. Now, if you were unable to effect a reduction by either of these plans, then the question would present itself whether you ought to perform an operation for the purpose of bringing about a coaptation of the bone? Whether you would be justified in making an incision down to the fracture, and trying to raise the depressed portion of bone to its proper level, by means of an elevator? Without pronouncing an unqualified condemnation of this scheme, I may safely tell you, that before you think of putting it in execution, you should be sure that the bad symptoms present are really produced by compression of the thoracic viscera, and that they are of a sufficiently urgent nature. Let me remind you, that a moderate depression of a portion of the sternum would not be likely to create any dangerous symptoms, inasmuch as that bone lies over the anterior mediastinum, which merely contains cellular substance, pressure on which would certainly occasion no perilous consequences. But, gentlemen, you are also to recollect, that the thoracic viscera may be injured, and that such injury may be the true cause of the urgent symptoms. In this case, merely elevating a moderately depressed portion of the sternum would promise little relief. However, what I wish to be well considered is, whether the bad symptoms are produced by mere compression of the thoracic viscera, or by any other description of mischief? A case is recorded by Petit, in which the patient recovered from an unreduced fracture of the sternum, but experienced severe oppression in his chest, and great difficulty of breathing during the rest of his life. It seems, therefore, that, if the fragments are left displaced beyond a certain degree, the patient may suffer from the sternum being united in this deformed state. The cases, in which you might be called upon to trephine the sternum, (another proceeding fortunately oftener spoken of than done), are, first, those in which purulent matter is confined in the anterior mediastinum in considerable quantity, so as to occasion dangerous oppression of the lungs; and, secondly, others in which it might be deemed right to adopt the practice to expedite the removal of a portion of dead bone. But, gentlemen, even circumstances of this kind, truly requiring the operation, are exceedingly rare, for abscesses make their way outward, and dead bone will in time separate by the process of exfoliation. The formal application of the trephine to the sternum, for the purpose of raising a depressed portion of it, I think, would hardly be deemed justifiable in the present state of surgery.

CLINICAL LECTURES

DELIVERED BY

DR. WILLIAM STOKES,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE VI.

Hydrophobia.

GENTLEMEN,—I proceed to make some observations on the subject of hydrophobia. At my last lecture, I called your attention to a well marked case of this disease; and as we have had, within a short period, a case of tetanus also, you have an opportunity of contrasting two of the most remarkable affections submitted to the skill and abilities of a medical practitioner.

Hydrophobia is a disease which, on every ground, demands the most careful inquiry. Many are deterred from this investigation by reflecting on the fact, that hitherto we may look on all attempts at discovering its nature as perfectly fruitless, and that, in the present state of medical science, it is, in the fullest acceptation of the term, an incurable disease. A consideration of this kind would lead us, at first sight, to give up the investigation as hopeless; but this would be extremely wrong. The more obscure and intractable a disease is, the more eagerly and perseveringly should we seek to investigate its phenomena, and attempt its removal. My object, in this lecture, is to state the sum of our knowledge on the subject. You will not, of course, expect that I shall bring the whole matter in detail before you, or that I can communicate any original information of importance.

This disease is known under a variety of names. One of the most common is hydrophobia, a term derived from two Greek words, and signifying a dread of water. In this country it is called *canine madness*, in France, *la rage;* it is the *rabies canina* of the Latin authors. Several persons have objected to the term *hydrophobia* as a proper designation of the disease, as it only expresses one of its symptoms, and that not very accurately. In addition to this, we find that the dread of fluids, or the impossibility of swallowing them, is not peculiar to hydrophobia alone; we notice this symptom in other affections also; and you will find, in various authors, cases of tetanus, of hysteria, of spasmodic dysphagia, and spasmodic affections of the cardiac orifice of the stomach, in which the aversion to fluids and the difficulty of swallowing them were very remarkable. These are the cases which have been termed *spontaneous hydrophobia*. A man in this city met with a very severe accident some time since: he was crushed against the wall by a cart which was passing; tetanic symptoms succeeded the injury. During his illness he was frequently observed to have a strong aversion to fluids; he used to start at the sight or sound of water, just as a rabid patient would do, and yet his complaint was tetanus. Morgagni gives three cases of what he calls hydrophobia, and mentions that they were caused by the patients taking a drink of cold water while the body was heated. These, as you can readily conceive, were not cases of hydrophobia, but inflammation of the cardiac orifice of the stomach, with spasms of the œsophagus. It is also probable, that fear may bring on symptoms of the disease; and it is a fact, that many persons of nervous temperament feel a difficulty of swallowing for some time after having seen a case of hydrophobia. Such instances will enable you to understand how so many cases of hydrophobia have yielded to a variety of treatment, and how, because such cases have recovered, the means employed have been set down as capable of effecting a cure in every form of the disease. I have very little doubt on my mind that many cases put forward as examples of genuine hydrophobia were only other affections whose symptoms bore some resemblance to those which characterise the true disease. Dr. Barbentini, in the "Giornale di Fisica," gives a very curious case of this kind. A gentleman happened to receive a bite from his own dog, which gave him very considerable uneasiness and apprehension. His alarm was increased by the sudden and unexpected disappearance of the animal, and for the space of four days he could not swallow anything, either fluid or solid. Nine days after he had been bitten he was agreeably surprised at seeing his dog enter his apartment in his gentlest manner, and proceed to caress him as usual. He became convinced that the dog was quite well, and from that time he gradually recovered. Here, gentlemen, was a case of hydrophobia produced by apprehension alone: the symptoms came on sooner than natural, and ceased when the exciting cause was removed. What a splendid case this would have been for an empiric, and how he would glory in the efficacy of his nostrum on this gentleman's recovery!

It does not appear that the older Greek physicians had any accurate notion of hydrophobia. Aristotle speaks of it as occurring in dogs, but denies that they can communicate it to man. We see, however, in Sprengel's History of Medicine, that it was known to the Roman practitioners about the time of the fall of the Republic and the commencement of the Imperial sway; and it was believed by some of them that its seat was in the stomach and diaphragm, from the vomiting and singultus by which it is accompanied. In the writings of Celsus you will find an accurate description of hydrophobia as it occurs in the human subject; and it is very remarkable, that he recommends the application of cupping-glasses over the wound to prevent the absorption of the virus, a mode of treatment to which the attention of medical men has been of late strongly directed by Sir David Barry, and to which I shall again allude.

Before we examine its phenomena in the human subject let us briefly investigate its occurrence in animals, from which it would appear, in every instance, to have been communicated to man. What is its origin in animals? Can it arise spontaneously, or is it invariably the result of direct infection? These are some of the most difficult questions in the whole range of medical science; questions, which I fear we cannot at present satisfactorily decide. We know nothing of the origin of any specific disease; the primary sources of such complaints are buried in an obscurity too dark and intricate for human investigation. Yet, we may be allowed to say, that hydrophobia must have originated spontaneously at some time or other, and if this be the case, it may do so again. On the other hand, there is nothing more difficult to prove than the abso-

lute non-reception of contagion in any instance. It is asserted that the dog and cat tribe may become affected with spontaneous madness; but how hard must it be to determine the absence of contagion in every case supposed to originate in such a manner.

Although I fully admit the phenomena of contagion in various diseases, yet I have always inclined to the opinion, that in many affections called specific and contagious the disease may arise from a peculiar morbid condition of the system, and be afterwards communicable. In fact, I cannot find much greater difficulty in imagining the original production of the poison and symptoms of rabies in the dog, than of typhus fever in man. Yet we must acknowledge, that in the present state of medical science it is extremely difficult to determine the question, whether rabies may arise spontaneously in the dog and cat tribe or not. With respect to the animals in which rabies has occurred without distinct proofs of the reception of a contagious virus, medical men generally agree that these are the dog, cat, fox, and wolf, while it seems to be admitted that in man and all other animals no case has been observed where the disease could not be traced to distinct inoculation. Some of the older authors, indeed, hold a different doctrine, but what I have stated seems to be the modern opinion. The proposition is, that in the canine and feline tribes we are not able to prove the reception of the peculiar virus, but in man, and all other animals, we can.

A much more important question is to decide what animals are capable of communicating hydrophobia, when affected by its peculiar poison. Now there can be no doubt that animals of the dog and cat species can communicate the disease. First, to one another; secondly, to animals of different orders, as the graminivorous and birds; thirdly, to man. These facts are so well ascertained, that I need not dwell on them. Our next inquiry is, whether it can be communicated by animals not belonging to those which are generally supposed to be affected by it spontaneously. On this subject I believe there is a great deal of doubt still existing. At a former period it was supposed that this was a common occurrence; and it was believed that animals not of canine or feline species might communicate the poison of hydrophobia; but this has been distinctly denied in a memoir read by Lugard at the National Institute of France. Moreover, the researches of the celebrated professor of veterinary medicine at the School of Alfort go to prove the non-communicability of the disease by animals which do not belong to the dog and cat tribe. Dupuy rubbed wounds made in calves and sheep with a sponge dipped in the saliva of similar animals attacked by hydrophobia, without being able to reproduce the disease. But he succeeded in producing rabies when similar animals had their wounds rubbed with a sponge impregnated with the saliva of a rabid dog. He also states, that he observed when some of a flock of sheep were attacked, although they bit others, the disease was not communicated even when the bites were received in parts uncovered by wool. Many experiments have also been made by others of inoculating with the saliva of animals not of the canine or feline species, but without success. It is stated by one author, that a badger attacked two boys and bit them: that one died rabid on the 29th day after the injury, and the other recovered. You will find these statements in Hufeland's Journal for 1820. We may, however, reasonably entertain strong doubts whether the boy who died was affected with genuine hydrophobia; the recovery of the other is at least a powerful argument against it. At all events it appears, that though in the present state of our science we cannot positively affirm that animals (not of the dog or cat tribe) can or cannot communicate the disease, yet this seems to be fixed and established, that if they possess such a power it is in an infinitely less degree; and there is good reason to doubt whether it exists at all. Professor Betti, of Florence, maintains that the virus of rabies loses all its contagious nature when it passes into animals which do not belong to the canine or feline species.

With respect to the communication of the disease by man, it is necessary to offer a few remarks, as from the received opinion in former times, that *all* animals affected with rabies were capable of communicating it, arose the horrible practice of destroying persons attacked by hydrophobia, a practice which, it is to be hoped, will never again disgrace humanity. Nothing can justify the taking away the life of a fellow-creature except the imperious necessity of self-defence; and I think the day is not far off when Christianity and civilisation will erase that page from the statute book in which the punishment of death is written in characters of blood. I am anxious to impress this on you, because I have heard men say, that in a case of hopeless disease and exquisite suffering, it would be humane and charitable to terminate the agonies of the patient by death. You may be implored by patients under such circumstances to put a period to their torments. I have myself been placed in this situation, and so have others. Albers, a Genevese physician, was requested by a lady labouring under hydrophobia to bleed her to death; and there are other examples of the same kind. But let not even a thought of this nature enter your minds; and if such an awful request should ever be made, say that human life is a sacred thing, and that to anticipate the will of the Creator is to violate one of his most sacred commands. Many of you will be surprised to hear, that only twenty-one years from the present period, in consequence of the horrible notions then prevalent, a young gentleman affected with hydrophobia was destroyed by his medical attendants by suffocation! It is unnecessary for me to state how frightful such

a practice is, when we consider how many cases occur from apprehension, or how frequently various curable affections are mistaken for hydrophobia, because I think it is a practice which the progress of science and civilisation has abolished for ever.

But to return to our subject. It appears, from the strongest evidence, that there is no case to prove that the disease has ever been communicated from man to man. In a single instance recorded by Magendie and Breschet, a dog became rabid after inoculation with the saliva of a rabid human patient; but to infer from this the conclusion that one man can communicate the disease to another, would be quite ridiculous, and in the absence of direct proofs extremely unphilosophical. The following conclusions appear admissible with respect to the transmission of hydrophobia through the medium of the saliva. First, there is no satisfactory evidence to prove that animals (not of the dog and cat tribe) can communicate the disease by biting; secondly, that there is no direct proof that man has ever communicated the disease to man; and thirdly, that in one case symptoms of hydrophobia occurred in a dog subsequently to inoculation with the saliva of a hydrophobic patient, but that this is by no means conclusive of the possibility of human inoculation, and requires further proof. It is said that a person, while engaged in the barbarous sport of cock-fighting, received a bite from one of the birds, which was followed by hydrophobia; but this, in the opinion of the best informed surgeons, was a case of tetanus and not of rabies.

Let us now examine briefly what are the exciting causes of the disease in animals. We have already seen that the exciting cause of the disease in man was, in all cases, inoculation with the saliva of a rabid animal of the canine or feline tribe; but as the spontaneous development of the disease in animals of the above-mentioned species is pretty generally received, we find accordingly a vast number of exciting causes enumerated. It is a common opinion, that extremes of temperature, particularly of heat, are highly conducive to the occurrence of rabies. Audry, who has made the most extensive researches, and written the best monograph on this subject, declares that, in the months of March and April, most wolves are affected, and that in the months of May and September the disease is most common among dogs. This statement, which is grounded on the most extensive induction, goes to invalidate the opinion, that extremes of temperature are favourable to the production of this disease. This is still farther weakened by the fact, that in the cold, and in many of the hottest climates, rabies in dogs and other animals is almost completely unknown. It is scarcely ever seen in the countries north of Petersburgh, and all authors are agreed as to its absence or extreme rarity in tropical climates. It seems to be unknown in Egypt and in the West Indies; it is very rare at the Cape of Good Hope, and is seldom met with in South America. Many other circumstances in addition to the former tend to prove that hydrophobia is more a disease of temperate than of extremely hot or cold climates. It is said, that hunger, thirst, feeding on filthy and putrid substances, &c. are exciting causes of rabies in dogs. This, however, is unsatisfactory, and by no means certain. Dogs are attacked with rabies who have been kept in the best manner, while, on the other hand, in countries where they live on putrid substances, and often suffer dreadfully from thirst, as in Turkey and Africa, the disease is of very rare occurrence. I may add, that many cruel experiments have been made, and animals subjected to very severe privations, with the view of inducing rabies but without effect. Neither has the opinion been established, that animals are more liable to madness during the season of love, for we find the disease occurring at all times of the year. The truth is, we know little or nothing of the exciting causes of rabies in animals.

Some persons, gentlemen, in our profession, affect to deny the existence of rabies as a distinct and separate poison, and go nearly to affirm that it exists only in the imagination. These individuals must be slow of comprehension, and of an obstinate turn of mind, or their views of pathology must be very limited, for it would appear that the existence of rabies as a distinct disease is placed beyond any doubts. In man and other animals it is distinct in its origin, distinct in its symptoms and in its hitherto fatal termination. Those who maintain the opposite doctrine may call for proofs of the nature and properties of its peculiar virus. Of this we know nothing; we only know that it is a fearful poison, but our ignorance of its nature does not disprove its existence. What, we may ask, is the nature of plague, of typhus, and of other infectious diseases? Here we are totally in the dark, but the existence of such contagions is too well proved to be doubted. Pathological anatomy throws no light on these diseases. True; but is this an argument against their existence? How many diseases are inexplicable by pathology? Does it explain tetanus, or neuralgia, or mania, or nervous palpitations, or typhus?

Rabid hydrophobia has every thing to constitute it a distinct disease. Those who deny its separate nature suppose it to be the effect of fear, or, in other cases, a species of tetanus from the irritation of the wound. Now, in many instances, the disease in the human being has arisen where (as in the case of infants) there could be no apprehension of its results. It would be ridiculous to suppose that animals are tormented by fear during the latent period of the disease; only imagine the idea of a fowl brooding over the idea that it was about to become hydrophobic! With tetanus there is little analogy, further than that both diseases appear to belong to the class neuroses, that is

lesions of function unconnected with any perceptible alteration of structure; in all other respects they are essentially different. In both there are spasms, but these are quite dissimilar. In hydrophobia the spasms are atonic, in tetanus tonic. Remember the appearance of the tetanic patient on yesterday. She was lying on her face perfectly rational, but with permanent opisthotonos; her countenance peculiarly and permanently altered. Contrast this with the incessant agitation, the irregular muscular action, the staring and dilated eye, the expression of horror and suspicion, the constant singultus, the starting and convulsions at the mention or sight of water, and the other dreadful symptoms which marked the distressing close of life in the poor child who lately died of hydrophobia. There are other points, too, which distinguish hydrophobia from tetanus. In the latter disease we have seldom thirst or vomiting; the mind is clear; fever seldom present; the disease is not always fatal; it may arise from cold or from any kind of wound; it rarely follows the bite of a rabid animal, and is of common occurrence in warm climates. How opposite is all this to hydrophobia!

Every thing appears to favour the opinion that hydrophobia is a specific disease, and arising from a peculiar virus. Why? Ask Troillet and Vittermé. If there is no such virus, why do so many persons, bitten by rabid animals, die of hydrophobia? Why have they all a dread of water? Why is it that those persons who have been bitten in uncovered parts of the body, are much more liable to the disease than others who have been bitten through their clothes? Why is it that animals, bitten by rabid dogs, become hydrophobic, while fighting dogs do not communicate it to one another? Why do none of the thousands, wounded on the field of battle, become hydrophobic? Why is the disease communicable by inoculation? and why does it present the same characters and intensity, whether that inoculation be or be not the result of art? Lastly, if there be not a virus, whence is the advantage of the practice of excision and cauterisation, a practice which we shall find to constitute the chief part of the few means within the power of man to prevent the access of the disease?

Before I leave this part of the subject I shall say a few words respecting the opinions of Dr. Marochetti, which have lately excited so much interest from his assertion that he had discovered a prophylactic and a cure. While Dr. Marochetti was in the Ukraine, in 1813, in one day fifteen persons applied to him who had been bitten by a mad dog. While he was about commencing a plan of treatment, a deputation of several old men made its appearance, to request of him to allow a peasant to undertake their cure, stating that he was a person who had for some years past enjoyed a great reputation for the prevention and cure of hydrophobia. As Dr. Marochetti had himself heard much of this man's success, he consented to their request, on condition that he should be allowed to witness every thing done by the peasant, and select one of the patients to be treated by himself, according to the usual medical course; —a girl of six years old was chosen for this purpose.

The peasant gave his patients about a pint and a half of the decoct. genistæ every day, and examined the under surface of the tongue twice a day, stating that in this part, close to the frænum, small knots containing the hydrophobic virus must appear, a circumstance which, according to Marochetti's account, actually took place, and the knots were seen by himself. These were opened by the peasant, and afterwards cauterised with a red hot needle; and the patients were then directed to gargle constantly with the decoction of genista. The result of this treatment was that all were dismissed cured at the termination of six weeks, while the little girl who had been treated after the usual method died on the seventh day after she had been placed under Marochetti's care, with symptoms of rapidly fatal hydrophobia. All the others were seen three years afterwards by Marochetti, and they were all sound and well.

Five years after this twenty-six persons, bitten by a mad dog, were confided to his care in Podolia. Of these nineteen exhibited the small knots before mentioned. Those most bitten had them on the third day, others on the fifth, seventh, and ninth, and on a woman, who had been bitten very superficially, only on the twenty-first day; seven showed no knots. All were treated after the mode employed by the Russian peasant, and all recovered. In consequence of these observations, M. Marochetti was of opinion that the hydrophobic virus, after remaining a short time in the wound, fixes itself for a certain time under the tongue, at the openings of the ducts of the salivary glands, and there forms small knots, which have a sense of fluctuation and contain the hydrophobic poison. The time of their appearance is usually from the third to the ninth day, and if they are not opened within twenty-fours after their appearance, the poison is re-absorbed and the patient dies. Hence he recommends a frequent examination of those parts during the six weeks the patient is taking the decoct. genistæ, and directs them to be immediately opened and cauterised.

Marochetti believes that the poison at first acts on the nerves of the sublingual and submaxillary glands, and from these is afterwards re-absorbed. This doctrine, in its essential characters, is by no means new. The Greeks were of opinion, that about the ninth day after contagion small vesicles were found beneath the tongue, these were called lyssæ. And we find the most ancient name for rabies is lyssæ or lytta, by which was meant what was supposed to be a worm under the tongue, which was considered to be the cause of the disease.

This has been since shown to be nothing but a little ligament peculiar to dogs, but the practice of worming dogs still continues, though Hamilton has shown that such a practice is inefficacious, either in preventing or curing the disease. Other authors, as well as Marochetti, have described these sublingual pustules; while, on the other hand, Vatel, Brendt, and Urban, all late authors, have denied their existence. In 1823, some experimenters at Lyons inoculated dogs from the sublingual glands of other animals of the same species, affected with rabies, but without any results. These facts, with the consideration that a diseased state of the mucous follicles is common to many diseases, and the close analogy between the doctrines of Marochetti and the old opinion of the worm in dogs, all tend to cause strong doubts as to the constant existence of those pustules, and their necessary connexion with the disease.

It is evident, then, that the statements of Marochetti go but little to farther establish the doctrine of a virus, in fact, they rather weaken it. But though the facts, which I have before stated, are more than sufficient for its establishment, there is a difference of opinion among authors, as to whether the saliva alone is the seat of the virus, or whether other fluids of the body may not also be impregnated with it. The ancients believed that the disease might be communicated by eating of the flesh of animals which had died rabid. The cases which are given, however, occurred soon after swallowing the food which had also been dressed. This makes it likely that these were merely cases of fear, and if such an occurrence was possible, how could it have happened, that a popular remedy, mentioned by the Roman authors, namely, eating a portion of the liver, or tasting some of the animal's blood, should have ever been in vogue. This practice we may still recognise in applying a hair of the dog that bit as a prophylactic. Numerous instances are also recorded where the flesh of animals, which died of rabies, was eaten with impunity. As to the blood, it has been ascertained by Dupuytren, Magendie, and Breschet, that the disease could not be communicated by inoculation with the blood of a rabid animal, or even by injecting it into the veins. Dr. Hertwich, professor at Berlin, has come to a different conclusion, and states that, from his researches, (and they were numerous,) not only the saliva and mucus of the mouth, but also the blood and substance of the salivary glands are capable of conveying the disease. He states further, that the power of infecting exists at every period of confirmed hydrophobia, and even for twenty-four hours after the death of the animal. This professor, then, only differs from former observers, in believing that the disease may be communicated by inoculation with the blood, but the opinion that the flesh of rabid animals may be eaten with impunity is strengthened by his researches, as he has found that of twenty-two dogs that were made to swallow the virus none took the disease. From this we shall be led to believe what has been found to be the fact, that there is no danger in drinking the milk of rabid animals.

I think, therefore, that on the subject of the separate nature of hydrophobia and its virus, we may come to the following conclusions:—First, that it is a distinct and specific disease. Secondly, that there is every proof of the existence of a virus. Thirdly, that the formation of this virus seems to be closely connected with the salivary function. Fourthly, that it is only fatal by inoculation with the saliva, and, according to some, with the blood, but that the flesh and milk of rabid animals may be used with impunity.

I will resume this subject, gentlemen, at my next lecture.

CLINICAL LECTURES

DELIVERED BY

G. J. GUTHRIE, ESQ., F.R.S., &c.

At the Westminster Hospital.

LECTURE IV.

ON THE DISEASES OF THE URINARY ORGANS.

GENTLEMEN,—The urethra is termed membranous at the part where it is surrounded by the muscle I last described, and while it is posterior to the triangular ligament. On passing through this it obtains the name of the bulbous part, or portion, in consequence of the bulb of the spongy body of the penis lying below it. In the preparation before you, the urethra is cut off on each side of the triangular ligament, in order to give a clearer view of the manner in which it passes through; the bones remain attached to it, and it is of the greatest importance to observe the different position the parts assume when regarded separately, as in the preparation, or with reference to the bones of the pelvis, as that part lies on the table; or again, with relation to the pelvis in its natural state, when the person is standing erect or lying down. The situation of the opening in the ligament will be very much misunderstood unless the bones, to which it is attached, are placed in their proper position with reference to the body, when the inclination of the pubes forwards becomes obvious, and the obliquity of the descending rami, and of course of the triangular ligament, is apparent. The depth at which it is situated from the external surface will be better understood in this view; indeed, no one can consider himself to be tolerably well acquainted with the anatomy of these parts, unless he has made several preparations like those now before you, demonstrating their structure and mutual attachments.

The urethra, on passing through the triangular ligament does not do so like the finger going through a ring; on the contrary, it is attached to it, and the ligament sends forward

a layer of fibrous structure, which surrounds and supports it. The bulb of the corpus spongiosum is applied to this on the under, but not on the upper part, and the bulb is again retained and fixed in its situation by the acceleratores urinæ muscles, which are attached to it, to the central point in the perineum below, to the triangular ligament on the sides, and particularly above. These muscles do not appear to me to be usually described with the accuracy they deserve. They arise on each side, sometimes by a small pointed triangular tendon from that part of the ramus of each os pubis, where they may be said to be nearest to each other. When this tendon does not exist, they arise from the triangular ligament by fibres, which pass on with it to the same part of the pubes, although they are also firmly implanted around the bulb. The urethra, on passing through the triangular ligament, ascends, and, during this ascent on the fore part of this ligament, which is for half an inch, it is firmly connected to it by additional ligamentous substance, which you see in this preparation firmly adhering to it. The acceleratores muscles, passing from the sides above the urethra, adhere, or are inserted strongly around this part, from which a white line extends upwards for about two inches, being the centre of a flat thin tendon, formed by the two muscles, one surface of which is applied to the urethra, the other, or superior one, lies between the crura penis, before they become corpora cavernosa penis, and afterwards beneath them, forming the under portion of the sulcus, in which the urethra is received in all its bulbous part, and in a portion of that which is denominated spongy. From the origin of the muscles, on each side of the bulb, the lowest fibres pass downwards to cover its inferior part; these arising higher up pass across, and those still higher up ascend, diverging as it were from their point of origin; the fibres of each side are seen meeting in a white central line, lying on the surface of the bulb, passing downwards to form the point of insertion in the perineum, and running upwards on the urethra into a point where the muscular fibres on each side diverge from the urethra, and pass outwardly with the object of running on the ligamentous covering of the corpora cavernosa to their ultimate attachment to that part. This muscle is not only a compressor of the bulb, but of the urethra immediately in front of it, which it surrounds, by tendon on the upper half, and by muscle on the under half, the corpus spongiosum being interposed. The bulbous portion of the urethra is only covered below by the bulb; the upper half is, as you see in this preparation, defended and maintained in its position by the ligamentous attachment I have described, connecting it in the firmest manner with the triangular ligament. The tendinous part of the accelerator muscle is its next defence, until it is received into the sulcus formed by the two corpora cavernosa, the ligament connecting these together being firmly attached to the pubes. The passage of the urethra from the opening in the triangular ligament is a gradual ascent to the point where the penis begins to become pendulous, when the urethra descends suddenly with it, and the line or curve separating the ascending from the descending or pendulous part is formed by the attachment to the under part of the pubes, and not, as is usually supposed, by the common suspensory ligament of the penis. If these points of attachment be attended to, the passage of instruments, be they straight or curved, into the bladder is, in a healthy state of the parts, a very simple operation. They are guides, also, demonstrating the respective places at which the point of the instrument has arrived, and the course which it ought to take to attain its object, rendering therefore any computation of the length of the urethra useless as a guide in practice, although otherwise an object of curiosity. There is one urethra on the table eleven inches long, and another eight, and several of intermediate lengths, depending principally, it is true, on the pendulous portion for the difference, but not entirely; for the age and stature of a person, even after he has become an adult, often makes an essential difference, when compared with another in those parts which are more fixed. I place no reliance whatever on the measurement of the urethra made after death, for, although the urethra may be then eleven inches long, as in the preparation before you, I never met with a case, unless there was a diseased prostate, in which a catheter ten inches long was required to draw water; on the contrary, one eight inches long will generally be found sufficient, and I have known one of seven answer well; the additional inches being usually gained by the elongation or stretching of the parts during life or after death; and if a surgeon calculates inches as his instrument proceeds, instead of considering the points of attachment as so many land-marks to guide his progress, he will be frequently in error, and always liable to do mischief. I believe the mistake of most consequence takes place in regard to those two parts which are called *membranous* and *prostatic*. In the preparation before you, in which the urethra is eleven inches long, the length of these two portions is near three inches. From the orifice of the bladder to the triangular ligament, the usual length of the prostatic portion is estimated at about fifteen lines, the membranous at about twelve, or something more than an inch for the prostatic portion, and perhaps a little less than an inch for the membranous. In this very urethra, eleven inches long, I have no doubt but a catheter nine inches in length would easily have drawn off the urine during life. I am satisfied that one of eight inches would have done it, and the membranous and prostatic portions which now appear to be near three inches in length would have been cleared by an instrument very little more than

two, and this would occur from the manner in which these parts are supported and maintained against the pubes by the fasciæ which attach and connect them and the surrounding parts to each other. When the prostate is diseased, on the contrary, the urethra at this part admits of a considerable degree of elongation, and a catheter under such circumstances, should be longer and larger in the curve.

The length of the spongy portion of the urethra must always be uncertain, and is of no consequence. The orifice of the urethra when in a normal state is always vertical, and closed, the sides being applied to each other.

In addition to the excretory ducts to be found in the prostatic portion, two from Cowper's glands open into the bulbous portion. These glands are two small granular bodies, lying close but posterior to the bulb, yet separated from it by the anterior layer of the deep perineal fascia. The ducts which you see in this preparation pass upwards and forwards for something more than an inch, opening in general on the under surface of the urethra, by orifices so small that you will rarely find them except by squeezing the secretion through them. They appear to be sexual glands, and not connected with the excretion of urine, inasmuch as they are to be found in the female in a similar situation, with regard to the fascia, as in the male. Mr. Taylor, who made the greater part of these dissections, has shown them on each side in this preparation, with the excretory ducts opening into the vagina. He thought he had made a discovery; for, although Dr. William Hunter in his great work on the gravid uterus has shown the orifice of the duct, he considered it as a follicle only. The older anatomists were aware, however, of there being a gland in this situation, before they knew there were any of a similar kind in the male. De Graaf mentioned, and Cowper notices them in his Anatomy of the Human Body, when he was unacquainted with those in the male which now bear his name. There are many other openings from secreting surfaces in the spongy portion of the urethra; these generally appear in the median line on the under surface, and are called *lacunæ*, although some large ones are to be found on the upper surface: one larger than the rest is called the *lacuna magna*. It is shown in this preparation, something more than an inch from the orifice of the urethra, and is often nearer two. The orifices of all these lacunæ are turned forwards, and may catch the point of a small bougie; the lacuna magna, from having more often done this, has obtained its name of *magna*, rather, perhaps, than from its size; and when this occurs the bougie must be withdrawn a little and the point borne against the inferior portion of the urethra, against that part situated just before where it enters into the glans penis, and which is called *fossa navicularis*, not that any very distinct fossa can be shown. There is, however, a follicle here which is apt to become inflamed, and give a great deal of trouble in many cases of gonorrhœa; and when its excretory duct becomes closed or impervious, which it sometimes does, it gives rise to a very troublesome disease of the prepuce, which shall in due time be described.

The width or diameter of the urethra is so very uncertain, varying so much in different people, that it is scarcely worth while inquiring into it, more particularly as the passage of instruments is always regulated by the size of the orifice of admission. Taking as an example a well-formed urethra, the orifice will be found to be the smallest part, with relation to every portion of the passage. I know but of one exception, and that is in some few people whose orifice is rather large, and in whom the narrowest part is situated in sight, and about a quarter of an inch within it. This is a natural formation, and the person is perfectly sound, but this part is also sometimes the seat of stricture, in which case it should always be divided with a small blunt ended knife. The relief is immediate in the subsidence of the symptoms of irritation. From this part through the spongy portion the instrument will pass with perfect ease, until it reaches the commencement of the bulbous portion, where the urethra becomes a little narrower, and which diminution may become sensible, to the hand. This bulbous portion of the urethra is said to be larger than the anterior part, but I do not believe that it is so, although it may appear so from a slight contraction at the commencement of the membranous part, making it the smallest of all, except the orifice, which is invariably the least, both as to diameter or circumference, when dilated by a round instrument. As to the positive size of the urethra, I can only say I have a solid bougie, which is rather more than half an inch in diameter; I had it made for one gentleman in particular, and it passed with perfect ease through the whole passage. Very few urethræ will, however, admit a sound larger than from 12 to 16, this one is No. 20 of my scale, and the dimensions of the urethra are not influenced by the size of the penis, as far as I have been able to observe. The orifice of the urethra is, then, with the exception I have stated, the smallest part of the canal, and the least capable of extension, while every other part may be stretched to nearly twice its natural size without much difficulty, but the orifice scarcely yields without tearing, and this occurs from the peculiar dense structure of which its very edge is formed; a structure peculiar to the part, but in some degree analogous to that which forms the edge of the eyelid. If this be destroyed by ulceration, its value and utility is seen, for the part from which it has been removed contracts, and if the whole of the orifice has been deprived of its edge, the opening becomes so small as to act in a similar manner to a stricture, and to give rise to equally distressing symptoms,

whilst it is also the most difficult of cure. The evil seems to arise from the unyielding nature of the cicatrix, and the resistance which it opposes to the bladder, rather than to the small size of the opening, for in many persons the orifice of the urethra is not situated at the end of the penis, but quite underneath, about the middle of where the frænum is usually placed, in which case the opening is always a small one, scarcely ever admitting more than a No. 6 bougie, yet stricture never occurs in these people but as a consequence of disease, capable of giving rise to it in others differently formed. The orifice of the urethra, even when in its usual place, is often much below the medium size. This is often caused by a sort of valve or hymen, which passes across the lower part, and can be readily shown by a bent probe, on which it may be protruded and divided in all cases in which it is necessary to introduce instruments for the cure of strictures or the removal of calculi. The orifice may also be unnaturally small, although otherwise well formed, when compared with the size of the canal within, in which case it must also be divided. I do it always with a small, sharp, but strong iris knife, carrying it directly downwards, but the wound is apt to heal if care is not taken to keep the edges apart by introducing a bougie from time to time to separate them. It was the custom of a surgeon, eminent for his treatment of strictures in this town, some twenty years ago, to break down the orifice in almost all cases in which it would not admit a No. 16 bougie. He did it by introducing a triangular conical shaped instrument, and pressing it on until the orifice yielded; it generally did so downwards, but not always, and the torn parts rarely united again; but the practice appears barbarous, and would not be submitted to in the present time. It enabled him, however, to introduce larger instruments than he otherwise could have done, and thereby to effect a more permanent cure than could have been accomplished if the orifice had remained untouched, for a bougie which passes with ease through a small orifice of this kind, must be much smaller than any other part of the canal, and could not consequently dilate it.

When the orifice of the contracted urethra is even enlarged, the portion of the canal which is before you, and behind it, is still the smallest part of the whole; and in selecting an instrument for examining the passage you should choose one which will pass through this part with ease, and then, if well managed, it will meet with no obstacle, in a healthy urethra, in passing into the bladder, provided it has a proper curvature. The instrument I now show you is of solid steel plated, and was made by Mr. Stodart. In all common cases the patient stands before you, and you may introduce the sound with the convex part upwards, or with the handle turned towards the left groin, or with the concavity upwards. If the former, the instrument takes the course of the pendulous part of the urethra, and will be arrested by the bend the urethra makes in becoming so. This, which in short people is often an insurmountable obstacle when the instrument is retained in that position, is easily obviated, and indeed avoided altogether by turning the handle of the sound gently round, until it becomes perpendicular or vertical, the concave side being turned towards the patient, and the handle kept close to the body. Retained in this position, it is to be steadily, yet gently, pressed on until it appears to meet with an obstacle, or rather not to proceed, when, if the handle of the instrument be lowered, or brought directly downwards, the point of the instrument will slip into the bladder. If the surgeon has any doubt of the fact, he may ascertain it by bringing down the handle until it falls in a line drawn between the patient's ankles, when, if he feels that the point is free, he may be satisfied it cannot be any where else, unless he has used a degree of violence quite unsurgical, as well as unbearable. If, on lowering the handle, the point will not pass on, the handle must be again raised, carried close to the abdomen, and gently pressed again a little further into the urethra than it was before; when, on lowering it once more, it will slip into the bladder. These are the directions I give to gentlemen after they are cured of stricture, and I never fail to enable them to pass a bougie for themselves with ease. The natural obstacles, as they are called, which are to be met with after passing the bend caused by the pendulous part are two; one, according to Mons. Amussat, is caused by a fold of membrane passing from the urethra to the pendulous portion of the bulb; the other, by the edge of the triangular ligament which passes under the urethra. These are avoided by keeping the penis on the stretch, after the handle of the instrument is placed in the vertical direction, until it is lowered, and by bearing the point of the instrument against the upper surface of the passage. If this is done, and the handle of the sound is lowered too soon, the point is borne against the triangular ligament at that part where the urethra is firmly attached to it. This error is immediately perceived, and as soon rectified; but if, in gently passing the instrument on, it be too heavily pressed downwards, whilst the penis, and with it the urethra, are not sufficiently on the stretch, the point is carried below the inferior edge of the triangular ligament going under the urethra, and cannot proceed until it is extricated from this situation, by withdrawing the sound for the space of an inch, then bearing it steadily forwards, and against the upper surface of the urethra, until it has passed the obstacle. I had a man in this hospital in whom it was impossible to pass a sound but in one way, and then it was very easily done. I tried several surgeons, but none could succeed, until I showed them the method of

doing it, which I discovered by accident. It was to carry the point of the solid sound or bougie down to the obstacle, then withdraw it for an inch and pass it forwards; this never failed, but half an inch never succeeded, nor any less distance, however well the efforts were made in any other direction. You saw an instance this morning of an obstruction of this nature. The person came into the hospital unable to pass his water but by drops. He thought he had false passages, and all sorts of things besides; and it was really a difficult case. I can now pass No. 15,—you saw me do it several times, yet it met with obstructions each time, which rendered it necessary to change the direction of the point of the instrument, and a person not acquainted with this case might readily fail in passing even No. 5, and conclude that the patient had a very narrow stricture. These obstacles are formed, however, by unyielding parts external to the thin membrane of the urethra.

The two urethræ before you have been taken out with the triangular ligament, which has been separated from its attachment to the bones: and they have been slit open on their upper surfaces. If the points of attachment of the triangular ligament are held steadily on each side, and the urethra is put on the stretch, you see most clearly the ridge the ligament forms under the urethra. If these attachments are left loose, whilst the urethra is stretched by the left hand, the other end or bladder being held by another person, and the fore finger of the right hand is run along the under surface of the urethra, it will meet with a little depression or fold which impedes the progress of the finger, and nearly in the same situation; this, M. Amussat affirms, causes the obstacle met with in passing a bougie, rather than the triangular ligament. This fold is formed, according to his account, by the interior fibrous membrane of the corpus spongiosum, which, passing outwardly where the bulb separates from the urethra, forms a sort of bridle around it; but I suspect he is mistaken in attributing so much to it. When a side view of the pelvis is made, as you see in this preparation, the attachment of the triangular ligament is cut away on the left side, the resistance it would otherwise make is obviated, and the point of the instrument is seen to catch on the fold in question, if the point is borne steadily against the under surface of the urethra. If you will make, gentlemen, two dissections, one, a front view of the triangular ligament, carefully removing all the parts around it, except the urethra, the other being a side view of the pelvis, you will more readily learn how to pass instruments into the bladder, and to note the obstructions, than by any other means.

If a straight instrument is to be passed into the bladder, the horizontal position of the pubes is to be remembered, and the attachment of the urethra to it, through the triangular ligament, for the extent of its bulbous portion. By raising and gently stretching the penis, the urethra may be brought into a straight although an inclined line, commencing at the orifice, but not going on to the bladder. On the contrary, it passes through the membranous part of the urethra only, and terminates at that part which is embraced by the transverse portion of the prostate, against which, even if it escapes the other obstacles before alluded to, it is sure to strike. In a healthy urethra, by withdrawing the point a little, by letting the penis loose, and by a dexterous lowering of the handle, the attachment of the upper surface of the urethra to the triangular ligament being thus made the fulcrum, the point is tilted over the anterior edge of the prostate, and then passes readily into the bladder. It is sometimes, however, necessary to introduce a finger into the rectum to effect this object. When a straight sound is passed, the patient should be laid on his back, with his legs drawn up, and his body a little bent forwards, to favour the formation of an inclined plane of the urethra. The rectum should be previously emptied that the prostatic portion of the urethra may not be elevated.

When the patient has an enlarged prostate, and the urethra behind the triangular ligament is lengthened, as well as altered in its direction, the catheter should have a different shape from the common one. It ought to be fourteen inches long, a No. 12 in size, quite round at the point, with small round holes at the sides of the end, and with a large curve. It should be passed down to the obstacle, for the purpose of ascertaining the distance only. This being done, it is to be withdrawn a little, and, as the patient lies on his back, with his legs drawn up, the shoulders being a little supported, the point is to be hooked beneath the pubes, the shaft of the instrument making a right angle with the body; the surgeon now makes his calculation, not as to how many inches, but as to the exact situation of the point of his instrument, which should be just entering the membranous part, and yet be past the triangular ligament, and so far clear of the bone, although hooked against it, that it will, on depressing the handle of the catheter, carry the upper surface of the urethra, as near as may be, against the inner surface of the pubes, and, by this manœuvre, ride over the enlarged portion of the prostate, which we will say, generally speaking, does not surround the upper part of the urethra, and therefore admits of this being done. To do this, the concave, or upper surface of the catheter, must be firmly applied to the under surface of the pubis, from which position it slips upwards, or towards the wall of the abdomen as the handle is depressed. If the point be allowed to advance, by quitting the pubes, it will only get into the bladder by passing through the substance of the prostate, which sometimes happens, and does less mischief than might be supposed, as it is frequently only discovered

after death. This act of depressing the handle must be steadily done, it also requires some little force as well as dexterity, and will not always succeed on the first attempts. The patient and the surgeon have both a great stake at issue, for if it does not succeed, and a gum-elastic catheter is not more successful, the bladder must be opened, either above or below the pubes. So much for the present, gentlemen, of solid instruments; let me beg of you never to miss an opportunity of passing them; it is practice only can give dexterity.

NAVAL MEDICAL SERVICE.

THE following regulations for the education of surgeons in the navy have just been issued from the Admiralty. The principal changes that have been made since the last were promulgated are, first, that candidates will be required to produce proof of having received a classical education; secondly, that they shall have attended clinical lectures on the practice and principles of surgery; thirdly, that natural history should be included amongst those sciences which, though not indispensable, are considered as adding to the qualifications; fourthly, that no assistant surgeon can be promoted to the rank of surgeon until he shall have served three years in the former capacity, one of which must be in a ship actually employed at sea. The only objection that can be raised against these regulations is, that certificates of lectures are not to be admitted for more than two subjects delivered by one individual. In most of the schools of London the theory and practice of medicine are treated of by the same professor; and as they form two different branches of medical science, the student would be precluded attending the clinical lectures delivered by a professor thus engaged, although it is of the utmost consequence that he should attend clinical lectures, which would illustrate those he hears on the practice of physic. In every other respect we are highly satisfied with these rules; they will render the medical department of the navy respectable and useful. The greatest praise is due to Sir William Burnett, under whose especial care this branch of public service has attained a high and well-deserved character. The surgeons of the navy have every reason to be satisfied with the exertions of their chief; and the candidates for admission into the service have uniformly spoken of his urbanity, and of his kindness in promoting their interests.

"*Department of the Physician of the Navy.*

"*Admiralty Office,*
"*Somerset House,*
"*May* 15, 1833.

"THE right hon. the Lords Commissioners of the Admiralty having been pleased to direct 'that no person be admitted to be a candidate for the situation of assistant-surgeon in the royal navy who shall not produce a certificate from one of the Royal Colleges of Surgeons of London, Edinburgh, and Dublin, of his fitness for that office; nor for that of surgeon, unless he shall produce a diploma or certificate from one of the said royal colleges, founded on an examination to be passed subsequently to his appointment of assistant-surgeon, as to the candidate's fitness for the situation of surgeon in the navy; and that in every case the candidate producing such certificate or diploma shall also undergo a further examination before the physician of the navy, touching his qualifications in all the necessary branches and points of medicine and surgery for each of the steps in the naval medical service;' the Physician of the Navy doth hereby signify, for the information of those persons to whom it may relate, that these regulations and directions will be strictly adhered to: and further, that previously to the admission of assistant-surgeons into the navy, it will be required that they produce proof of having received a classical education, and that they possess in particular a competent knowledge of Latin: also

"That they have served an apprenticeship, or have been employed in an apothecary's shop for not less than two years.

"That their age be not less than twenty years, nor more than twenty-six years; and that they are unmarried.

"That they have attended an hospital in London, Edinburgh, Dublin, or Glasgow, for twelve months.

"That they have been engaged in actual dissections of the human body twelve months; and

"That they have attended lectures, &c. on the following subjects, at established schools of eminence, for periods not less than hereunder stated; observing, however, that such lectures will not be admitted for more than two different branches of science, by one individual, viz.

	Months
Anatomy	18
Surgery	18
Theory of Medicine	6
Practice of ditto	12
Clinical Lectures on the practice of Medicine and Surgery	6
Chemistry	6
Materia Medica	6
Midwifery	6
Botany	6

"Although the above are the only qualifications which are absolutely required in candidates for the appointment of assistant surgeon, a preference will be given to those who, by possessing a knowledge of the diseases of the eye, and of any branch of science connected with the profession, such as medical jurisprudence, natural history, natural philosophy, &c. appear to be more peculiarly eligible for admission into the service.

"It is also to be observed, that by the rules of the service, no assistant surgeon can be promoted to the rank of surgeon until he shall have served three years in the former capacity, one year of which must be in a ship actually employed at sea; and it is resolved that any diploma or certificate of examination from either of the aforesaid royal colleges, shall be admitted towards the qualification for surgeon, unless the diploma or certificate shall be obtained on an examination passed after a period of not less than three years from the date of the party's admission into the service; and whenever assistant surgeons already in the service (whose professional education may not be in accordance with the above,) obtain leave to study previously to their passing for surgeon, they will be required on their examination to produce testimonials of their having availed themselves of the period of leave to complete their education agreeably to these regulations.

"W. BURNETT,
"*Physician of the Navy.*"

OBSERVATIONS ON THE SMALL POX.

BY POWELL CHARLES BLACKETT, ESQ.

IT is well known that the small pox belongs to that class of diseases which consists of fevers, followed in three, four, or five days with little inflammations on the skin, which cure the fever; and these go through their whole course so as to constitute the disease. This disease was unknown to the ancients, undoubtedly; and it has been generally supposed that such diseases existed in some country which the Greeks were unacquainted with, and propagated from thence. Now, the first mention we have of this disease was by an Arabian author, of the name of Rhazes, who lived at Bagdat, about one hundred and fifty years after Mohammed, who does not treat of it as a new disease. At that time there was no country discovered by the Arabians which was not known to the ancients; this is confirmed by the generals who traversed these countries with their armies at that time: for Xenophon with ten thousand Greeks had penetrated Persia, through Circassia, as far as the Caspian Sea; and the busts at Rome evidently show that the Romans were acquainted with Negroland. Alexander's fleet, also, sailed round the southern point of Africa, and his army penetrated into India. From what region the small pox came we do not know; we might suppose that new diseases were sometimes produced to excite human in-

dustry, but that cannot be the case, as the faculty had not then learned to cure all the old ones.

The opinion among modern practitioners is, that these diseases were brought from some foreign country; but those who are at all acquainted with geography will see that it could not come from any country that was unknown to the ancients in the old world. At the siege of Mecca this disease prevailed, owing to the state of that town during the time.

This disease produces an infectious matter, and is propagated by particles of that matter being carried in the air; and hence we are led to believe that they are conveyed to the nose and throat from their being affected before the small pox appears. But this is not always the case, as the infectious matter will often remain latent in the body for some time before variola.

We can propagate this disease by inserting the matter into a wound for the purpose. The matter so inserted is taken up by the absorbents; and it often happens we can trace it up the arm along the absorbent vessels till it reaches the axilla and then the heart, when the fever commences. Some have supposed that the alteration was in consequence of an affection and change in the blood; others that insects, &c. were generated; and, in short, many other idle suppositions have been thrown out.

When we introduce the matter, it is generally eight days before the disease is developed. It is true, in the small pox, that the moment the fever takes place the variolous matter has no further effect on the system. If a patient to day should receive, naturally, variolous infection, and to-morrow be inoculated, the natural infection will be destroyed, and the disease will probably be mild; and more, if a patient for two, three, or more days should have received, naturally, variolous infection, and you vaccinate before the fifth day, the natural infection will be destroyed in part, so much so that the vaccination will run its course, and not till then will you have the least appearance of variolous infection, which will be mild; so much so, that in many cases it will scarcely be perceptible.

The patient is seized with headach, languor, &c., &c., till a perfect paroxysm of fever comes on. If we do not know the patient has had the small pox, we should not distinguish it from a common attack of fever. In warm climates it commonly assumes the intermittent type, in this country most commonly the continued, and often appears inflammatory at its accession. The fever goes on commonly for three days, and on the beginning of the fourth or fifth day an eruption takes place; there arise commonly at the evening, about nine to eleven o'clock, some eruptions, but the principal part of the eruption is about four or five in the morning, and the fever is greatly diminished. On the next morning and evening a second eruption is seen, and the fever is still more relieved. Commonly in the next exacerbation a fresh eruption breaks out, and the fever goes off. The eruption which commences at first is often both phlegmonous and erysipelatous: they go on to suppuration.

This shows the course of the small pox, in regard to infectious matter, which may be applied either floating in the air to the lungs, stomach, &c. producing the natural small pox, or where variolous matter may be applied to a wound, which we call inoculation; when applied to a wound we have observed it produce the same disease sooner than when applied to the lungs, &c. &c., by the air. We have observed that the first symptoms it produced was a fever, similar to those produced from any other cause, that this fever terminated in the fourth or fifth day, in a number of little pustules, attended with erysipelatous and phlegmonous inflammation, that the first went off, and that the second continued; that these phlegmons, after continuing to come out for three or four days, went on to suppuration. When there are few of these pustules, in about the seventh

day, or rather later, the suppuration is completed, when there is a greater number, or confluent, as they are called, the suppuration does not terminate till the thirteenth or fourteenth day. The danger is commonly from the number of pustules, from the effect which they have on the system, producing general inflammation, which is sometimes in that degree as to prove fatal: on the other hand, they produce symptoms of irritation also to prove fatal. In this case the matter in the pustules is thin and watery, stimulating from its acrid qualities the vessels, &c. which causes considerable erysipelatous inflammation; these symptoms of irritation go on till the patient dies from them, purely on the depression of strength. There are other dangers in this disease from the number of pustules on the exterior parts, a great degree of inflammation attended with increased circulation takes place, these producing universal tension or constriction, which is apt to go off suddenly, hence the patient sinks, or if the external circulation goes on, the internal secretions are checked, putrid matters (if we may use the term,) are apt to remain in the intestines, and the whole internal functions are deranged. There is yet another mischief, which is, that when there is a great number of pustules, the throat is commonly inflamed, and there is an increased secretion from the salivary glands, which secretion, if not checked, is favourable, unless it runs to ulceration; but if erysipelatous inflammation should take place in the throat, and the salivary glands through their ducts cease to throw out their secretions, then must be expected gangrene, which generally terminates the sufferings of the patient in a few days.

In the next place, the seasons of the year are to be considered, in regard of which is the most salutary for a patient, when labouring under this pestilential complaint.

The season of the year most favourable is certainly the spring, because in it all phlegmons go on well to suppuration; it will be found, that in the summer the heat is too great, increasing irritability; in the winter we cannot give the patient a sufficient quantity of air, for from exposure many patients have died from affections of the lungs, &c. &c., induced by it, and in the autumn there is a disposition to purgings, which often occasion a sinking of the pustules. However, if a person is liable to infection, we should not hesitate to inoculate at any time of the year, if vaccine lymph cannot be procured. If parents will not allow their children to be vaccinated, it is then our duty to inoculate, in order to save life. Now if we knew of any state of the body in which the small pox was more favourable than any other state, we might produce that state, or if we knew of any medicine that could counteract the effect of the variolous matter, so as for less fever and eruption to be produced, it would be necessary to put the patient in that state, and to give him such medicine, but we know of no medicine for this purpose. The idea of preparation has gone not only to the small pox, but various other diseases; it was the practice in infirmaries, hospitals, &c., formerly, to prepare old as well as young patients with a month's regimen on soups, milk, vegetable diet, &c. I mean principally to point out by this the mischief of such preparations, by which the body has been rendered debilitated or rather diseased.

Yet it seems rather necessary that the patient should in some degree avoid animal food, the primæ viæ should be cleared by a gentle laxative. In itself, it is of no consequence what time we take the variolous matter after the eruptive fever; we may take it from the confluent kind as well as the distinct. I have known several individuals, nay, even whole families, inoculated with impunity with the variolous matter taken from dead subjects. Yet three diseases can be propagated by inoculation be-

side the small pox; for instance, the itch, cancer, and venereal diseases, by taking the matter too close, as to be mixed with a particle of the blood of the person the matter is taken from; hence the danger of vaccination where there is a great lack of lymph, and more so from the carelessness of the operators; but it has seldom or never happened that either of these were ever inoculated with the small pox. I wish I could say as much for vaccination.

With regard to the operative part of inoculation or vaccination we are to observe that the less we make the wound the better, a small one answering all the purposes of a large one, without endangering an increase or violence of the disease. The lancet should be inserted obliquely between the cuticle and cutis, and care should be taken that the matter or lymph be introduced,—this forms inoculation or vaccination; we should then wait about three days, in which time a little redness takes place, and is a certain mark of infection; but if there should be no redness, it will be safe to repeat the operation, without any detriment to the system,—(three or four punctures may be made one day after the other). The fever not being increased by it, as the first infection annihilates all the others.

The method of treating this disease is the same, whether the small pox be produced in the natural way or by inoculation. In the first place, when the fever comes on, if we know any means by which the number of pustules could be lessened, it would be of great utility; but at present we do not know: yet, supposing we knew it to be the fever preceding the small pox, if the patient be of a sanguineous temperament, and of a strong healthy appearance, we might take away advantageously a quantity of blood, and in some measure lessen the violence of the attack. But, excepting in this case and in general inflammation from the fever, it is not found necessary, nay, even advisable, to bleed. Neither have relaxants, or blisters, &c., been of much use. The best means are to clear the primæ viæ by administering emetics and gentle laxatives. If we are not assured it is a fever preceding the small pox, we may treat it as a common one, without the least disadvantage. When the inflammation has taken place, it must go on to suppuration; therefore, if it be going on well, it is unnecessary to employ any remedy, but we may give saline medicines with camphorated julep, &c., to amuse the patient, and satisfy the friends, lest they should think the patient neglected. (This shows that it is a better plan to pay medical men for their visits, than the plan of drenching, which they are generally obliged to adopt to get remunerated.) We should always omit giving every medicine producing any effect on the system, provided the suppuration goes on well, for while we are lessening one mischief we are perhaps increasing another; we should therefore leave a great deal to nature, taking care to bestow on her pure air, especially when the lungs, &c. are affected, and there is some difficulty of respiration. We should keep the patient in a cool air, not in bed, if possible, but in his ordinary night clothing; for the heat of the bed, &c., adds a stimulus to the system, and increases the tension, &c. We should above all endeavour to avoid exposing the patient suddenly to a cold air: and animal food heats and increases the constriction or tension of the body. We should employ vegetables of the firmer kind; those of a soft sort are apt to produce flatulencies, purgings, &c. We should always obviate costiveness by means of laxatives, clysters, &c., for fæces accumulated in the intestines add very much to the increase of bad symptoms. If there should be symptoms of general inflammation with a hard and full pulse, and a stupor attended with delirium, which is truly a dangerous symptom, we ought to take away a certain quantity of blood; but not unless the head be much or somewhat affected, even if the other

symptoms of general inflammation should be considerable, as we may produce so sudden and great a sinking of the pustules as to prove suddenly fatal. If symptoms of irritation should take place, with great soreness of the skin, throat, &c., the pustules appearing watery, &c., attended with erysipelas between them, if the pulse should be small, though hard, tonics should be employed to promote a good suppuration. Bark is contra-indicated, inasmuch as it frequently affects the respiration to such a degree as sometimes to be fatal; it is also apt to produce affection of the head in this stage, so that it requires a comparative experiment to see whether it can be employed to advantage or not. It seems, indeed, notwithstanding the mischief it may perhaps produce, that when bad suppuration has taken place, bark, or the sulphate of quinine should be employed in large doses. Acids have been employed for this purpose, but with little effect. Opium has been employed more advantageously for this purpose, but in this case opium is contra-indicated; and indeed if the patient enjoyed a tolerable share of sleep, I should rather choose to omit it, though, indeed, we have the authority of Sydenham and others for employing it in large doses, an authority founded on accurate observation and experience. If there should be great soreness in the throat we should employ gargles; when the expectoration is difficult, and a quantity of thick mucus is in the trachea, &c., we would readily employ expectorants, but they are improper, and generally there is not a great deal of mischief, till about the suppuration of the pustules; when there is some danger of suffocation at this time, an emetic will then be serviceable. If, from any accident, the pustules should sink, we may employ a stimulus to throw them, if possible, on the surface again,—such as a little warm wine, or wine and water, &c. It is, however, highly improper to employ such stimulants constantly, and except when there is a great necessity. If a purging should arise, it will be better to let it continue for a day or two; if, however, it should continue, and put a stop to the rising of the pustules, we should stop it by means of opium and aromatics. It has been proposed to employ blisters during the eruption; as they tend to irritate more, they do mischief at the time of maturation becoming perfect; yet, if the legs and arms do not swell, stimulating them by means of blisters or sinapisms is of good effect. If by these means we can produce tension, &c., in the extremities, we prevent it going off suddenly in the head. After the eruption is gone off, and tumefaction has subsided, it now and then happens that some symptoms of general inflammation take place,—it will then be necessary to bleed. Sometimes from pustules translations of matter will take place, when we ought to employ purgatives to carry off the inflammation brought on in consequence. It frequently happens of the small pox, that there is a disposition to inflammatory affections; this, after the cause is removed, is best taken off by tonics, such as bark, sulphate of quinine, &c.

MEETING AT THE ROYAL COLLEGE OF PHYSICIANS.

THE meetings of learned societies in this metropolis afford to the amateur and man of science a vast fund of instruction and rational amusement. At a meeting of the College of Physicians on Monday evening, the learned President entertained the company with a profound and curious inquest on the causes of death in certain eminent characters amongst the ancients; and on the poisons known in days of yore. This investigation, by the modern touchstone of science, afforded an entertainment of great interest*. We were informed that the bursting of an internal abscess from rage or a fit of passion put a period to the valuable

* See the *Times* of May 28th.

life of Scylla; and that a pleurisy terminated the mortal career of Crassus. Pomponius Atticus was said to have died of a fistula in the loins; but Sir Henry Halford thinks it was an affection of the lower bowel from dysentery. As to poisons, "those known to the ancients were aconite, white poppy, hyoscyamus, and hemlock:"—probably many others. He despaired of ever satisfactorily ascertaining what the poison was which destroyed Hannibal; this I believe will not be regarded as a matter of very great importance at the present day. Alexander the Great (great murderer?) was not poisoned, but really died of a remittent fever at Babylon. Sir Henry very rationally considered it to have been induced by fatigue and the miasmata of the Babylonish lakes. He eulogised the character of this famous warrior, and observed that the British power in India is maintained by the very same means as those devised and acted on by Alexander. He doubtless understood how to set others by the ears or cutting each others' throats, and thus to maintain his own honour and glory at the expense of his neighbours.

Sir Henry has proved, most incontrovertibly, that bullocks' blood is not poisonous. This must be especially gratifying to John Bull, and all those who are partial to a raw beef-steak with the blood in it.

As to the poison of Prussic acid, the learned President observes, that "the species of *Laurus* which yields the deleterious liquid (laurel water) did not grow in Italy, but was a native of Colchis, from whence it might have been brought. The laurus nobilis grew about Rome, and was used in producing the inspirations of the prophetic priestesses." The subject perhaps has not been correctly reported; but the well-earned fame of Sir H. Halford will not suffer from newspaper scribblers. It was not a species of laurus which yielded the poison, but the laurel-leaved cherry, a species of prunus. Sir Henry, indeed, appears to be aware of this; but the very act of naming them together as *species of laurus* serves to perpetuate a prevalent error, which ascribes Prussic acid to the sweet bay (laurus nobilis or Daphne of the Greeks), for which it appears there is no foundation*. The bay, indeed, has been commended (by Haller and others) as the best antidote to the poison of the lauro-cerasus, and its exciting properties might perhaps give it some effect as a counter-agent to one of opposite or depressing powers. So ammonia, a high stimulant, has been used for the same purpose†, and that for hundreds of years past.

Experiments with this poison prove that, like the worary, it acts on the nervous system without giving the least warning by vascular excitement: these, therefore, may be considered as two of the most dangerous of poisons; yet, however similar in action, the one is extremely volatile, the other a fixed principle—an extract or residue after long boiling. Received by inoculation, they both appear to exert the same physiological effects; but the worary may be taken internally, or rubbed on the skin without injury, whilst prussic acid is equally destructive, whether received by the mouth, introduced by puncture, or otherwise applied to any part of the body. It would appear, from Baile's experiments, to possess a singular power of diluting the blood‡, and he has highly recommended it in certain diseases, as in rheumatism, asthma, cancer, &c. Linnæus considered it as one of the most useful remedies in cough and pulmonary complaints.

The leaves of the *lauro-cerasus* are

* Most, if not all, of our late writers on Materia Medica appear to have fallen into the error here adverted to—confounding the laurus nobilis with the prunus lauro-cerasus of Linnæus—as first pointed out in a paper read before the Med. Bot. Society, and noticed in the Medical Gazette for July 9th, 1831.

† See Mead on Poisons. It is rather extraordinary that the same has lately been contended for as a discovery of the present age, having been attributed to Orfila, Murray, and even to M. Chabert.

‡ We may observe here, that opium has had the same power ascribed to it by Salmon, Willis, and others.

here meant, or *cherry laurel* so termed, rather unfortunately, for it affords an instance of the danger of assimilating plants so opposite in their nature under the same name. J. H.

THE

London Medical & Surgical Journal

Saturday, June 22, 1833.

THE ROYAL COLLEGE OF PHYSICIANS. QUACKERY.

If ever a charter was deservedly forfeited it is that by which the Royal College of Physicians exerts its morbid influence over the profession. That document ought to be destroyed, for not one of the intentions for which it was drawn up has been fulfilled. It has only served as a by-word by which a few ill educated men have been enabled to lord it with a high and mighty sway over their superiors. The most important charge committed to that immaculate and illustrious body was the prevention of quackery, and the careful and diligent watching lest the health and welfare of the great community should be allowed to fall into the hands of the ignorant pretender and the contemptible quack. The Charter was given, to use the quaint but intelligible language of our forefathers, "for the security and comfort of all manner of people;" and nothing can more forcibly illustrate this than the circumstances which called it forth. "Forasmuch as the science and cunning of physic and surgery (to the perfect knowledge whereof be requisite both great learning and ripe experience) is daily, within this realm, exercised by a great multitude of ignorant persons, of whom the chief part have no manner of insight in the same, nor in any other kind of learning; some, also, can no letters on the book, so far forth, that common artificers, as smiths, weavers, and women boldly and accustomably take upon them great cures, and things of great difficulty, in which they partly use sorcery and witchcraft, partly apply such medicines unto the disease as be very noxious, and nothing meet therefor; to the high displeasure of God, great infamy to the Faculty, and to the grievous hurt, damage, and destruction of many of the king's liege people, most especially of them that cannot discern the uncunning from the cunning;" for this purpose the College had the power of punishing delinquents, "per fines, amerciamenta, et imprisonamenta corpor' suor' et per alias vias rationab' et congruas." How have these duties been performed? Has the public been protected from the baneful effects of ignorance, impudence, and folly?—never. Not only have men silently and quietly made inroads upon the duties of the medical profession, but they have insinuated themselves into practice;—they have boldly and daringly stepped forth, loudly proclaimed their superiority, laughed and scoffed at the industry, the education, and the anxieties of those whom they have supplanted. No attempt has been made to exhibit in his true light the wary impostor who has cheated and poisoned the public. No salutary check has been received; but the

poor open-mouthed dupes have been allowed to be impudently imposed upon even by the lowest dregs of society; but if a good and upright man, conscious of his own integrity, relying upon the education he has received, and adorned with the sanction of a Scotch diploma, has ventured to call in question the powers of the College, he has been summoned to appear before the public tribunals, and has been required to pay heavy fines,—whilst a whole list of vagabonds have been allowed to decoy their victims by specious promises, boldly promulgated through the newspapers of the day, which teemed with language offensive to truth, to honesty, and to public decency,—the College was employed in treating with contemptuous sneers the practical science of Armstrong, the classic lore of Mason Good, and the industrious exertions of Hooper. Can such things be forgotten? Will the profession and the public longer submit to such a series of misgovernment as has marked the whole career of that chartered body, whose authority rests upon virtuous principles, but whose actions are worthy reprobation? The College of Physicians is the only constituted authority to which the public looks for protection, and that protection ought to be loudly demanded.

Among the popular beliefs of the day is the virtue of Morison's pills. The scientific man laughs at the idea of any individual in his senses employing them; but the great mass of men are not scientific; like a drove of sheep, they follow the one they think most experienced. Would it be unbecoming the dignity of the Royal College to point out to the people the composition of these "vegetable pills," and to show how perfectly incapable they are of performing the promises that are so speciously held out? Do the advertisements of Messrs. Goss and Co. never fall before the eyes of any Fellow of the College? Is the name of Dr. Eady unknown to them? Does St. John Long still carry on his practice? These are questions, relative to which no answer could be heard within the walls of the splendid building in Pall Mall. There the only subjects that are considered worthy discussion are the infliction of bills of pains and penalties upon those who have learnt in any school where medicine is actually taught.

It is true, that these illustrious quacks, to whom we have alluded, are not so frequent as they once were, and that these poor half-witted men of the present day bear no comparison with the men of renown, the heroes of the times of old, whose books amuse us to this hour. Who could find fault with the Chevalier Taylor, the ophthalmiater "pontifical, imperial, and royal; author of forty-five works in different languages, the produce of upwards of thirty years, of the greatest practice in the cure of distempered eyes of any in the age we live, who has been in every court, kingdom, province, state, city, and town of the least consideration in all Europe, without exception; whose work contains all most worthy the attention of a traveller; also a dissertation on the art of pleasing

with the most interesting observations on the force of prejudice; numberless adventures, as well amongst nuns and friars as with persons in high life, with a description of a great variety of the most admirable relations, which though told *in his well known peculiar manner*, each one is strictly true, and within the Chevalier's own observations and knowledge. Interspersed with the sentiments of crowned heads, &c. in favour of his enterprises, and an address to the public, showing that his profession is distinct and independent of every other part of physic, introduced by an humble appeal of the author to the sovereigns of Europe." Here is a glorious title page to a very wonderful volume, which professes to cure every disease of the eye, and to be worthy the consideration of universities, academies, and societies of the learned; but he was thrown into the shade by the great, the immortal James Graham, M.D., who established a temple of health, first in the Adelphi, then in Pall Mall, and called himself President of the Council of Health, and wrote innumerable "Guides to Health, Guardians of Health, long life and happiness, affectionately addressed to every reasonable and candid person who wishes to be healthy, respectable, and truly happy." This individual was perhaps the most extraordinary of all those quacks, who have figured upon the English stage, and we shall in a future Number give a little outline of his career. After him came two men, each of them admirably fitted to gull John Bull, and both of whom amassed, at his expense, very large fortunes; Dr. Solomon, the renowned discoverer of the Balm of Gilead, and Dr. Brodum, whose nervous cordial was at one period in the highest repute. The latter of these gentlemen followed his avocations in London, nor did the members of the College disdain to partake of his hospitality, which was always upon a most splendid and lavish scale; but, on one occasion, the wary empiric caught them in a trap, of which he made due use. They were, during dinner, obliged to be unwilling witnesses of a declaration to a man, that his life and that of his wife were saved by the Doctor's skill; and the following morning, the newspapers blazed with the narrative of the man, and those who doubted its truth were referred to the physicians present. After these great and illustrious men in their calling, whose lives would furnish a most interesting page in biography, have succeeded a band of men, more obnoxious but less clever and intelligent; for those we have named were really men of superior minds, which, if properly cultivated, might have been advantageously employed for the happiness of man. But whatever the mental qualifications of the present race of charlatans and of mountebanks may be, we call upon the Royal College of Physicians to show that the charter is no longer a piece of parchment with a few unintelligible words scrawled upon it, but a document which good sense and truth might acknowledge and reverence.

The Apothecaries' Bill has been read a second time; as usual, our legislators have taken a very narrow view of the subject. We deeply regret that no sensible and straightforward plan is likely to be followed. We shall shortly, of course, have "a bill to amend so much of a bill as was passed in the year 1833."

THE FACTORY COMMISSION.

The labours of the sapient commissioners, in weighing and measuring the unfortunate victims in factories, has been suddenly discontinued by the government, and a bill has been brought into parliament to limit the period of labour. We proved that the commission was totally unnecessary, and a useless expense to the country.

LONDON UNIVERSITY.

Mr. Potter presented a petition to the House of Commons from a Unitarian congregation of Salford (we think he said), praying that the barrier to the admissions of the youths of Dissenters into the Universities of Oxford and Cambridge, contained in the Thirty-nine Articles, might be removed, or that an Address might be presented to his Majesty that a charter might be granted to the London University. He was happy to find that the Hon. Member for Truro had given notice for a motion for such an Address to be presented to his Majesty. He understood that a charter to the London University had been all but prepared; that the fees for it, amounting to 268*l.*, had been all but paid some months ago, and that even the King's signature had been affixed to it; but that still, from some cause or other, it had not yet been granted—(*hear*). He trusted that much more delay would not be allowed to take place before it was granted, as he most cordially concurred in the prayer of the petition.

Mr. Tooke said he was happy to state that, from the encouragement he had received he was induced to entertain great confidence that, when (on the 4th July) he brought forward his motion, respecting the London University, he should receive very large support from the House (*hear*).

APOTHECARIES' COMPANY.—HOUSE OF COMMONS.

The following are the most important observations which were made in the House of Commons during the debate on the Apothecaries' Amendment Bill. Would that amongst our legislators a little more of that rare but valuable specific against humbug, called common sense, could possibly be found.

Mr. M. Hill said, he hoped that as the lawyers had given up the pedantry of writing Latin, the physicians would condescend to give their prescriptions in plain English, which would, perhaps, be the means of preventing some accidents. He rose, however, for the purpose of respectfully suggesting to the hon. Secretary who brought in the Bill the propriety of taking care that the interests of the provincial schools of medicine and surgery in England were duly attended to in his Bill. Many of them were of high repute, and well they deserved it. He hoped their certificates would be made to have their due weight in the new Act. It was of great importance that young men should obtain a good education at home, and not be sent too young to the metropolis, a source of great expense to their parents, and of danger to themselves. With respect to a petition from Mr. Smith, he felt the hardship under which the petitioner laboured, and he hoped to see the time when no prosecutor would be able to change the venue, and thus throw expense on the defendant without being compelled to reimburse a

poor man for those extra costs. He did not see, when a defendant could be tried on the spot, that he should be compelled to go with his witnesses forty miles to another place at his own expense. He said the state of the Trinity House at Hull called for inquiry. As to the Registry Bill petition, he was happy to bear testimony to the high respectability of the gentlemen who had signed it; their opinion as practical men, and persons deeply interested, was worthy of attention. He regretted being obliged to differ with them in their conclusion.

Mr. Ruthven hoped some step would be taken, in bringing forward the new Apothecaries' Act, to secure the public against danger from the incompetency of medical apprentices to read prescriptions.

Mr. Briscoe trusted that the Apothecaries' Bill would be referred to a committee; that certainly no step would be taken to repeal the present law respecting apothecaries, except on the fullest information as to its utility and necessity. It was of the highest importance that the poor and others should be protected against ignorant pretenders to skill in medicine. (*hear.*)

Dr. Baldwin complained that the proposed Bill for amending the Apothecaries' Act did not contemplate giving to the members of the English and Irish colleges the same privileges it was intended to confer on the graduates of two or three of the Scotch universities.

Mr. H. Hughes added his testimony to that of his hon. friend as to the necessity of referring the subject to a select committee, to which he hoped the hon. Secretary would have no objection.

Mr. Hawes said he was of opinion, from the communication he had had with many respectable practitioners, that the subject ought to be referred to a committee. It was necessary that the poor should be guarded from the practices of ignorant practitioners, as it was the poor who suffered by that ignorance, and not the rich, who could afford to get the best and most talented advice.

Mr. Lamb admitted the importance of the question, and the necessity of not proceeding without the amplest information, but declared that he considered the privileges at present enjoyed by the Company of Apothecaries were of an injurious and too extensive a character. Although he introduced the Bill he was not pledged to all the details, and indeed he had deferred it, partly that time might be given to render it as effectual as possible. He thought that under the present system there was a very injurious monopoly, and that some regulations should be made as to the mode and period of apprenticeship. Under ignorant practitioners the apprentices only learned bad Latin. He should have no objection to the appointment of a committee to consider the details of the Bill, but he could not consent to refer so large a subject as the whole study of medicine and quackery to the same tribunal. It was his intention to proceed with the Bill this session.

Mr. Hume said in the House of Commons on Tuesday night, that the examinations at Edinburgh were carried on with the greatest strictness upon pharmacy, anatomy, surgery, and medicine; and the examinations upon pharmacy were much stricter than were those carried on by the Apothecaries' Company. All the Apothecaries' Company wanted was monopoly. The government and the public were deprived of the services of many of the ablest scientific men who were educated in Edinburgh and Glasgow. He believed that a committee was not merely requisite and necessary for the benefit of the public and the practitioner, that the monopoly of the Apothecaries' Company should be done away with, but also the monopoly of the Colleges of Physicians and Surgeons. He hoped next session some hon. gentleman would introduce and carry a measure for that purpose.

Mr. G. Lamb then brought in the

bill, and said that he had seen all parties concerned, and that some amendments were proposed, which he should think it his duty to introduce.

A SHORT ACCOUNT OF THE EARLY HISTORY OF CHEMISTRY, OR, AS IT WAS CALLED BY THE ARABIANS, ALCHEMY.

Abridged from the Encyclopædia Britannica.

(PART II. *Concluded from page* 634.)

THE life of this remarkable man will prove interesting. John Baptist Van Helmont was a gentleman of Brabant, born 1577 in Brussels, he studied till he was seventeen years of age at Louvain; he afterwards associated himself with Jesuits, but was disappointed in the knowledge that he expected from them, and he was no better satisfied with the doctrine of the Stoics. He made himself master of the works of Hippocrates and Galen, but he soon became disgusted with the writings of the Greeks. He happened to pick up the glove of a young girl who was affected with the itch, and caught that disagreeable disease; this accident led him to abandon them for ever. The Galenist, whom he consulted, attributed it to the combustion of the bile, and the saline state of the phlegm. They prescribed purgatives, which weakened him, without any alleviation of the disease. This led him to a plan of reforming medicine. He first studied the works of Paracelsus, but could not avoid despising the disgusting egotism and the ridiculous ignorance of that fanatic; in 1599 he took the degree of doctor in medicine; he afterwards married a rich Brabantine lady, by whom he had several children, and died in 1644, aged sixty-seven. After his death, his son, Mercurius, published his works. We are indebted to him for the application of the term *gas*, as understood by modern chemists. He was aware that gas was extricated from various bodies in abundance, during the application of heat, and during the solution of various carbonates and metals in acids. His theory of the formation of urinary calculus tended very much to the elucidation of that important portion of physiology; he satisfied himself that they differed from common stones, and that they do not exist in food or drink. *Tartar*, he says, precipitates from urine, not as an earth but as a crystallised salt. In like manner, the natural salt of urine precipitates from that liquid, and gives origin to calculi. We may imitate the natural process by mixing spirit of urine with rectified alcohol, an *offa alba* is immediately precipitated.

The man, to whom the credit of founding the iatro-chemical sect is due, is Francis de la Boé Sylvius, born in 1614, he studied the system of Van Helmont and the rival and more popular theory of Descartes. Upon these two he founded his theory, which is entitled to no originality, notwithstanding the boast that he makes of it, that he borrowed from no one. He was appointed Professor of the Theory and Practice of Medicine in the University of Leyden, where he taught with such eclat, and drew after him so great a number of pupils, that Boerhaave alone surpassed him in that respect. As he explained every thing on chemical principles, both his physiology and practice are absurd in an incredible degree. According to him, all diseases were occasioned by a superabundance of an *acid* or an *alkali* in the blood. The *acid* diseases were cured by *alkali*, and the *alkaline* by *acid*.

About this time, mankind in general became disgusted with the dogma of the Galenists, and iatro-chemistry was adopted more or less completely by almost all physicians. Mr. Boyle was the first who shook the pillars on which this sect rested their opinions, this he did in his *Sceptical Chemist*, published in 1661. His argument did not immediately put an end to the sect, but shook very considerably the confidence with which they supported their peculiar opinion. They were successfully refuted by the celebrated Dr. Archibald Pitcairn of Edinburgh,

and finally disappeared before the unrivalled splendour of Boerhaave's abilities.

Herman Boerhaave, born at Voorhaut, a village near Leyden, in 1668, where his father was a clergyman, at sixteen he was left an orphan without advice or fortune; he turned his attention to medicine; in 1693 he graduated and began to practise; in the meantime he taught mathematics to support himself, till he got a sufficient number of medical fees for his support; he erected a laboratory and studied chemistry. In 1712, he was appointed Professor of Medicine in the University of Leyden, where his reputation became very high. His system of chemistry, published in two quarto volumes in 1732, is a very learned and luminous work. All the facts that were known in his time, collected from a thousand different sources of obscurity and mysticism, are stated in the plainest manner, and chemistry is shown as a science both useful in medicine and to mankind in general.

Several other chemists appeared about the end of the seventeenth century, who deserve to be noticed for their discoveries. Glauber, the discoverer of the salts that bear his name; Kunkel, the discoverer of phosphorus; Lemery, who rendered the science so popular in France; Homberg; the two Geoffreys, members of the French Academy of Sciences, and makers of important discoveries.

John Joachim Beccher was the first who arranged chemical facts into a *theory*, born at Spires in Germany, 1635, received a medical and chemical education. In 1666 appointed Professor of Medicine in the University of Mentz, and soon after Chief Physician to the Elector; he afterwards got into difficulties and took refuge in Vienna. In 1680 he was in Great Britain examining the lead mines and smelting works in Scotland; in 1681—82 he traversed Cornwall, and died in the same year very suddenly. His chemical theory was given to the world in his *Physica Subterranea*, which was much improved upon by Stahl.

George Ernest Stahl, born in Anspach 1660; studied medicine in the University of Halle. The theory of Beccher, which was improved upon by Stahl, had for its object the explanation of combustions, and the reasons of the alterations induced by it in bodies. All combustible bodies, in their opinion, are compounds, and contain one principle in common, to which they owe their combustibility. To this principle they give the name of *phlogiston*. When a body burns the phlogiston leaves it, and occasions the appearance of the heat and light, which constitute combustion in common language. What remains is the other constituent of the body. When *sulphur* burns sulphuric acid remains. Therefore sulphur is a compound of sulphuric acid and phlogiston; when the metals are burnt *earthy* bodies or *calces* remain. Hence the metals are composed of calces and phlogiston. This theory was universally adopted by succeeding chemists, but was overturned in the end of the eighteenth century, in consequence of the prodigious accumulation of facts, for which the Stahlian theory had not provided. Stahl may, in some measure, be said to be the founder of the Chemical School of Berlin, which has furnished some celebrated chemists. Among the advocates of the Stahlian theory the most celebrated are Neumann, Pott, Eller, and Margraaf. The Academy of Sciences at Paris, also, about this time, furnished some celebrated men; among them were Reaumur, Hellot, Duhamel, Macquer, and Rouelle.

Up to this time chemistry had been little cultivated in Great Britain, except as an adjunct of medicine. The first person, who viewed chemistry as capable of becoming a separate and important science, was Dr. William Cullen of Edinburgh, born at Hamilton in 1712; he served his apprenticeship in Glasgow, and settled at Shoots in Lanarkshire; he was ap-

pointed Professor of Chemistry in Glasgow, where he had a very large class, and gained great reputation. In 1756 he was appointed, on the death of Dr. Plummer, to the chemical chair in Edinburgh, and here his popularity followed him. In 1766 he was appointed to the medical chair, which put an end to his chemical career; he had the merit of being the teacher of the famous Dr. Black.

John Black, born in France, on the banks of the Garonne, in 1758, was educated in Belfast, and went to Glasgow for his medical education, where he met Cullen, became intimate with him, and was fascinated with the study of chemistry. He went to Edinburgh to finish his medical studies in 1751. It was here that he discovered the difference between limestone and quick-lime; the first is a salt, a compound of carbonic acid (which he called fixed air) and lime; the second is the lime uncombined. He showed that carbonic acid is a gas possessed of the properties of air, but capable, like other acids, of combining with bases, and constituting a genus of salts, to which the name of *carbonates* has been since given. This was the subject of his inaugural dissertation when he took his medical degree in 1756, and gave, in the same thesis, an account of his experiments on *magnesia* and its salts, proving it to possess properties analogous to, but very different from, those of lime. In 1756 Dr. Black succeeded Dr. Cullen as lecturer on chemistry in Glasgow, where he brought to maturity his speculations respecting latent heat, which first enabled chemists to give the doctrine of heat a scientific form. He died in 1799, in the seventy-first year of his age.

It is to Mr. Cavendish that we are indebted for the knowledge of the properties of carbonic acid and hydrogen gases, and for the discovery of the composition of water and of nitric acid. He first gave a rigid analysis of air, and showed that its constituents underwent no sensible variation. We are also indebted to him for our knowledge of the freezing point of mercury.

The man, to whom we are indebted for the most rapid advance of chemistry, is Dr. Priestley; but he did not ponder over his opinions sufficiently before he gave them to the world, and therefore did not constitute a good philosopher, but in genius and invention he was not inferior to any of his contemporaries. He died in 1804 in the eighty first year of his age.

Sweden at this time constituted two chemists, who contributed fully as effectually as the British chemists towards the great change that chemistry was soon destined to undergo; these were Bergman and Scheele.

Thorbern Bergman, was born in 1735 in West Gothland; he finished his education at Upsala, and having displayed a great taste for mathematics and physical science, in 1758 was appointed *magister docens* in natural philosophy. In 1767 he was appointed professor of chemistry of Upsala, and filled the chair for seventeen years; he died in 1784 at the baths of Medeni. His works were published in six octavo volumes, under the name of *Opuscula*. It would be extremely tedious to mention all the facts known by this chemist. Among the most important we are indebted to him for the art of analysis, constituting at present the grand instrument for the improvement of science.

Charles William Scheele, born 18th of December, 1742, at Stralsund, the capital of Swedish Pomerania, was one of the most extraordinary chemists that ever existed. He was apprenticed to an apothecary in Gottenburg; after some time he went successively to Malmo, Stockholm, and Upsala, and at last settled in Köping as an apothecary, where he died in 1786 in the forty-fourth year of his age. *Tartaric acid*, in a state of purity, was first obtained by him; the calico printers of Great Britain are able to appreciate the value of this discovery. His experiments on manganese constitute a memorable era in chemistry. It was during these that he discovered *chlo-*

rine and *barytes*. In these experiments, also, he discovered the constituents of ammonia. He discovered *arsenic acid, molybdic acid, tungstic acid, uric acid, mucic acid, oxalic acid, lactic acid, malic acid, gallic acid, citric acid;* so many things did this celebrated man discover that we have not room in this short article to mention them. The important discoveries, made by the British and Swedish chemists, had not been anticipated by Beccher and Stahl, which their theory could not explain. It did not much longer retain its ground, and its overthrow was owing to the exertions of Lavoisier.

Antoine Laurent Lavoisier, born in Paris 1743, received a liberal education; he became a member of the Academy of Sciences in 1768, and up to 1794, or twenty-six years, he wrote sixty memoirs, most of them on chemical subjects. His theory of combustion converted nearly all the celebrated advocates of phlogiston of the time. In the year 1787 a new nomenclature of chemistry was published, in which Lavoisier assisted. It was universally adopted, and contributed more than any thing else to the overthrow of the Stahlian theory. Mr. Kirwan undertook the task of refuting the *antiphlogistic theory*, as it was called by the adherents of Lavoisier, and, with that view, published a work entitled "An Essay on Phlogiston and the Composition of Acids." This book was laid hold of by the French chemists, as affording them an excellent opportunity of showing the superiority of the new opinions over the old ones. It was accordingly translated into French, and published with a refutation at the end of every chapter; this was the death blow to phlogiston. Mr. Kirwan, with a degree of liberality, of which very few examples can be given, abandoned phlogiston and adopted the theory of his opponents.

From this time the science continued to be cultivated in France and Germany; notwithstanding the horrors of the revolution, several important discoveries were made. Klaproth, in Germany, discovered several new metals, and brought the difficult art of analysis to a regular system. Vauquelin, in France, added a great deal to our knowledge of the science.

A new electrical instrument was discovered by Volta about the end of the eighteenth century, now known by the name of the galvanic or Voltaic pile. It was destined to produce as great a revolution in chemistry, as the antiphlogistic theory of Lavoisier. A new race of chemists had begun to distinguish themselves about the time this discovery was made. One of the most remarkable was Humphrey Davy, who was in a great measure self-taught, and who possessed such genius and ardour, that whatever he began he was sure of attaining eminence in. Every chemist is acquainted with the *electrical theory*, for it is by it that the nature of combination and decomposition is at present attempted to be explained.

Another improvement was also introduced into chemistry by Mr. Dalton, which is known under the name of the *atomic theory*. The first direct proof in favour of the atomic theory was advanced by Dr. Wollaston, (for some of the greatest chemists of the time had expressed themselves in opposition to it, among the rest was Sir Humphrey Davy), and from the support it received it gained ground, and was at last universally adopted by chemists, but with two modifications. In this country chemists in general have adopted the simple theory of Dalton. But Berzelius has founded his notions of the atomic theory upon the doctrine of volumes of Gay Lussac; and this view of the subject is generally adopted on the Continent. Thus is a short and, I fear, imperfect history of chemistry brought to a close; at some future period I shall enter minutely into a detail of the opinions at present entertained of chemistry as a science, and its effect on medical education. In a science like chemistry, a year does not pass over our heads without something being discovered. There

have lately some new facts relative to flame been advanced by Professor Donovan, but having been informed that he intends prosecuting his researches still further, it will be useless for me to enter upon them here at present; when I begin my researches, I hope I shall "prepare my mind for the reception of truth, by dismissing all such crude and hastily adopted notions respecting the objects I am about to examine, as may tend to embarrass or mislead me *."

Εργον δ' ουδὲν ονειδος, ἀεργιη δὲ τ' ὄνειδος.—*Hesiod.*

ON THE EFFECTS OF BARBADOES NAPHTHA ON TREES AND HORSES.

BY DR. C. H. WILKINSON, BATH.

Mr. Clark, Mr. Leigh, and many other eminent veterinarians, and private gentlemen as well, have extensively employed the Barbadoes napththa, with the greatest success, in farcy and other cutaneous affections in the horse; and also, with equal advantage, in all species of chronic coughs, accompanied with loss of appetite, &c. When naphtha is applied to the hoofs, it restores that pliability and elasticity which are always observed in the healthy condition of the feet: on the contrary, when oleaginous substances, or those tarry mixtures artificially made from coal or wood are applied, the horny structure of the roof is rendered more brittle, and more destitute of its organic character. From some recent experiments as to the results of its agency in morbid affections of trees, its curative and preventive powers have been most satisfactorily demonstrated, particularly in that species of ulcerative process which arises from the agency of the American Aphis, or bug, as well as from other causes where the bark, alburnum, and even the wood becomes so much destroyed as to prevent the capability of bearing fruit, from such an extensive interruption to the motion of the sap. When the diseased part has been frequently coated with this naphtha, a very curious and quick change takes place in the alburnum and the bark, the solutions of continuity (that is, the gaps, clefts, and openings,) are removed, and the sap's operations restored, and the tree enabled to perform its healthy vegetating functions. Oils and artificial preparations from tar, either the product of wood or coal, had been found inefficient; undoubtedly depending on the different conditions of arrangement in the elementary principles of those substances, and the natural distillation from the rocks of Barbadoes. In the former, the elementary atoms of carbon, hydrogen, and oxygen are in chemical combination, not admitting of being decomposed by the agency of animal or vegetable substance, whilst Barbadoes naphtha, or rock oil, is a solution of carbon in hydrogen, the latter serving as the carrying medium to the sap vessels, producing the same restorative effects as have been attempted to be explained with regard to its agency on the absorbent system in the animal kingdom.

* Sir John Herschel's Treatise on Astronomy. Introduction.

STATISTICS OF THE DEAF AND DUMB.

France, with its 23 millions of inhabitants, contains 20,189 deaf and dumb; that is to say, one in every 1,585 of the population. In Russia the returns gave 1 in 1,584; the United States of America 1 in 1,556. For all Europe the proportion is as high as 21 in 1,537. With regard to the education of the deaf and dumb, it appears that, on an average throughout the whole of the civilised world, not above 1 in 24 have the means of instruction; in France, however, the proportion educated is 1 in every 4. We take these facts from the third circular of the Institut Royal des Sourdsmuets de Paris, sent to all the establishments for the deaf and dumb in Europe, Asia, and America.

Review.

Obstetric Tables, comprising coloured Delineations on a peculiar Plan, intended to illustrate Elementary and other Works on the Practice of Midwifery, elucidating particularly the application of the Forceps, and other important practical points in Obstetric Science. By G. Spratt, Surgeon-Accoucheur. 4to. Churchill.

Although we possess a number of excellent elementary works on the practice of midwifery, we are deficient in graphic illustrations, which convey to the mind of the student a knowledge of its principles. The works of Hunter and Smellie are too cumbrous, too expensive, and want all those points of information which the industry and skill of medical men have since their time, clearly elucidated. The work of Mr. Spratt will supply this want. The plates are well executed and ingeniously contrived to exhibit, in a clear and comprehensive view, all the most important objects which belong to the obstetric department. By an admirable arrangement, similar to that which has been adopted by Tuson in the display of the different succession of muscular layers, the natural positions of the parts are judiciously shown. Besides the delineations and explanations of the figures, the author has given some very judicious practical remarks. We most strongly recommend this book to the student and to the profession. It is a volume alike interesting to both, for it instructs the former, and recals to the recollection of the latter many most important circumstances, which it is impossible for the memory to retain in vivid and fresh colours.

EXTRAORDINARY BIRTH.

In Mountmellic, Ireland, a few days since, a mendicant called "Mary the Fairy," in height thirty inches, and aged fifty years, gave birth to a male child!

ON THE PERUVIAN BARK AS A COUNTER-AGENT TO THE POISONOUS EFFECTS OF ARSENIC.

BY ELIAS J. MARSH, M.D.

In a Note to the Editor.

Sir,—The November No. of your Journal contains a communication from Dr. Perrine, detailing the effects produced on himself by swallowing accidentally a large dose of arsenic.

How far the action of the poison may have been checked by the Peruvian bark, with which it was taken, is worthy of inquiry; and the object of this note is to communicate a statement just recalled to my memory, made several years ago by Professor J. A. Smith, of New York, to his class. Professor S. stated that a medical friend had related to him several cases of poisoning by arsenic, which he had successfully treated by administering large doses of Peruvian bark and milk. —*American Journal of the Medical Sciences for May.*

BOOKS.

The American Journal of the Medical Sciences for May.

Brande's Table of Chemical Equivalents.

CORRESPONDENTS.

Dr. Hancock's Essay is under consideration.

The communication on the Birmingham Prizes came too late for this number, and shall appear in our next.

Sir Charles Bell on Expression in our next.

Mr. Hetling's case of Osteosarcoma has been received.

Gracchus.—The bill will pass this session, but will be amended.

Errata.—In Professor Cooper's Fortieth Lecture, p. 609, col. 2, last line, for *interior* read *anterior;* p. 613, col. 2, line 34, for *shaft* read *sheath.*

Amount of Subscriptions received in aid of liquidating Dr. Ryan's law expenses

£ 229 2*s.* 6*d.*

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 74. SATURDAY, JUNE 29, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XLII., DELIVERED JAN. 23, 1833.

Gentlemen,—I will begin the lecture this evening with some observations on fractures of the ribs. The ribs are broken almost as frequently as any bones which can be mentioned, except the clavicle and radius, the middle ones being those which are most exposed to the accident, and especially the part of them near what is termed their angle. The upper ribs are rarely fractured, because they are protected in front by the clavicle, and covered by the pectoral muscles; while, behind they are shielded, as it were, by the scapula and the thick muscles of the back. As for the lower ribs, they generally escape, in consequence of their being so short and moveable. Now, you should recollect, that when the ribs are broken, the displacement of the fracture can only take place either inwards or outwards. On account of the connexion of those ribs, which are usually broken, to the sternum in front, and to the vertebræ behind, there can evidently be no displacement in the direction either backwards or forwards. Neither can the ends of the fractured rib be thrown upwards or downwards, because the intercostal muscles, which are attached equally to both fragments, resist such an occurrence. However, the ends of the fracture may be forced inwards, or they may incline outwards; but, in by far the greater number of instances, it is in the direction inwards that the displacement happens. The detection of a fracture of the ribs is not generally attended with difficulty; for if you merely place your hand on the part that has been struck, and desire the patient to cough, you will mostly perceive a crepitus; or the natural movements of respiration will render the same symptom very manifest, if you merely press your hand upon the injured part of the chest. However, I wish you to recollect, that when the ribs are broken towards their posterior ends, under the thick muscles of the back, you may experience a great deal more difficulty in detecting a crepitus. When one or more of the ribs are broken, the patient is annoyed with a sharp pricking pain in the situation of the injury, and has a frequent and dry cough, which, by the disturbance it occasions of the fracture, gives considerable pain. Now, supposing you were not able to feel the crepitus, and the diagnosis were obscure, you would then act according to the wise maxim laid down by all the best writers on surgery; namely, you would adopt precisely the same treatment, as if the occurrence of fracture were a matter of certainty.

A simple fracture of one of the ribs, unattended with any particular complication, such as a wound of the lungs, emphysema, or effusion of blood in the chest, is not productive of any serious danger, and generally has a favourable termination. But when several ribs are broken, and blood is extravasated in the chest, or the lungs are wounded, the accident often has a fatal result. We hear almost every day of cases, in which several ribs are broken by the passage of carriages over the chest, and the fracture complicated with injury of the thoracic viscera, effusion of blood in the thorax, or an extensive inflation of the cellular tissue, constituting what is termed *emphysema.*

Gentlemen, I may say that the treatment of fractured ribs is simple enough, when the accident is free from the complications which have been specified. It is a rule in practice when a surgeon is called to a case of broken rib, always to bleed the patient freely in the first instance. This is done with the view of diminishing the risk of inflammation within the chest, and the chance of internal hæmorrhage. Then, gentlemen, another indication is to keep

the rib as free from motion as possible. You are to endeavour, therefore, to prevent the intercostal muscles from taking much part in the performance of the function of respiration, and try to make the patient breathe principally by means of the diaphragm and abdominal muscles. For this purpose you may apply a broad roller firmly round the chest; or, if you prefer, you may use another apparatus, and one which I am in the habit of using, which is a strong napkin, the two ends of which must be brought from behind forwards, and then laced over the sternum. The patient is thus enabled conveniently to regulate the tightness of the bandage himself, and, for the sake of his own comfort, he will be sure to maintain the requisite degree of pressure; for when the roller becomes too slack, he begins immediately to experience the pricking pain again, and his cough is more troublesome. It is evident, gentlemen, that whether you employ a broad roller, or a napkin, it would slip down towards the loins if you were not to take the precaution to attach two pieces of tape to the central part of it near the spine, each of which is to be carried over the nearest shoulder, and sewed to a point of the bandage or napkin below the clavicle. The French apply another tape under the perineum to prevent the roller from slipping upwards; but this would only be necessary in very corpulent subjects, and is rarely or never made use of in this country.

Fractured ribs are generally treated with great success; and in four or five weeks a very firm union takes place. If the patient be left entirely to himself, without any kind of surgical assistance, a broken rib will also, for the most part, unite; but here is an instance (*the lecturer showed the preparation*) in which no union took place. The six ribs, which were broken, are only connected by a fibrous or ligamentous substance. Without speaking positively, I should presume, that, in this example, no effectual means had been adopted to keep the ribs motionless during the treatment.

In old persons, the cartilages of the ribs and ensiform cartilage are frequently ossified, and, when they are in this state, they are liable to be broken. The ensiform cartilage has been known not merely to be fractured, but to be depressed, or beaten inwards in such a manner as to lacerate the diaphragm, and tear the liver. The cartilages in their natural state may also be ruptured, and when this happens, they do not unite by cartilage, but by osseous matter, a bony clasp being formed, by which the fragments are bound together. The treatment of the latter injuries is the same as that ordinarily selected for fractures of the ribs.

The next bone, gentlemen, whose fractures claim our notice, is the *clavicle*, which is perhaps more frequently broken than any other bone in the body; and, you may observe, that there are several reasons why this should be the case. Fractures of the clavicle are accidents of frequent occurrence, in consequence of the bone serving two offices, which expose it very much to the effects of violence applied either to the shoulder or arm; namely, it keeps the scapula at a proper distance from the sternum, and is, at the same time, a point of support for the humerus, every impulse communicated to which bone is transmitted to it. In addition to these considerations, you are to recollect, that the superficial situation of the clavicle in front of the shoulder, across the upper part of the chest, must expose it very much to injuries from blows, the fall of brickbats, or other modes of violence applied directly to it.

Its middle portion, or greatest convexity, is broken more frequently than any other part of it, unless the fracture happen from a direct blow, in which case the injury may occur where the violence is applied. In such a case, the soft parts are always contused, and sometimes lacerated. In this manner a *comminuted* fracture may be produced, and, if the violence be very great, the subclavian vessels and some of the nerves converging to form the axillary plexus, may be injured. You are to understand, then, gentlemen, that the middle of the clavicle is more frequently broken than any other part of it; but that, in cases of direct violence, the bone usually breaks precisely in that situation on which the force has fallen: thus, if the blow has taken place towards that end of the bone which is nearest the acromion, then the fracture will be there; if towards the sternal extremity of the bone, then that portion of it will be broken. But, most frequently, fractures of the middle third of the bone are produced in another manner. I have reminded you, that one office of the clavicle is to hold the scapula at a convenient distance from the sternum, so that the motions of the arm may have a due degree of freedom and extent. Now, this disposition is one of the principal causes of the great frequency of fractures of the clavicle; for as this bone supports the scapula, every impulse and force communicated to the shoulder is communicated to the clavicle, which, being but slender, first bends and then breaks, where a stick would break under a force similarly applied to it, namely, in its central part. In consequence, then, of the clavicle serving as a point of support for the scapula, and, indeed, in particular positions, for the whole of the upper extremity, it necessarily follows, that, when a person falls upon his arm in an extended state, the shock will be communicated along the humerus to the glenoid cavity of the scapula, and thence to the clavicle itself; so that whether the person falls on his hand or on his elbow, the clavicle is likely to be fractured at its centre. I think, gentlemen, the observations already delivered will make it clear enough, not only why fractures of the clavicle should be so common, but why they should happen to that part of the bone in which they are mostly met with.

I may next apprise you, gentlemen, that a material difference in fractures of the clavicle

will depend on one particular circumstance; namely, whether the fracture has taken place more towards the sternum, than the two bands of ligament which tie the coracoid and acromion processes of the scapula to the clavicle. If it has taken place on the scapulary side of the coraco-clavicular ligament, it must be clear to you, that there can be very little displacement, because the outer fragment will be fixed by the ligament binding the clavicle to the acromion, while the inner one is prevented from quitting its place by the coraco-clavicular ligament itself. But, gentlemen, if the fracture take place within the latter ligament, or, in other words, more towards the sternum, there will then be considerable displacement, as there is nothing to prevent the outer fragment from being drawn down by the weight of the arm and shoulder, or from being carried forwards and inwards by the pectoralis major and subclavius muscles. Hence the displacement must be downwards, forwards, and inwards in all cases, in which the fracture is within the coraco-clavicular ligament; and you should further understand, that it is always the outer fragment that is really displaced; the inner one being kept from quitting its natural level by the action of the sterno-cleido-mastoideus, and of the pectoralis major, which antagonise each other. I repeat that, when the fracture takes place on the outside of the coraco-clavicular ligament, there is little or no displacement; and, if any at all occur, it is only in a trifling degree, such as may be produced by the outer fragment being slightly depressed, so as to slope downwards more than natural. In this case, if you take the humerus, and push it directly upwards, you find, that the outer fragment of the clavicle is brought to its proper level again. Some fractures of the clavicle are *comminuted;* this may happen when the injury has been produced by direct violence; and then, as I have already told you, the nerves, converging to form the axillary plexus, are exposed to contusion and laceration. Indeed, when I was on the subject of burns, you may remember, that I mentioned to you an interesting case of comminuted fracture of the clavicle, by which these nerves had been so injured, that paralysis of the arm ensued; and it was singular that the patient to whom I allude, and who was under Mr. Earle's care, could not afterwards put her hand into moderately warm water, without the effects of a scald being produced, characterised by vesications, redness, &c. The fact is curious, as proving the share, which (to use an expression of French pathologists) the *innervation*, or, in plainer language, the nervous influence, has in enabling the different parts of the body to bear particular temperatures.

When the clavicle is broken by a force applied to the outer part of the shoulder, the fracture is mostly oblique; and, if the violence has been very considerable, the end of the bone may protrude through the skin, and the case thus be a *compound* fracture.

Now, gentlemen, the symptoms of a fractured clavicle are clear enough. There is a depressed and sunk state of the shoulder, more especially, when the fracture is within the coraco-clavicular ligament; indeed, the shoulder will then be considerably depressed, and at the same time inclined towards the sternum; so that the space between the median line of the trunk anteriorly and the tip of the acromion will be remarkably diminished. An attentive practitioner will at once notice the approximation of the shoulder to the sternum. Then, gentlemen, if you pass your finger from the sternal extremity of the clavicle, regularly along that bone, as soon as it reaches the situation of the fracture, you will perceive a sudden depression in the line of the bone, arising from the circumstance already sufficiently explained, namely, the inclination of the external fragment downwards, inwards, and forwards. You may also remark, that when you push the shoulder upwards, backwards, and outwards, so as to bring the external fragment into its proper situation, that a crepitus is perceptible, or, even without elevating the shoulder, if the displacement is not so great as entirely to separate the two ends of the fracture from each other; then the crepitus may be distinguished by putting your finger on the injured part and gently moving the humerus. When you first come to a patient, whose clavicle is fractured, you will usually find him sitting in a particular position, with his head inclined towards the affected shoulder, and his fore-arm bent, and quietly supported on the other hand. He spontaneously chooses this posture in order to relax the sterno-mastoid muscle, and to prevent all motion of the upper extremity, which would be exceedingly painful to him. Thus, gentlemen, if there be any circumstance that I have explained, more deserving of recollection than another, it is, I think, the fact, that when the fracture is within the coraco-clavicular ligament, the outer fragment is displaced downwards, inwards, and forwards, and that, consequently, the shoulder becomes nearer than natural to the median line of the body, and the space between shoulder and sternum manifestly less on the injured side than on the other. Another sign of a fractured clavicle worth remembering is this:—the patient cannot put his hand to his forehead; and the reason of this circumstance is, that the humerus has now no fixed point of support, and is deprived of that fulcrum, which the clavicle naturally affords it. Now, you are to observe, that the infirmity, which I speak of, will always present itself, unless the fracture be on the outside of the coraco-clavicular ligament; for then the patient can sometimes raise his arm, and perform the movement I have alluded to. In other instances, he cannot bring his hand into contact with his forehead, except partly by bending the fore-arm, without moving the humerus, and partly by inclining the head downwards,

so as to make it meet the hand. I should say, that as these circumstances are characteristic signs of fractured clavicle, you should never be unmindful of them in practice. Lastly, I may notice that, in consequence of the way, in which the outer fragment is displaced, there is always a manifest prominence, occasioned by the end of the internal fragment, the *rising of the bone*, as it was termed by the old surgeons, who erroneously considered it to be above its proper level.

In the treatment of fractures of the clavicle, you should always remember, gentlemen, the direction of the displacement, and attend particularly to the circumstance, that the outer fragment is ordinarily carried inwards, forwards, and downwards, and that it is really the internal one that remains in its natural situation; indeed, the other may sometimes be situated directly under it. Therefore, in order to replace the external fragment, you should carry the shoulder backwards, outwards, and upwards, and take off the weight of the upper extremity as much as possible. Now in this country, in nine cases out of ten, the contrivances used for the treatment of broken clavicles, are the sling and the figure of 8 bandage, with which the shoulders are braced backwards. A roller is passed round one shoulder, and then across the back to the other shoulder, round it, and then over the back again, crossing the first part of the bandage, and then continued in the form of an 8. But, gentlemen, this bandage does not scientifically fulfil all the indications required; and it even has a wrong operation, for it tends to draw the shoulder inwards, or towards the sternum, as much as it inclines it backwards; and the more tightly it is applied, the more it will force the shoulder inwards. After the explanation which I have given you of the nature of the displacement, I scarcely need tell you, that this action of the bandage is contrary to the proper object to be held in view, viz., that of inclining the shoulder outwards. The French surgeons, who seem to me to have devoted great attention to the treatment of fractures, have contrived a better method; one that is more judicious and efficient. Desault, the great surgeon at the Hôtel Dieu before Dupuytren, employed a cushion or compress, thick at the upper part, and thin below, or formed like a wedge; he put the thick end of this wedge-like compress immediately under the axilla, and fastened it there by means of two pieces of tape passed over to the other shoulder. Now this compress, when the humerus is pressed close to the side, has the effect of throwing the head of that bone outwards, so that Desault in truth made the humerus a lever, with which he inclined the shoulder outwards, upwards, and backwards, and the wedge-shaped compress was his fulcrum. The elbow ought to be confined and supported in a sling, and kept close to the side with a bandage. Various surgeons have suggested their favourite apparatus for broken clavicles; but as far as I can judge, if you understand the indications to be fulfilled in the treatment of these fractures, you will always be able to accomplish every thing required with the aid of a compress, roller, and sling.

Boyer employs first a belt, which is buckled round the chest: secondly, a piece of dimity or quilted cloth, furnished with four straps, and intended to be put round the arm. With these straps, the arm is fastened to so many buckles on the belt. Thirdly, Boyer employs a sling to support the fore-arm and elbow. But, as I have already stated, any surgeon, who understands what indications are to be fulfilled, will manage every thing perfectly with a sling, a wedge-shaped pad, and a common roller. All other contrivances for confining the humerus are, in my opinion, needless. Of course, when the fracture is within the coraco-clavicular ligament, greater attention will be required, than in other instances, because then there is a very considerable degree of displacement to counteract.

The next *fractures*, gentlemen, which I intend to bring under your notice, are those *of the scapula*. The parts of the scapula, most frequently broken, are the acromion process and the lower angle. The greater portion of the scapula is so deep and so protected by thick muscles, that fractures of it very rarely take place. The acromion is oftener broken than any other part of the scapula, and next the lower angle. The coracoid process is sometimes fractured, but much less commonly than is generally believed; and, I think, the same observation may be made with regard to the neck of the scapula, which is so strong and so well guarded from the effects of external violence, that a fracture of it is by no means a common occurrence. In some instances, portions of the glenoid cavity are broken off; but this also is an event, which is oftener talked of, than really met with. I do not mean, however, to question its possibility, for, I believe, that such a case has fallen under my own notice more than once. The body of the bone is occasionally, though seldom, fractured. Its fractures may be perpendicular, but the greater number of them are transverse. Sometimes the scapula is fractured in more than one place, and it may be broken into several pieces by great and direct external violence.

Fractures of the body of the scapula can, indeed only be produced by direct violence, as by a blow, a gun-shot injury, or the passage of a heavy body over it. I know of no other way, in which such an accident can happen; and this fact explains to you why severe injury of the soft parts generally accompanies fractures of the body of the scapula. Sometimes the violence of the injury is such as to extend its effects to the thoracic viscera, and to cause effusion of blood in the chest.

When the acromion is broken, the patient inclines his head towards the injured shoulder, the arm hangs motionless by the side of the

trunk; an acute pain is felt in the situation of the injury; when the patient attempts to move his arm the pain is much aggravated, and, in consequence of the deltoid being partly attached to the acromion, some of the fibres of that muscle lose their point of insertion, and therefore cannot afford due support to the humerus, which sinks down, and consequently a part of the natural fulness and rotundity of the shoulder is lost. You know very well, that the head of the humerus is not held in its place by ligaments, but principally by the muscles and tendons surrounding the joint. Hence, when the acromion, to which some of the fibres of the deltoid are attached, is broken, the humerus is proportionately deprived of support; it descends, and the cushion of the shoulder becomes flattened. You may know a fracture of the acromion, also, by the presence of a crepitus, for, when you place one of your fingers on the broken part, or hold the extremity of the acromion between your finger and thumb, and then push up the humerus, or merely move it freely in various directions, the crepitus will be distinguishable. You can likewise feel an interspace or irregularity between the fragments of the broken process. I may say, gentlemen, that the discovery of the nature of this accident is indeed exceedingly simple, not only by the circumstances already mentioned, but by others; thus, the shape or rotundity of the shoulder may be restored by pushing up the humerus, but directly you let the arm descend again, the shoulder resumes the same flattened appearance, which had been noticed previously to the elevation of the limb.

If a fractured acromion be left to itself it will generally unite either by bone or a ligamentous fibrous substance. Now, when osseous union takes place under such neglect, the outer fragment is liable to point more downward than it ought, and the shoulder to be considerably weakened; a fact first noticed by the celebrated Cheselden. A fracture of the acromion ought to be treated nearly in the same manner as a broken clavicle; the first indication is to take the weight of the upper extremity off the shoulder, by supporting the fore-arm in a sling, and keeping the elbow well up by the same means. Another indication is to prevent all motion of the humerus, which is accomplished by means of a sling and roller. A third is to incline the head of the humerus a little outwards, an object fulfilled with the assistance of the wedge-shaped cushion, which I described when speaking of fractures of the clavicle. Some surgeons prefer keeping the arm raised from the side, in order to relax the deltoid muscle, a method, which ought to be adopted, if the patient were obliged by circumstances to remain in bed. I have explained, that the acromion sometimes unites by bone, sometimes by ligament, I now show you two preparations, one of which illustrates the first mode of union; the other, the second.

When *the lower angle of the scapula is broken off*, it is displaced downwards and forwards by the action of the serratus major anticlus. In the treatment of this accident, the humerus should be brought forwards across the chest, and the hand confined upon the opposite shoulder; this position of the limb, which has the effect of bringing the fragments nearer together, is adopted abroad; but, in this country, we are not generally so particular, and when any part of the body of the scapula is fractured, we merely apply the spica bandage, the roller employed for which, after crossing over the scapula, is carried round the joint, and then over the back of the trunk, to below the opposite axilla, whence it passes in front of the chest to the injured shoulder, which it again encircles. The roller is conveyed in the directions here enumerated, until nearly the whole of it is expended, when it is made to conclude with a horizontal circle round the thorax. Such is the celebrated spica bandage, which is of little or no use; for it fulfils no particular indication, except the trivial one of retaining in its place the soap plaster, occasionally put over the injured part. This bandage and the sling are the only apparatus, commonly used in England for the treatment of fractures of the scapula.

When the *coracoid process is fractured*, a great deal of mischief is generally done to the soft parts of the shoulder, just below the clavicle; for this fracture can only happen from direct violence, and indeed a considerable degree of it is required to produce the accident. It is on this account that some difficulty may occur in making out the nature of the injury of the bone, which is often concealed by the great swelling of the neighbouring soft parts. Hence also much of the treatment consists at first in measures for diminishing the swelling, as venesection, leeches, cold lotions, &c. But, gentlemen, if it were not for the swelling of the soft parts, there would be no difficulty at all in detecting the case; in fact, a crepitus would not be distinguishable, unless considerable displacement of the anterior fragment existed. The coracoid process, when broken off from the rest of the scapula, is liable to be drawn downwards by the coracobrachialis and pectoralis minor, the most powerful muscles connected with it; they ought, therefore, to be relaxed. The shoulder should be kept quiet, which is effected by keeping the arm at rest with a sling and roller; for, if the arm is motionless, the shoulder will be so too.

Gentlemen, I mentioned to you, that *fractures of the neck of the scapula* are not common accidents, but they are possible ones, and liable to be mistaken for dislocations of the humerus downwards, inasmuch as the weight of the limb carries the arm down along with the cup of the scapula, and a hollow is felt under the acromion. However, you may readily perceive the difference between the two cases, by attending to the following cir-

cumstances. In a dislocation, there is no crepitus; you cannot move the humerus about without opposition, as you can when the neck of the scapula is broken; the head of the humerus can be felt either in the axilla, or under the pectoral muscles; the axis of the humerus is changed; and the motions of the arm are very stiff and confined. But in a fracture of the neck of the scapula, you cannot feel the head of the humerus in either of the situations which I have specified; a crepitus may be distinguished when you take hold of the coracoid process, and the humerus is pushed up and moved about, no particular resistance being then made to the motion of the arm; the proper shape and position of the shoulder and arm are easily restored by pushing the humerus upwards; but, as soon as the support is removed, the deformity returns.

The treatment of this accident consists in keeping the head of the humerus inclined outwards, by means of a thick cushion below the axilla, in supporting the elbow effectually with a sling, and in preventing all motion of the humerus by binding it to the side of the chest with a roller: by attending to these indications, you will be sure to be right.

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

At St. Thomas's Hospital, April, 15, 1833.

LECTURE X.

Fever—Porrigo—Congestion of the Brain—Chronic Bronchitis—Epilepsy—Scrofula.

Gentlemen,—A fortnight has elapsed on account of the holidays, during which period only four of my patients have been discharged by myself, though two others have been turned out by the steward for misconduct. Of the four discharged by me two were males and two females;—one of the latter laboured under fever, the other porrigo of the scalp.

The case of fever occurred in Sarah Green, aged 51, who was admitted into Mary's Ward on the 28th of March. She had been a nurse in the hospital, and stated that she had been ill a week. Was attacked with shivering, followed by pain of the head and back, with feeling of great weakness, heat of skin, great thirst, and dryness of the mouth; inability to sleep, and great restlessness during the night; her tongue was white and dry. She complained, too, of some cough; her bowels, she said were quite open, but the motions were very dark coloured.

Now, as there was no intense heat of skin, as the pain of the head was not very great, as the stethoscope detected nothing unnatural in the chest, and as she bore pressure over the whole abdomen without experiencing pain,—in short, as there was no proof of any organ or tissue being seriously affected, I merely prescribed gr. v. of hydr. c. creta three times a-day, directed her bowels to be kept open with castor oil, to be well washed of a-day with tepid water, and put on slops. The secretion from the bowels soon became natural; the mercury with chalk was then omitted, and she took no medicine; the pain of the head ceased, her tongue got clean and moist; she slept well, and was recovered sufficiently to be discharged on the 11th of this month.

Now, you will observe, that the mercury with chalk was the principal medicinal agent employed in the treatment of this case; and I am glad of this opportunity of stating to you my reasons for the employment of mercury in the treatment of fever. In proportion as fever may be accompanied by inflammation or congestion, or by derangement of the secretions, so will the exhibition of mercury be useful; and I have known, and believe some of you have seen, many cases yield as soon as the mouth has become affected; but, independent of these circumstances, it is of no advantage as far as the specific disease is concerned; neither do I believe that it will render blood-letting or blistering at all less necessary whenever these may be indicated in fever. But though neither inflammation nor congestion may be present in fever, yet, if the tongue is dry and foul, and the general secretions depraved as well as diminished, you will find that moderate doses of mercury, given two or three times a-day until the tongue begins to grow clean and moist, and the secretions augmented and natural, will generally be productive of great benefit. As soon, however, as these changes have taken place, its further continuance is not of the slightest use, and it should be laid aside, or only given occasionally as a purgative in conjunction with rhubarb or castor oil. I do not think that you will do good, in the treatment of fever, by pushing mercury to such an extent as to cause ptyalism; indeed, you will only thereby be increasing the patient's suffering, and therefore it ought always to be carefully watched, that such an effect may be avoided if possible. In most cases of fever, even in our own climate, if the temperature of the body is much above the natural standard, the mouth is not easily affected; and if you wish to retard this effect, you will find that it may be generally done to a considerable extent by giving freely alkalies, as either free doses of carbonate of potass or carbonate of soda; the most agreeable mode of prescribing which is in the form of the simple saline effervescing draught, taking care that the alkali should be considerably in excess. I believe the most generally useful preparation of mercury in the treatment is the hydrargyrum cum cretâ, as being less likely to irritate the mucous membrane of the bowel.

The case of porrigo occurred in a little girl, Jane Bryant, two years and a half old, who was admitted into Elizabeth's Ward on the 28th of February last. She had been affected

with it some months: had caught it of her elder sister, who is also under my care in Ann's Ward. It was that species of porrigo which is termed *porrigo scutulata,* or ringworm of the scalp—while the sister, many of you will recollect, was suffering under the variety termed *lupinosa;* showing that the various forms under which the disease is manifested are dependent on some local or constitutional peculiarity. The porrigo scutulata consists of a number of very small pustules clustered together in patches of generally an oval or circular form; sometimes there is only one patch, sometimes several, as was the case in this little girl. The pustules are of a light yellow colour, and occasionally so small as merely to appear papular, unless examined through a lens. They soon break, and the exudation forms thin crusts or scabs, which, unless carefully removed by cleanliness, soon become harder and thicker; the patches in this way extend, until they run into each other, when at length the whole head is affected, presenting a disgusting mass of offensively smelling scabs.

If, however, the crusts are carefully removed, this is prevented, and we then find the cuticle beneath of a reddish or purplish-red colour, having a glossy or shining appearance, and studded with little elevated pimples or pustules. From the commencement of the disease the hair is injured: it becomes thinner and lighter in colour; breaks off; and at length the roots are destroyed, and the patches left perfectly bald.

Dr. Bateman considers that the disease arises spontaneously in children of feeble constitution, who are ill fed and uncleanly. I have no doubt that it does arise so occasionally; but it much more frequently occurs from contagion: it is a disease chiefly confined to children, and is very common in large schools and manufactories.

The treatment in this case was very simple. The head was shaved every week; and, as the patches were not irritable, tar ointment was applied night and morning, the head being properly washed every morning before the application of the ointment. As her health was very good, she took no medicine during the first sixteen days; but as the bowels then became sluggish, she was ordered gr. x. of our pulv. rhei c. hydrargyro every other morning. The eruption had very much improved, but, at the expiration of four weeks, it appeared stationary, indolent, and to want a more stimulating application than the tar ointment alone. I therefore ordered a combination of the tar ointment to be used with the compound sulphur ointment, in the proportion of ʒj. of the latter to ʒj. of the former; this was applied during two days, and with the effect of exciting considerable irritation. Indeed, at first I feared that it had been too stimulating, but that was not the case; it was then omitted, and zinc ointment merely applied; the irritation subsided; no fresh pustules came out; the redness of the patches diminished; and she went out quite well on the 11th of April.

Now this case yielded speedily to the treatment, but you must not expect that every case of porrigo will do the same, for it is too frequently one of the most teasing disorders we have to combat. There is no one plan of treatment upon which you can alone rely for its cure, and your means must be varied, and at different times will often require to be of a totally opposite character. If there is much irritation, or inflammation of the skin, your applications must be of a sedative character, such for example as the unguentum zinci, the ceratum plumbi acetatis, or the liquor plumbi subacetatis diluted, constantly applied, or rags wet continually with cold water. In some instances the inflammation will be so considerable as to require the frequent application of leeches to the skin; occasionally, where the disease has occurred at a more advanced period of life, I have bled from the arm with advantage, especially where the disease has been attended, as it sometimes is, with considerable pain in the head. Often after the inflammation has lost its active character it becomes indolent, or passive as it is termed, and then requires to be stimulated. Under such circumstances, the unguentum picis, diluted with unguentum zinci, in the proportion of one part of the former to four or five of the latter, is one of the best applications you can use, augmenting the quantity of the tar ointment according to the degree in which we wish to stimulate the part, until it may be used alone. Sometimes the tar ointment alone is not sufficiently stimulating, and then you will often find it useful to combine it with some of the compound sulphur ointment, or with some of the hydrargyrum nitratis. Frequently, however, neither of these will succeed, excepting for a short time perhaps, and then you may apply with advantage a strong solution of nitrate of silver to the parts affected, in the proportions of fifteen or twenty grains to an ounce of distilled water, and sometimes a blister applied over the part will succeed when other measures have failed. I have often found, too, advantage from the application of pyroligneous acid, added to a bread and water poultice, applied for a short time. But, above all, the greatest attention ought to be paid in keeping the head perfectly clean, and where there are other children in the house they should not be allowed to sleep together, they should be separated as much as possible, and the indiscriminate use of combs and towels for each should be carefully avoided. I have known it continue in the same family for years from a want of proper precaution in this respect. With regard to internal remedies I am not disposed to place much reliance on them. If it is accompanied by debility, or cachexy, then tonics may certainly be useful, or if there should be much fulness of habit, restricted diet and purgatives may be necessary; most fre-

quently, however, it is attended by no disturbance of the health, and therefore it is useless to give physic. As for what are termed alteratives, as I have on former occasions observed to you, I don't know what is meant by them. I presume every medicine is given with the intention of changing some existing condition, and therefore every medicine must be an alterative. In the chronic form of the disease I cannot say that I have ever found mercury, given internally, do much good.

Of the two male patients discharged by me, one was affected with congestion of the brain, and the other with chronic bronchitis.

The case of congestion of the brain was admitted into Luke's Ward on the 28th of March. The man was a marine, aged 27, and stated that he had been ill a fortnight with pain of his head of a dull kind, with occasional giddiness; felt weak and heavy, but was unable to sleep; whenever he did sleep dreamed frightfully, and felt hot at night, though his feet were often cold; was very thirsty; tongue white, dry, and rather tremulous; conjunctiva of the eyes slightly suffused; complained of pain in the right hypochondrium, and apparently increased on pressure there, but upon taking off his attention to what I was doing, by asking some question about his head, he then bore great pressure without wincing; bowels rather confined; pulse 72, oppressed; no heat of skin; head scarcely hotter than natural. From the absence of increased heat in the head, I do not believe that there was any actual inflammation, but from the slow pulse and its oppressed action, I am of opinion that there was a state of congestion in some portion of the brain, which if neglected would run on to inflammation.

I ordered him to be bled from the arm to lb. j., to be purged with calomel and house physic, and to be put on slops; after the bleeding and purging he was much better, slept well that night, and during the next day had neither headach nor giddiness; the next night, however, he did not sleep so well; was disturbed by frightful dreams, and during the day had some return of uneasiness in the head; a second pound of blood was therefore ordered to be taken by cupping-glasses from behind the mastoid processes, with a repetition of the calomel and house physic; after this he had no return of headach or giddiness, the tongue became clean and steady, and he went out at the expiration of a fortnight perfectly well in every respect.

The case of chronic bronchitis did not present any great interest. The man was a sailor, admitted March 14, and said that he had been ill four months. He came from Rockingham House, and being fearful I suppose that he would not be taken in if he only complained of a cough, he said very little about that, but told a long story of constant vomitings, and occasionally of blood, with violent pain in the epigastrium. I could not discover any disease there, neither did he vomit, but I soon found chronic bronchitis, particularly on the right side of the chest, the respiration there being sonorous and whistling; as his pulse was tolerably full I had him cupped from the chest to ℥xiv., applied blisters, and slightly affected his mouth by giving him five grains of hydr. c. cretâ 6tis h.; it was only necessary to repeat the cupping a second time, his cough diminished, his expectoration lessened, the respiratory murmur became natural, and he went out well on the 11th, having been under treatment four weeks.

The two cases turned out by the steward for improper conduct were a case of epilepsy and a case of scrofula.

The case of epilepsy appeared to be dependent on some inflammatory condition of the brain, and the man was much benefited by local depletion, cold applications to the head, and mercury. His fits had become much less frequent, and his memory much improved, and I thought there was a fair prospect of his recovery.

The case of scrofula occurred in a lad about fourteen years of age; glands of the neck, groin, and abdomen were enlarged. I was treating him with iodine, and apparently with advantage. I was sorry they were dismissed, but I am satisfied it was necessary, that the steward only discharged his duty by so doing, as they had conducted themselves very improperly.

During the last week there have been eight of my patients discharged, five men and three women; of the five men, two were cases of rheumatism, one of acute pericarditis, supervening acute rheumatism, one of chronic pericarditis, and one of syphilis. Among the women there were two cases of chronic inflammation both of the serous and mucous tissues of the bowel, and one of them accompanied by bronchitis; the third was a case of hemiplegia of six months' standing: the cases of rheumatism were both in Luke's Ward.

The first occurred in Thomas Mowerman, a painter, æt. 38, admitted March 28; it was the acute form of the disease, and he had been twice before the subject of it. When he came in he had been ill four days with severe pain in the groins, knees, ankles, and feet, the latter were much swollen, red, and hot; the pain was increased by heat; he could not sleep; his skin was hot, but without perspiration; tongue loaded with a thick white fur; bowels confined; urine high coloured; very thirsty; pulse 120, full and sharp.

A pound of blood was taken from the arm; five grains of calomel were given directly as a purgative, and he was directed to take ℥ ss. of the wine of colchicum, with ℈j. of carbonate of magnesia every six hours, and, being very dirty, to be put into a warm bath in the evening. He slept well after the bleeding and bath, and perspired freely; and on the 30th, the second day after his admission, the swelling and redness had subsided, and the pain very materially diminished; the blood had a thick

layer of fibrin, but not being drawn in a full stream, it was not cupped. As the colchicum now began to nauseate and gripe him, purging him five or six times a day, it was directed to be given only every eight hours, and two minims of hydrocyanic acid to be combined with each dose. He continued to take it so combined for two days, when it was omitted, in consequence of the nausea, griping, and purging still continuing, and a dose of our compound chalk mixture with opium was given after each loose stool. This soon checked the irritability of the stomach and bowels, and he was nearly free from pain, sleeping well, and his appetite being good. On the evening of the sixth of the present month he complained of pain at the pit of the stomach, for which Mr. Whitfield ordered the application of a mustard poultice with relief; but the next day he was suddenly seized with giddiness, faintness, and pain at the epigastrium, quickly followed by an eruption of purpura on the arms, legs, and thighs, accompanied by pain in all his limbs; his pulse, which soon after the first bleeding had fallen to 88, got up to 104; his tongue again became white; his bowels were open. I saw him at this time, and ordered ℥ xij. of blood to be taken from the arm. The spots of purpura were of various sizes, some no bigger than flea-bites, others the size of a silver penny,—the colour a pale red; the blood was much cupped and buffed, and by the next day the spots had nearly disappeared. He was then directed to take ℈ j. of nitrate of potass every six hours,—nothing else was done for him; the pains ceased, the spots vanished, and he was so perfectly well on the 17th, that he insisted on going out. A blister had been applied to the shoulder on the 13th.

Now, as regards the acute rheumatism, this case is only interesting as showing, what you have frequently seen among my patients, how speedily bleeding and colchicum will check the rheumatic inflammation, more especially if the bleeding is had recourse to in the early stage of the attack; it was so here,—the man had only been ill four days, the feet and ankles were exceedingly painful, red, hot, and swollen. When he came in on the Thursday, he was bled, purged, and took the colchicum; and in two days the redness, swelling, and heat were gone; there was pain, it is true, still, but nothing in comparison with that he had previously suffered. Some years ago it would have been a heresy, and a heresy of the worst kind, to have bled a patient in acute rheumatism in this hospital: for Dr. Fordyce, former physician to the hospital, was in the habit of treating the disease with bark, in favour of which remedy he laid aside bleeding entirely; and states that during fifteen years he had employed bark successfully in many hundred cases, and that he had scarcely ever met with any of those instances of metastasis, which he found to be of very frequent occurrence when he was in the habit of bleeding freely. The practice, however, did not originate with Dr. Fordyce, Dr. Morton was the first who employed it; Dr. Haygarth, of Chester, too, spoke quite as strongly in its favour as Fordyce, as did also Drs. Fothergill and Saunders.

Dr. Haygarth says that "bark in the rheumatic affections is only inferior to mercury in syphilis." Now I have formerly tried it during the active inflammatory stage of acute rheumatism, in a sufficient number of cases to satisfy me that it does harm, and therefore under such circumstances I never employ it; occasionally, however, you will find that after free depletion, either local or general, rheumatism loses its active inflammatory character, and assumes a sort of remittent, or periodical form; and when this happens, bark or quina, or arsenic are often found of very great service. You must use them even under these circumstances with caution, for every now and then you will find either of them exacerbate to such an extent, as to bring back all the inflammatory symptoms. I have never myself seen any unpleasant effect from moderate bleeding in acute rheumatism, but I have frequently seen the disease horribly protracted, and the patient's misery prolonged, through the want of it in the early stage. Of course the propriety of bleeding must depend on the degree of general or local inflammation, on the state of the vascular system, and the general power of the constitution. I have been several times asked whether, after bleeding in acute rheumatism, I have not found the heart or pericardium more prone to take on inflammation. I certainly never have found this, but I am positive that I have often seen inflammation of the heart and pericardium supervene from a neglect of bleeding; depend upon it, if the general excitement is considerable, and the state of the pulse such as not positively to forbid it, you cannot do wrong by the moderate abstraction of blood; and above all, I would advise you never to be afraid of bleeding, if the muscles of the chest are attacked by it. The quantity of blood to be abstracted must necessarily, as in all other diseases, be regulated by the condition of the patient, but still it ought to be sufficient to make a decided impression on the pulse. Next, as regards the colchicum, this, as you all well know, though only of late years reintroduced into practice in this country, is one of the oldest remedies in the treatment both of rheumatism and gout, being in fact the hermodactyl of the Greek physicians; it is an acrid cathartic and emetic, possessing some diuretic properties, and occasionally exciting perspiration, its active property residing in an alkaloid principle which it contains, and which, being similar to that which is found in the veratrum album, is termed veratrine. It is commonly said, too, that colchicum possesses some narcotic power; if it does, I have

been so unfortunate as never to discover it; I have used it as extensively as most remedies, but it has never appeared to me to stupify the brain at all; nor have I found it lessen pain until it had previously proved actively evacuant, and then I have always considered the diminution of pain as the result of the diminished action of the system, consequent on the evacuations; it is certainly one of the most useful remedies we have in the treatment of rheumatism. Many, I believe, consider that it possesses specific powers over the disease; I do not think so; I have never seen it exercise any controul over the disease unless it purged or vomited, and have always seen it prove most useful when it purged pretty actively. You will find, too, many other hydragogue cathartics, as they are termed, equally useful in checking rheumatic inflammation; elaterium, for example, and camboge. More than ten years ago I treated several cases of acute rheumatism in St. Pancras Infirmary, by bleeding, and a grain of elaterium, given every morning for three or four days, and I found the cases get well quite as quickly as those treated with colchicum, but as the elaterium is less manageable, more likely to distress the stomach and excite vomiting than the colchicum, I certainly prefer the latter; I believe that its good effects in rheumatism are ascribable to its action as a counter-irritant on the mucous membrane of the alimentary canal, exciting, as it were temporarily, disease in a tissue of the body, different from that which is the seat of rheumatic inflammation, and at the same time diminishing the general excitement of the system through the evacuations which it produces, as I believe it to be much more useful when it purges, than when it excites vomiting only; I am, as you well know, in the habit of generally combining it with an alkali, or alkaline earth, as the carbonate of magnesia, which combination tends to diminish its emetic effect, and at the same time increases its purgative action; if this, however, is not sufficient, and it often is not, then its emetic property may be still further controlled by adding a minim or two of hydrocyanic acid to each dose, for the knowledge of which valuable fact I am indebted to Dr. Elliotson. But useful as colchicum is generally in the treatment of rheumatism, you will not unfrequently meet with cases in which the disease mocks its employment, and this is more especially the case where the inflammation is confined to bursal or ligamentous tissues, here you will find local depletion by leeches, cold application, and mercury, do far more good than colchicum.

But there is another circumstance of still greater interest belonging to this man's case. You will remember that when he was convalescent from his rheumatism he was suddenly attacked with purpura. Now, this is a disease which manifests itself by the sudden appearance of spots on the skin of different colour and size. When small, they are termed *petechiæ*, when large, *vibices*, and larger still, *ecchymosis*. It is a curious disease, concerning the pathology of which very little is known. It is commonly placed among diseases of the skin; and by Willan and Bateman is classed among the exanthemata, but without any good reason; for, so far from the spots being confined to the cutaneous surface, they are quite as frequently met with in other tissues, as the pleura, pericardium, peritoneum, and cerebral membranes, and they are said also to have been found in the substance of muscles.

Rayer places it among the congesta, but it is more than mere congestion—it is certainly extravasation. It occurs in totally different conditions of the system, and is often met with when there is little or no apparent deviation from health; and again, is often a symptom of extreme debility occurring in the latter stage of fevers of the typhoid character. When it is unattended by pain, any sensation of smarting, or any sensible elevation above the surface of the cuticle, it is termed *purpura simplex*. Occasionally it is accompanied by some degree of itching, and the patches are elevated into small weals; it is then termed *purpura urticans*. Again; it is often met with in old people in the form of large ecchymoses; and in some, the slightest pressure on any part of the body is sufficient to produce these; it is then termed *purpura senilis*. It is often accompanied by hæmorrhage from different parts, as from the nose, the mouth, the intestinal and urinary passages, and is then termed *purpura hæmorrhagica*. It is by no means unfrequently found in inveterate drunkards, and in the latter stages of dropsy when the constitution is much enfeebled. It is not, however, always a disease of debility, because you will frequently find it yield to blood-letting. One of the severest cases of the disease that I ever witnessed occurred in a young man who worked in the East India Company's tea warehouse, and who was admitted into the hospital under my care about four or five years ago. The whole of his body was covered with large livid blotches, and there was constant hæmorrhage from the nose, gums, fauces, and stomach. His stools and urine, too, contained large quantities of blood. The general appearance of the man was that of great debility, but still his pulse was full and jerking, and I did not hesitate to abstract blood from the arm on three or four different times, while, at the same time, after having purged him with calomel and jalap, I gave him as much as three or four drachms of oil of turpentine in every twenty-four hours. Under this treatment the man got perfectly well; and I have pursued the same practice in several other similar cases (though not so severe) with the same result. The blood which was abstracted separated into scarcely any serum, but its sur-

face was covered with a thick layer of fibrin. If, however, the vascular power is too feeble to render blood-letting proper, then you will often find the mineral acids combined with some of the vegetable bitters of service, allowing the patient, at the same time, a generous diet, with porter or wine, or both, and the free use of fresh vegetables; though I am inclined to believe that the oil of turpentine is a much more powerful agent in arresting internal hæmorrhage than the mineral acids. Colchicum has been highly spoken of by an authority for which I entertain a high respect, but I cannot say that it has answered in my hands; and it is worthy of notice, that in this case the purpura did not appear until the patient's system had been for some time under the influence of colchicum, which he had been taking for many days for his rheumatic affection.

Of the various theories as to the actual pathology of the disease, one has supposed that, in consequence of an increased action of the heart and arteries, the natural resistance of the extreme vessels is overcome and effusion takes place. To this it is objected that purpura more frequently occurs in the most feeble conditions of the circulating powers, and that we do not find it in those cases of acute inflammation, where the force of the heart and arteries attains its maximum of impetus. Another theory ascribes the disease to a want of tone, by which a passive dilatation of the extreme vessels takes place, and consequently red blood passes through, which they are incapable of admitting in their healthy condition; this theory imagines the effusion of blood to proceed from what are termed the exhalant vessels of the surface, and to this it is objected, that if the theory was correct we ought to find some proof of this extraordinary relaxation of the mouths of these vessels by the discharge of their ordinary colourless fluids. A third theory considers the disease as arising from extenuation and fragility of the vessels, whereby they are unable to resist the force of the circulating mass, the consequence being a rupture of the minute vessels, adducing as a proof of their theory the purpura senilis. A fourth attributes the disease to some actual change in the constituents of the blood; and a fifth (which is perhaps the most tenable) to a combination of the two latter causes. The truth is, however, that we are really ignorant of its pathology. There is an excellent lecture on this subject, by Dr. Watson, which was delivered last year at the College of Physicians, from which I have just now quoted, and which I would advise you to read.

LECTURES

ON THE

PHYSICAL EDUCATION AND DISEASES OF INFANTS AND CHILDREN,

DELIVERED

BY DR. RYAN,

At the Westminster Dispensary, 1833.

LECTURE II.

Anthropogeny — Generation — Qualifications for Marriage.

Gentlemen,—In my last lecture I omitted to recommend some valuable foreign works on infantile medicine, under the impression that few of you would refer to them; but I have been requested to mention some of the German productions. The best of these are the works of Jörg, Rosen, Schaffer, Girtanner, Jahns, Fleisch, Feiler, Bëer, and Golis. There are also some small treatises in French by Cailleau, Rougeot, Forestier, Geraudin, Auvitz, Perchier, Lafage, Finot, Comet, and Combes-Brassard; and a few by our countrymen Nisbett, Jameson, Gust Hume, Bummell, Davis, Vernon, and Rees, which I ought to have enumerated in my catalogue of writers on this subject. But I thought it sufficient to notice the best works for your perusal. The physical and literary education of children is discussed by many illustrious philosophers as already stated, and to these we may add the judicious and excellent works of Edgeworth, and Williams on Practical Education. The first of these is a most interesting work, well worthy of attentive perusal.

I shall now beg your attention to the first section of the succeeding lectures, viz. *anthropogeny*, or *generation*.

The perpetuation of our species is a subject that occupied the attention of physiologists in all ages, since the establishment of medicine as a science, and called forth innumerable hypotheses at different periods. In a former lecture I gave you an account of the ancient and modern opinions on this mysterious function of the animal economy, and have described it at considerable length in my work on obstetricy. I shall now proceed to enumerate to you the conclusions of our profession on the most important points relating to the propagation of healthful offspring, including the proper age for matrimony; the good and bad effects of this condition on parents and their infants; the disqualifications, moral and physical, for this contract; the moral, hygienic, and medical treatment of women after conception, during utero-gestation, or pregnancy, embracing the influence of the moral and physical states of the mother on the fœtus, with an inquiry into the power of the maternal imagination in causing marks and deformities. I may here inform you, that almost all these subjects are successively discussed by the father of medi-

cine. Many of his eminent successors noticed some of them, but in general they confined their observations to the phenomena of generation, omitting to describe the moral and physical qualifications requisite for marriage, and the propagation of healthful offspring. A knowledge of these points ought, however, to be possessed by medical practitioners, as there are few matters which society in general consider of more importance, though hitherto much neglected by the profession in this country. Marriage, impotence, sterility, divorce, and population are subjects of deep interest to an immense majority of the public, and afford a vast field of speculation to the theologian, the moralist, the legislator, and the physician. Numerous works have been written upon these topics, but most of them are inaccessible to students and junior practitioners. The work of a celebrated American professor is an exception. Dr. Dewees, Professor of Midwifery in the University of Philadelphia, commences his treatise on the physical and medical treatment of children, with a disquisition on the age and qualifications necessary for marriage, but he makes no allusion to the disqualifications.

His opinions, so far as they go, are well worthy of adoption. I shall, however, extend my remarks much farther, and consider the institution of marriage as a natural, religious, and civil contract, wisely ordained by Divine Providence for the perpetuation of the human race. It will also be necessary to discuss the leading medical questions connected with it, more especially those which affect the well-being of the offspring. The others I have fully described in my work on Medical Jurisprudence. I may briefly remark at present, that medical practitioners are consulted on many questions concerning marriage, both by the legislature, the administrators of the laws, and by society at large. They may be called upon to determine whether marriage is conducive to health or longevity, whether it is proper for persons labouring under certain deformities or diseases, whether one of the contracting parties was of sound mind at the time he or she consented, and if insane whether the disorder was real, simulated, or dissimulated, and, lastly, whether either is physically impotent and incapable of performing the generative act, or is a hermaphrodite. With respect to the ambiguity of sex, I may state that there are some singular cases on record, and others have recently occurred, in which females appeared in male attire, and married without having been detected for several years; and the reverse.

It therefore appears obvious, that there are many physico-medical and medico-legal questions connected with the generative function in our species. Many of these must be passed over in lectures on diseases of children, and belong more properly to midwifery and jurisprudence; others, which are of no importance to you for examination, must be omitted, on account of the youth of some of you; but with all, every one of you will, in due time, become acquainted.

These introductory remarks being premised, I now request your attention, First, to the opinions of moralists and physicians on the importance of matrimony as the natural source or origin of population and of society. Secondly, to the proper age for entering into the matrimonial contract, including observations on constitution, predisposition to diseases, and the immediate state of health. Thirdly, to the good and bad effects of marriage on health and disease. And fourthly, to the disqualifications for marriage, comprehending impotence and sterility.

I. *Marriage a natural, religious, and civil or legal contract, wisely instituted for the procreation and conservation of the species.*—Man was born for society, his condition, faculties, and propensities require that he should associate with other men. At every period of his life he stands in need, and wants the assistance, of others. If we look to the infantile state, we observe that the tender infant cannot long exist unless by the sedulous care of its parents, who protect, clothe, and nourish it. Were it left naked on the ground, exposed to the inclemency of the air, consumed with hunger, or left a prey to ferocious animals it would speedily perish. If we follow it through childhood, we find that, unless it is directed by the advice of other men, and assisted by them, it would be little better than an irrational animal. When the human being arrives at the adult age, he possesses the power of generation, and is bound to protect, support, and cherish the individual who co-operates with him, in perpetuating his species; and hence originates society. Finally, when senescence commences, the same imbecility, the same infirmity recurs as in infancy, therefore, if human society did not exist, the being would fall to the ground, would be affected with various diseases, unremoved or unalleviated by remedies, he could have no food, and must be destroyed by hunger. It therefore follows, that the condition of man, at all periods of life, requires the cares of his fellow creatures. His faculties, senses, reason, voice, gestures, and capacity for learning the arts and sciences require the benefits of civil society. The offices, by which we are bound to all other men, arise from the duties of humanity, or draw their origin from society.

The general principle from which all our social duties are derived, is the golden rule, —do unto others as you would they should do unto you,—the truth of which precept reason demonstrates to every man, for all men are born equal, the same nature is inherent in all; they enjoy the same faculties, want mutual assistance; they are all formed by the same Deity, and they are destined to the same end; all are born with the same reason, they

pass through the same periods of life, and they cease to exist in the same manner. It is therefore necessary that they should be united in one common bond of fraternal charity, as if members of the same family; that they should mutually assist each other in their necessities, that they should live happily together.

Society is defined by moralists the conjunction of many men, for the object of acquiring powers by their united efforts. Laws are made for the good of all, and every rational being ought to obey, uphold, and enforce them. Hence it appears, that every one is bound to obey the laws of his country. Society, or the mass of mankind, is divided into domestic and civil.

Domestic society is that which exists between certain individuals, who, by relationship or contract, form one family, which is necessary to man, and was destined for him by nature; for without this the human race could not be propagated nor preserved. Domestic society is divided into conjugal, paternal, and herile. Conjugal society is a perpetual compact between man and woman to live together in mutual love and friendship, for the procreation, conservation, and education of children. The diversity of the sexes was instituted for this purpose; and there is an innate desire implanted in both to perpetuate their species, their names, and to transfer their property to their children.

Marriage was instituted between the first of our species as a natural, civil, and religious contract, and has ever since been celebrated with a degree of solemnity and importance suitable to its dignity. It is a sacred compact, for which those entering into it forsake their nearest relations and best friends. A mutual love should subsist between them, a mutual charity to bear reciprocally, their natural defects, tempers, and all other inconveniences and infirmities of life. They mutually vow to observe an inviolable fidelity to each other; they are bound to labour with indefatigable industry, so as to augment their means for the sustenance and education of their future offspring, and to provide for themselves in their infirmities and old age.

Mutual fidelity and constancy are conjugal duties; and hence adultery is a grievous injury to either party. Nothing can be more infamous nor injurious on the part of the woman, than to supply an adulterous infant to her husband, and to deprive the real heir of his rights; and it is equally iniquitous on the part of the husband to deprive his wife of her conjugal rights, and his children of his property and affection. Moreover, the desertion of illegitimate offspring is inhuman, and is the cause of an immense destruction of life. It is true that society humanely affords an asylum to such unfortunate illegitimate children; but they still are deprived of that tenderness and solicitude which can only be afforded by maternal affection; and hence the immense mortality of them in foundling hospitals, and their infirm and delicate constitutions.

It is not enough that children should be procreated by parents; they are also to be nourished, clothed and educated; they should be nourished by the milk of the mother, and not delivered to other women, for nature has given the parent the gift required for this purpose, and she never can, unless this is withheld, or unless there is infirmity, or some great cause, omit to afford it; for by the neglect of this sacred duty the offspring suffers not only great inconveniences, but often loss of health and life, and the mother herself becomes liable to diseases, or propagates unhealthy offspring. It will appear in the description of maternal lactation, that nature commands it; that the mind and milk of a stranger affect the mind and body of the infant, and render both dissimilar to those of the parents. The injuries and bad effects of strange or mercenary lactation are universally known, and are graphically described by the author of the Prædium Rusticum as follows:

"At ingenuus puer, qui sub laquearibus aureis
Exoritur, tristi patrios mutare penates
Cogitur exilio, positoque puerpera fœtu
Fœmina dives opum, ventris cum pondere matrem
Exuit, atque boum mugitus inter, alendam
Rus aliquò, sobolem dominâ procul urbe relegat;
Quæque cani sugenda debet, negat ubera nato:
Gibbere, distortis fœdum vel cruribus, annos
Post aliquot, puerum recepit quamplurima passum
Non oculo novit, non pectoris indice motu!"

When children are committed to the care of nurses, maternal love and tenderness diminish, while infantile affection is naturally bestowed on another individual, and finally it scarcely exists towards the parent.

It is an indispensable obligation on parents that they inform their children, by word and and example, of the existence, culture, and love of the Deity, for in infancy we are most tenacious of perceptions; and the greatest care should be taken that children do not see, read, or hear, unless what is good and right, because their memory continues to old age. For this reason, they ought to be removed, as much as possible, from the society of servants. Nothing is more tender, flexible, or susceptible of impressions than the minds of children. There is, therefore, great danger lest they are impressed with indecorous, profane, and obscene ideas, if they are intimate with servants, whose morals are generally corrupt.

Parents should also take care that their children are kept from idleness, the root of all evil, and that at a proper age they are initiated into the principles of literature, the arts, and sciences most suited to their sphere of life. When they arrive at the adult age, and be-

come members of society, they should discharge their social duties, as well advised by Juvenal, in his fourteenth satire:—

" Gratum est quòd patriæ civem populoque dedisti,
Si facis ut patriæ sit idoneus, utilis agris,
Utilis bellorum et pacis rebus agendis."

II. *The proper age for marriage—Constitution—Predisposition to diseases, and the immediate state of health.*—The proper age for marriage, according to the law of this country, is twenty-one in the male, and eighteen in the female; but many physiologists are of opinion, that the ages of twenty-five and twenty-one would more accord with the complete development of the adult. Buffon held this position, " the natural state of man after puberty is marriage;" but this is evidently untenable, because the human body is not fully developed at this period of life, the different functions are not perfect, as the organs are only in the progress of their growth, the offspring would be infirm and delicate, and the sexes totally incompetent to perform the various important duties of parents. It is at the adult age only that the mind and body have arrived at perfection; and therefore moralists and legislators have fixed this age as the most fit for marriage.

It is universally known, that premature or excessive exertion of any part of the body is succeeded by fatigue or decay; and more especially before complete development has taken place. Hence it follows, that the premature exertion of the genital function, or marriage at too early an age, must not only be injurious to the parent, but also to the constitution of the offspring. It is also a moral and medical precept, that both male and female should observe the strictest continence until the adult age, so that the great end of marriage, the propagation of healthful infants, should be accomplished. The ancient Germans did not marry until the twenty-fourth or twenty-fifth year, previous to which they observed the most scrupulous chastity, and in consequence of which, they acquired a size and strength that excited the astonishment of Europe. It is impossible, perhaps, to fix the exact period proper for conjugal union in all cases, because there is so great a difference in the growth of individuals, some being more developed at eighteen or twenty than others at twenty-five. Some girls have been mothers at the twelfth year of their age; and indeed I have attended a case of this kind, and have heard and read of many others. It is common in tropical climates to see girls at the age of nine years married, and become mothers at ten, while in the polar regions, menstruation, or womanhood, does not occur before the eighteenth or twentieth year. It is therefore evident that, taking the whole of mankind into view, it is impossible to fix a certain age for marriage. The evils resulting from too early marriages, are diminished growth and strength of the male, delicate and bad health of the female, premature old age, or death of either or both, and a feeble, infirm, and diseased offspring. It has been long observed by our profession, that persons advanced in life, provided they are healthful, and have observed strict continence, procreate much more vigorous infants than the young, who have injured their constitutions; for as Professor Dewees well remarks, " it is oftentimes better to be old in years than in constitution." This learned physician also observes, that feeble parents may propagate robust children, but these, according to his experience, which is that of more than thirty years, seldom survive beyond the age of manhood, and old age was out of the question. You will see the truth of this statement verified every day. You have only to look at the delicate mothers who present their children at dispensaries, emaciated, and almost moribund, and they will tell you, that for some months after birth it was impossible to behold more robust, or finer children. I have long noticed this fact in hospital and dispensary practice, and have repeatedly pointed it out to my senior pupils.

There is another position maintained by our profession worthy of attention, and it is this, that persons who attain extreme old age, have been married and have had children. Attestations of this fact are afforded by two remarkable instances.

Thomas Parr, who died at the age of 150, was married at 120, and performed his nuptial duties so well at 140, as to make him forget his old age. He was compelled to do penance in a white sheet, for an illicit amour, in the 140th year of his age; while De Longville, a Frenchman, married ten wives, the last when he was in his ninety-ninth year, and she bore him a son when he was in his hundred and second. He died at the age of 110 years. These individuals possessed, in a great measure, the longevity and vigour of the antediluvians; but, in general, the power of propagation is supposed to cease about the seventieth or eightieth year in man, and much sooner in woman. It is said, that the other sex become sterile at the cessation of menstruation, which usually, but not invariably, occurs at the fiftieth year, though, according to M. Magendie, sometimes not before the seventieth year. Now, the universal belief of physiologists is, that while menstruation continues, conception may happen; though this seldom occurs after the fiftieth year. I have met with one case in the sixtieth, if the lady's account be correct. This is a point of great importance, for an instance has lately occurred in the Court of Chancery, I think in May last, (1833) about which I was consulted, and in which a large property was the matter in dispute; and the sole question on which the decision of the Lord Chancellor depended was,

whether a woman might bring forth a child at the age of sixty years. The Attorney General, Sir William Horne, observed, that there was no such case on record, and that if credible evidence could be produced in support of it, he would give up the claim of his client. No such evidence was produced, and he succeeded. I mention this case to show you how necessary it is that medical practitioners should record every fact observed in practice. I was not examined in this case, nor could I give more positive evidence than what the law calls hearsay; but had I been, I should have adduced the examples of Parr and De Longville, and inferred, that if men of 99 and 140 could propagate, there was no physical reason or obstacle to prevent women doing so at the age of sixty. It was fully as rational to maintain this opinion, as to deny the possibility of conception after the age of sixty;—I believe much more so. Nature has endowed both sexes alike in organs and functions in general; but she, no doubt, may be ignorant of the wisdom that presides in our equity and law tribunals. I am, however, convinced, that were the facts I mention submitted to the astute understanding and enlightened mind of the Lord Chancellor, he might have given an opposite decision.

Medical practitioners are often consulted by individuals who are anxious to know whether marriage is or is not conducive to health and longevity. It is now universally admitted, that an answer in the affirmative must be given to all healthful and well formed individuals, from the adult age to the sixty-fifth year, and sometimes even later. Longevity, however, does not depend upon the excellence of proper regimen alone, but on the degree of vitality which is transmitted by parents. An individual born of healthful and robust parents ought naturally to expect a long life; but one whose parents are delicate, feeble, or aged, or affected with scrofula, syphilis, gout, pulmonary consumption, or calculous diseases, will have a delicate and infirm constitution.

Hufeland lays down the following precepts on this subject: —

1st. A person should not marry unless into a family remarkable for longevity.

2nd. He should not marry a woman advanced in life, delicate, feeble, or affected with any deformity or disease, more especially those transmissible by generation, as gout, stone in the bladder, gravel, herpes, syphilis, scrofula, mania, or hæmorrhoids.

3rd. The age most proper for women is eighteen years, and for men twenty-four or five.

4th. They must not give themselves to the pleasures of reproduction but when the impulse is strong, and, above all things, avoid propagation during drunkenness.

5th. Every pregnant woman ought to be considered as a laboratory, in which she prepares a new being, to which the slightest physical or moral emotion is injurious.

6th. Women of a nervous temperament, those who are very irritable, nervous, hysterical, subject to convulsions or epilepsy, ought to avoid matrimony, as they will give birth to infants who can live but for a short time.

This last precept is objectionable, because nervous and hysterical women are often cured by marriage.

Whenever we are consulted as to the propriety of marriage, we ought to recollect that we touch a delicate chord of affections, that man is more than a machine, so that we should combine physical with moral medicine—that science of the heart and mind, with which all the learned or well informed in our profession are well acquainted.

There are many infirmities which are not sufficient to prevent married persons from affording each other mutual succour, and are no bar to conjugal union; but there are others which totally disqualify persons for engaging in this contract—such as malformations and incurable diseases of the genital organs.

Every individual who entertains a doubt as to his capabilities for generation, is anxious to obtain medical advice on his condition; and it is much to be regretted, that it is too often the practice of the profession to treat the matter with levity or derision. Hence few are consulted, an unreserved disclosure of the symptoms is seldom given, and the inquirer is fearful that his condition will be made known to his acquaintances. Every practitioner is bound to secrecy, and so far from treating his patient with levity or carelesness, should consider his case as attentively as any other that may come before him. Were this line of conduct generally adopted, an immense number of the public would not be driven to seek advice from low, ignorant, and unprincipled empirics; who not only defraud them of immense sums, but also of what is far more important, their health. You would be astonished were I to mention numerous cases which have fallen under my observation, in which advertising empirics had plundered patients of sums that would far exceed the amount expended by entire families for proper advice during the whole course of their lives. But we cannot be surprised at this, when we bear in mind the innate love of offspring that exists in the human mind, the dissipation and excesses that are committed, and the inattention of the faculty to the subject. To this day there is not a single work on the moral and physical disqualifications for marriage, except the few lectures I have published. Nevertheless, these subjects deeply interest all ranks of society, and equally deserve our study as well as other diseases. I shall therefore proceed to enumerate the disqualifications for marriage, but as our time has elapsed, I must must defer this subject until our next meeting.

A FEW REMARKS ON EXPRESSION, IN REGARD TO SOME DISEASES.

Taken from notes of Lectures delivered by Sir Charles Bell at the College of Surgeons.

BY JOHN SMALL, ESQ., THAIVES INN.

I INTEND to offer a few remarks on expression; in whatever sense we take it, it is extremely interesting, both to the physician, the sculptor, and the painter; but as the two last are not subjects for a medical journal, we shall confine our attention to the first, *expression in disease*. What does expression not denote; pleasure, pain, sorrow, gladness, laughter, and all the endless varieties to which the human countenance is at times subject. In asthmatic patients, observe what an expression there is in the countenance. When a patient of this kind comes to you, if in great pain, they in general put their elbows on the table, and draw their shoulders up if they wish to draw a long breath. What is this owing to? First observe the *sterno cleido mastoideum*, which arises from the sternum and clavicle, and gets inserted into the mastoid process of the temporal bone, moves the head backwards, but when the head is erect, it acts very powerfully in raising the chest; a little lower is that powerful muscle, the *pectoralis major*, which arises from the ribs, and goes to the shoulder, it raises the arm, and when it does not raise the arm, it acts very powerfully on the chest in breathing; a little lower is the *serratus*, which appears to grasp the chest, turns upwards under the shoulder, and gets inserted into the base; now, when the asthmatic patient rests his elbows on the table, these muscles act very powerfully in raising and expanding the chest; they have, therefore, a double action. The same thing may be observed in fright, a deep breath is drawn immediately, these muscles being put into violent action for the moment, the chest being expanded and drawn up, the eyes fixed upon the object of terror; when these symptoms disappear, those of another character soon show themselves, either in defence or flight. When a person is very much frightened, he cannot speak, his voice is gone; what is this owing to? it is the powerful and violent action of these muscles, and the general shock which is given to the nervous system, the phrenic nerve* having communication with the surrounding muscular nerves, and then ensues, as a consequence, violent commotion in the whole nervous system. A familiar instance of this was seen in the late Mrs. Siddons; in tragedy, where the passions were depicted, nobody but those who have seen can form any estimate of the general sympathy she excited, especially in some scenes after violent exertion of the passions; the violent twitching of the fingers, succeeded by convulsive sobs and sighs, that peculiar curve in the lip, and swelling of the neck, which brought into action the serratic muscles, was truly beautiful. Those who have ever heard Mrs. Siddons read the play of Hamlet, cannot forget the world of meaning, of love, of sorrow, of despair, conveyed in these two lines below, when she says,

"And I, of ladies most deject and wretched,
That suck'd the honey of his music vows†."

In that famous piece of sculpture which represents the dying gladiator mortally wounded in the side, as far as we can judge from the cast in the British Museum, it is really astonishing to observe the expression in the countenance and the general attitude. He is represented leaning on his side, and resting on one hand; the more attentively you observe the expression in the countenance, the more beauties you discover to admire; the expression of the difficulty in breathing, and position of the shoulders, the wide extended nostril, and expanded chest, by the action of the muscles before mentioned.

There is no doubt a great many

* Which is distributed to the diaphragm.

† Characteristic of female affection.

chest complaints may be accurately defined by attentive observation to expression. I remember a case in Bartholomew's hospital, which terminated fatally; the patient was deprived of speech, she had a very curious expression of countenance, widely distended notril, &c.; she could not communicate her feelings to the medical attendant. Upon examination after death, severe inflammation was found to have been going on; a great deal would have been gained if attention had been paid to expression. A very familiar instance may be related: among horse-dealers it is a common custom, when they purchase a horse, to give it a smart cut with a stick between the nostrils; and by the expression of the nostril the horse-dealer knows immediately if the horse is sound in his lungs,—the animal gives a sudden start; and if it should happen that his lungs are not sound, he bends his head between his shoulders (observe the great resemblance to the asthmatic patient), putting the same muscles into action as in man, extends the nostril, and breathes.

Nearly all the ancient poets appear to have understood the expression that resulted from wounds of the chest, but none so well describes them as that prince of poets, Homer. If he describes the wound to have taken place in the chest, it is with the greatest accuracy; and when he makes his heroes die from the wound, he is never at fault. It will not be thought out of place if I intrude one or two specimens of Homer's dying heroes.

In Book x. of the Iliad, line 522—

" The bold Antilochus the slaughter led,
The first who struck a valiant Trojan dead:
At great Echepolus the lance arrives,
Rased his high crest, and through his helmet drives:
Warm'd in the brain the brazen weapon lies,
And shades-eternal settle o'er his eyes.
So sinks a tower, that long assaults had stood
Of force and fire; its walls besmeared with blood."

Again, in line 531, how true to nature—

" ——— and dragg'd the corpse along:
But while he strove to tug th' inserted dart,
Agenor's javelin reach'd the hero's heart.
His flank, unguarded by his ample shield,
Admits the lance; he falls, and spurns the field;
The nerves, unbrac'd, support his limbs no more,
The soul comes floating in a tide of gore."

This is a subject that I could dwell upon a little longer, but in a publication of this kind it would be inconsistent,—indeed, I am afraid I have introduced too much already. The ancients had extremely good opportunities in examining muscular action, in returning from the race (the gymnastic games) the muscles were in powerful action, and even a short time after, from the violent exertion they used. The *platisma myoides* is commonly supposed to be nothing more than a shivering muscle, (it is particularly strong in horses). But there surely must be something more useful in the action of this muscle; when the *sterno cleido* is in action the *platisma* is at rest; in violent exertion this muscle acts very powerfully in the asthmatic patient; and in some old cases of asthma this muscle becomes very much thickened. Observe the agitation of the muscles in a person nearly drowned; here there is great difficulty in breathing, violent action of the muscles of the chest, platisma myoides, and great dilatation of the nostril, which gives the countenance an expression of horror and alarm. In tetanus the flexor muscles are in violent action, although the man is insensible; in violent paroxysms the flexor muscles of the arm and wrist are drawn up, the lower extremities are likewise put in action, the flexors of the back, overpowering the muscles of the abdomen, act so violently sometimes as to tear them across; the lips are in action, and the eye-ball. Similar action occurs with a few variations in hydrophobia during the paroxysms, but here the person is sensible. Observe a woman, if she has met with a great loss, if deeply affected, a husband, a favourite child, or a sister, she seems

insensible to every thing; thus we can duly appreciate the way in which Mrs. Siddons supported these characters.

The capacity for expression, this indication of a mind, susceptible of great or of tender emotions, has a great share in human beauty, whether in the living countenance, or as we see it in sculpture or in painting. Even when unexercised and in the calmest scenes of life, that capacity of energy and exertion, which indicates a great mind susceptible of emotions, strikes the spectator with more admiration than the finest inanimate form of features.

"The full clear eye, the arched and moveable eye-brow, the smooth and polished forehead, as indicating this kind of capacity, this susceptibility of emotion and power of expression are grand features of human character and beauty. And the perfection of this is found, whenever the spectator is made sensible of this inherent, this latent power of expression, even while no prevailing passion gives a cast to the features. But a great portion of the beauty of the human face is in the nose and mouth, in a nostril which has the full capacity for expression without being too membranous and inflatable, for that produces a mean and imbecile kind of fierceness, and in lips at once fleshy and apparently mobile, and capable of that various modulation of form which is necessary to speech, and the indication of human emotion*."

In a countenance of this kind what ravage must disease not make; it is lamentable to think that beauty like this should be destroyed. Beside the asthmatic patient, we observe in many other complaints that expression constitutes the marked appearance of disease. In many diseases of the liver and bowels, we observe great change in the countenance. In diseases of the heart, if we observe very attentively a peculiar appearance. In consumption, the most dreadful of diseases, a glow of unnatural health is depicted in the countenance, before any other symptoms show themselves. Indeed, there is scarcely a disease which does not directly or indirectly affect the human countenance; for my own part, I think medical men would derive great advantage from studying physiognomy in health and disease more than they do; it is in general a neglected science, one which is extremely interesting in the arts, and will eventually prove of great utility in some diseases.

* Sir Charles Bell, on Expression, last edit.

Reports of Societies.

MEDICO-BOTANICAL SOCIETY.

June 24th, 1833.

HUMPHREY GIBBS, Esq., in the Chair.

Lobelia Syphilitica—Lobelia inflata.

DR. SIGMOND directed the attention of the meeting to some beautiful specimens of the lobelia inflata, which had been imported into this country by the late Dr. Richard Reece, and which were presented to the Society by his son, Mr. George Reece. He observed, that the genus of plants of which the lobelia is a species, had been so called in compliment to the celebrated botanist, Matthias de Lobel. Two species had been admitted into the American pharmacopœias, and had been ably treated on by Dr. Barton and Dr. Zolickoffer. The two species were the lobelia syphilitica and the lobelia inflata. The first had obtained its additional name in consequence of the reputation it had at one time acquired in the cure of gonorrhœa, and great expectations had been formed of its efficacy; but experience has shown, that although it possessed power upon the mucous tissue of the urethra, and of the vagina, and that it sometimes had checked different stages of gonorrhœa and of semorrhœa, yet that its action was either not understood or it was uncertain, for in some cases it had aggravated these diseases in a most

extraordinary manner. The lobelia inflata, the subject of his present observations, is a triennial plant, indigenous to the United States, in many parts of which it grows in great abundance, more especially in Virginia, from whence the best specimens were generally obtained. The leaves and capsules of this plant are exceedingly acrid, the taste somewhat resembling tartar emetic. When kept in the mouth some time, great giddiness and pain in the head is produced, with a trembling agitation of the whole body, (this symptom has been particularly noticed by Bigelow), at length nausea and vomiting are produced.

It has been ranked amongst the emetics of the American pharmacopœias, and has been administered in the dose of fifteen grains to excite vomiting, which it usually produces, accompanied by general relaxation, debility, perspiration, and occasionally severe purging. Dr. Eberle had employed it in croup as an emetic, and had found it highly serviceable. It has been externally employed in the shape of an infusion by Stroepf in ophthalmia, but Dr. Cutler first employed it during the asthmatic paroxysm. He had been subject for ten years to asthma, and had experienced scarcely any relief from the various remedies, of which he had tried every sort, he determined to use the lobelia inflata, from having heard it had been employed as a popular remedy. The first dose of a tincture he made allayed the violence of the paroxysm, and its continued use not only warded off its return, but gave effectual facility to his breathing. Dr. Drury found instantaneous relief from it: during a violent fit, in which the embarrasment of breathing was unusually oppressive, a teaspoonful of a saturated æthereal tincture acted like a charm, and in the course of three minutes terminated the paroxysm. On the expiration of ten minutes another teaspoonful was given, which produced a slight nausea. After another ten minutes the dose was repeated,—it excited gentle vomiting and a pricking sensation in the skin, since which period the disease has entirely disappeared, and the general health has considerably improved. Dr. Barton, Dr. Stewart, and other medical men in America tried it with similar success. Although it was first imported into this country by Dr. Reece, who wrote a pamphlet upon the subject, it appears to have been employed in the year 1818 by Dr. John Andrew, of Glasgow; and an interesting paper upon the way in which he became acquainted with the efficacy of the lobelia is to be found in the Glasgow Medical Journal. It has lately been employed by many physicians in London, amongst whom Dr. Sigmond has been led to try its efficacy, and had every reason to add his testimony to those who had preceded him.

The first dose uniformly renders the breathing in spasmodic asthma more easy and natural; it also relieves the bronchial vessels of the mucus which is accumulated, and promotes expectoration. It appears applicable to almost every case of asthma, and may be considered nearly a specific for the disease. It is supposed to produce its effect by allaying the excitability of the eighth pair of nerves. It has also been tried with considerable success in the worst forms of hooping cough. Dr. Andrew, who has tried it very extensively, asserts that he had never found it to fail, with the exception of one case, in speedily curing the disease. He also was induced to try it in an obstinate case of chorea, in which purgatives, antispasmodics, and tonics had failed; forty drops of the tincture, administered three times a day, completely subdued the convulsive motion of the limbs, the patient, a girl of fourteen, soon got well. It also relieves the cough and difficulty of breathing, attendant upon phthisis pulmonalis, in which it may be considered a very valuable palliative of some of the most distressing symptoms. Smoking the dried leaves of

the lobelia has been recommended; a proportion of one fourth to a composition, called by the herbalists herb tobacco, has been found occasionally efficacious. An oxysymph has also been used, which is made in the same manner as oxymels, employing the sugar of whey in lieu of honey. The sugar obtained from the whey of cow's milk does not, like the syrups and the oxymels, ferment in the stomach, and produce that flatulence which is so distressing to those who labour under asthmatic affections. This sugar of whey is produced in considerable quantities by the chemists in Italy.

The American formula is

Lobeliæ inflatæ uncias duas,
Alcoholis diluti octantem unam,
Digere per dies decem et cola per chartam.

Of this from twenty to forty drops are to be taken.

Physicians have generally preferred the tincture to the powdered leaves, but the most efficacious form has been an ethereal tincture, made by dissolving the extract obtained by spontaneous evaporation in compound spirit of ether, of which an ordinary teaspoonful during the paroxysm may be efficaciously taken.

Some remarks on the chemical principles of some of the species of cinchona bark were then made by Mr. Everett. The Society then adjourned until November next, this being the last night of the Session.

THE
London Medical & Surgical Journal
Saturday, June 29, 1833.

THE APOTHECARIES' AMENDMENT BILL.

We are extremely happy to be able to congratulate our readers on the absolute certainty of the passing of the Apothecaries' Amendment Bill, and especially on its extension to English and Irish Surgeons. This act of wisdom, sound policy, and justice was chiefly, indeed almost entirely obtained by the Royal College of Surgeons in London. The warmest thanks of medical reformers are therefore due to this body. The College, alive to the protection of their own members, deputed their President, Mr. Vincent, their Vice-Presidents, Mr. Guthrie and Mr. White, to confer with the College of Physicians and Apothecaries' Company, the Home Secretary, and Lord Advocate, and, after several interviews, the following amendments to the copy of the Bill, published in No. 71 of this Journal (8th instant), were agreed to, and finally adopted by the Committee of the House of Commons:—

I. "Provided always, that such degree of doctor of medicine shall be duly notified to the Master and Wardens of the Apothecaries' Company of London for registration.

II. "And be it further enacted, that any person who has obtained, or who shall hereafter obtain, the diploma of either of the Royal Colleges of Surgeons of London, Dublin, and Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow, shall, upon the production of such diploma, and a certificate of having attended for at least twelve months at the laboratory of a surgeon or apothecary, or of a public hospital or dispensary, be admitted to examination by the Examiners appointed by the Master, Wardens, and Society of Apothecaries of London, for the certificate of his qualification to practise as an apothecary.

III. "Provided always, and be it further enacted, that such examination shall be confined to the subjects of the theory and practice of physic, pharmaceutical chemistry, materia medica, and botany."

We highly approve of these amendments so far as they go, and we have reason to know that they were suggested by the officers of the Royal College of Surgeons.

Though we give our entire assent to the important benefits the intended Bill will confer upon the profession and the public, we must, however, contend, that it is an imperfect piece of legislation in its present form, because it does not confine the preparation of prescriptions to well educated men, who are competent to perform this duty. A clause to this effect should in justice be introduced; but it should also compel those who prepare prescriptions to have this important duty performed by competent assistants, and not as at present by schoolboys or apprentices. If the licentiate in pharmacy is occupied in visiting the sick, he should leave some qualified person to compound prescriptions in his absence. The present system of committing the preparation of prescriptions to chemists and druggists, who receive no medical education, is a direct infringement on the licentiate in pharmacy, as well as an incalculable injury to the public health, and to the reputation of the physician and surgeon.

Chemists and druggists should receive an education which may enable them to do justice to the physicians whose prescriptions they compound, by the intended bill, and ought not to have their rights infringed on by the Company of Apothecaries, who, in their corporate capacity, are the largest wholesale druggists in the kingdom. If the Apothecaries' Society pretend to be a scientific body, let them act as such; and if they choose to act as druggists or tradesmen, let them have no other advantages than those enjoyed by that respectable class of commercial men. The sale of poisons ought to be interdicted, unless good security is given that no improper use is intended to be made of them. The poisoning of Captain Burdett, and ten thousand others, attest the validity of this position.

The new bill unjustly excludes the Dublin apothecaries, who should be eligible for examination at the London Hall, on the presentation of their licences. We trust Mr. Ruthven, one of the honest and able members for Dublin, will look closely to this point, as he is intrusted with the defence of the Irish apothecaries; and we most sincerely hope that he will, next session of parliament, carry his intention into execution, and move, as he proposed to do in this, until requested to desist by the government, "on account of the lateness of the session," for a committee to examine into the state of the Colleges of Surgeons and Physicians in the United Kingdom. These monopolies must be destroyed as well as that of the Apothecaries. The age of hocus pocus and humbug has gone by; and all members of the same profession or calling must have equal rights and privileges.

We are well aware that the Colleges of Physicians and Surgeons in this empire are doomed to reform in the

next parliament; and, unless they are insane, they will, in the meantime, "put their houses in order." It must be manifest that they are in much more danger than the apothecaries were when, some twelve months since, we predicted they would be brought to their proper level; and we feel no small gratification, that our exposures were amongst the means that led to their reformation. We are as sincerely opposed to the abuses in the Colleges of Physicians and Surgeons; and we shall incessantly wage war against them, until they become, or are compelled to become, what they ought to be. No man can accuse us of partiality, or of predilection for any medical corporation in the kingdom; we have lashed every one of them; and shall continue to do so while there is room for animadversion. Our earnest and honest desire is, to use our humble but ardent efforts to raise every class of the profession to which we have the honour to belong to the highest pinnacle of public favour and esteem, and to dissever them from that iniquitous and dishonest empiricism, with which the great mass of society has too much reason, in the present posture of affairs, to associate them. Ours is not the cause of faction, or of party, but of every man in the profession and in the kingdom.

DISEASES OF THE SKIN.

In one of our late Numbers, as our readers are aware, we spoke of our intention to afford them an analysis of the works of recent French authors on diseases of the skin by Mr. Plumbe, and that gentleman has been kind enough to commence his task. We have consequently been able to offer to them the following preliminary remarks from his pen. We shall be well content to allow him, at once, to speak in his own proper person, and are truly happy that, at this early period, he is able and content to do so. After what we said a week or two since, our readers will not be surprised, that we have given him permission to place in our pages whatever he may be able to write for us, either in the form of analysis, translation, or comment; satisfied as we are that it must be interesting and instructive to our readers, and consequently equally contributive to their desires and our own.

Preliminary Remarks to the Analytical Translation of Rayer, Alibert, &c. on Cutaneous Diseases.

For a period of at least fifteen years, originally influenced by the conviction that diseases of the skin formed if not the most difficult at least the most uncultivated field of medical science in this country, I had determined to direct my attention to it, and to see what the most strict and rigid observation of those cases, which I could command, would afford in the shape of new facts in their pathology and treatment. Fortunately I had under my observation a field abounding with such cases, in my character as acting surgeon of the parochial infirmary of St. Giles's-in-the-Fields and St. George, Bloomsbury, and at the same time as surgeon to the Royal Metropolitan Infirmary for Children. From these sources I drew much of what I think I can fairly consider valuable information on these subjects; at all events, I hope my readers will consider, that if I have been at all attentive to what has passed under my eye I shall be competent to the task I have undertaken now of giving the substance of what is known on these subjects in France, as handed to us by our French brethren. These

are my humble pretensions to credit for what I am about to put before the readers of the London Medical and Surgical Journal, as the substance of the writings of Alibert, Rayer, and others on the same subject. I hope, and unhesitatingly believe, that these gentlemen are too much the friends of our science to feel offended by any difference of opinion I may find myself called on to express, but at the same time they must pardon my protesting against their assumption, that they know much more of the subject than we do, because they happen to have better and more extensive fields of observation than we can generally command; unfortunately for this assumption, whether it be true or not, I cannot say. A book, which finds its way into every Englishman's hand *, on visiting Paris, states that though the hospital of St. Louis is dedicated entirely to the reception of patients with diseases of the skin, the practice there is not more successful than in other places. Now if our system, as to the disposal of all classes of patients were like that of the French, we should feel a little uncomfortable after such a publication; still the circumstance is by no means of sufficient importance to justify our thinking lightly of the ideas of such men as those whose names I have mentioned. Our brethren, the French, are I think not likely to be offended with it, and if they were they would cease to be so on being reminded that we are but labourers in the same field.

To MM. Alibert and Rayer I am much indebted for their kind and often very liberal mention of myself, and to M. Biet not the less so, notwithstanding his frequent allusions to the doctrines of Monsieur *Plomb*, as those he cannot agree with! I hope soon to shake hands with each of these gentlemen à l'Anglais, and promise them that I shall say nothing to prevent their joining me with cordiality, but I will analyse them impartially whether they like it or not.

* Paris Guide.

I would have begun with Monsieur Rayer, because he has been flattered with the declaration of some of our authorities here, that his is the best book with which we are acquainted, and should have taken the writings of M. Biet next to those of Monsieur Rayer. Alibert is, however, again in the field with a second edition of his splendid plates, and I shall have the opportunity of adding any thing new which he has advanced since his edition of 1810, to my analysis of the latter. Besides it is by no means clear to me, that he is not entitled to stand before his countrymen, not only on the ground of his seniority as a labourer, but on that of his superior usefulness.

According to M. Alibert, and quoting from the edition mentioned, nothing was known of a large portion of these subjects previous to its date, i. e. 1810. "What do we," says he, "find in authors respecting the nature and specific character des teignes *? uncertain symptoms! vain dissertations! vague and useless details! The ancients have written at hazard, and the moderns have thrown no new light on the subject! I write what I have observed, caring but little what has been said before me."

My readers will, I am persuaded, think me justified, if only from this quotation, in putting M. Alibert prominently before them, and particularly when it was accompanied by illustrations of the different diseases treated of, which could not in this country, until lately, be purchased for less than *thirty guineas*. Let them not be discouraged however by the circumstance of M. Alibert's thinking such expensive illustrations necessary to the due understanding of the different forms of cutaneous diseases. The imagina-

* The common acceptation of this term is the same as the ringworm of this country. It comprehends every form or stage of disease affecting the scalp, all which Willan and Bateman have placed under the head of porrigo, and a portion which I have treated of in the first division of my own humble production, as diseases depending for their peculiar features on the peculiarities of the parts which they occupy.

tion of the physician has gone hand in hand with the fancy of the painter, and the neglect and filthiness of the patient in erecting the fabrics of which M. Alibert's plates are composed. They are for the most part delineations of masses of accumulated scabs and scales, the produce of the diseased action of the vessels of the cutis, and as characteristic marks of any particular disease essentially differing from another in its pathology, they are worth nothing.

A majority of the diseases of the skin are, without doubt, the diseases of the lower class of society in this and every other country, and it would not be difficult to prove that, in proportion as civilisation advances, and the use of clean linen becomes more frequent among that class, the frequency of cutaneous diseases, as well their severity, is diminished. The plica polonica is, I am informed, now become so rare, that it is with difficulty a traveller finds an instance of it in its supposed native country; the explanation of this is simple enough, it was found that attention to cleanliness allowed it to die a natural death. The illiberal reflection on Scotland has been *washed* away in the same manner; the itch is less frequently seen there than among the poor of England at this period beyond all comparison. A country which offers encouragement to industry breeds in its natives those habits, which tend to preserve health and prolong life, &c., and in a great measure frees them from annoying and disgusting diseases of the surface as well as of internal parts of more serious tendency.

Yet there are many which have a very near connexion with, and often a dependence on, the condition of some internal and vital organ, or of constitutional specific disease; many which, by their appearance, indicate a condition of disorder or disease approaching, or established of such organs, and serving, therefore, as a guide to our further inquiries. Such, for instance, are the chronic inflammations of the sebaceous follicles of the skin, known to the joking free-liver by the name of grog blossoms; such, also, those denominated by our classic countrymen, Willan and Bateman, syphilitic lepra. The one leading us to a direct inquiry as to the condition of the liver and stomach, and showing the superior value of internal over external measures, the other to a method of treatment generally more certainly successful almost by the same remedies.

In the works of the French authors I purpose adhering strictly to their descriptions in the first place; and as the reader will very often be confounded at the comparative magnitude and seriousness, as far as such description goes, of such diseases among the French, it is necessary to premise, that in a very considerable number of instances the description will not apply to it as it is known in England.

The disease commonly known by the name of *ringworm* in England is thus described by M. Alibert, and my readers will clearly see why I have so freely expressed myself. "The *teigne faveuse* developes itself by very small pustules or pimples which create an itching more or less violent on the scalp. These pimples contain a purulent matter, which dries up and leads to the formation of crusts hollowed in the middle, the dimensions enlarging successively, and still preserving the circular form. As these pimples sometimes show themselves in great numbers on different parts of the head, their edges sometimes join each other, so that they form by their aggregation plates of considerable extent, in which the eye, nevertheless, distinguishes with facility the cup which characterises more particularly this form of the disease." What decent mother in Great Britain would allow her child's head to bear such an accumulation? This description is, however, quite accurate where simple ringworm has, by a simple parent, been allowed to take its course, without disturbing it by washing. It is seldom seen here now. Willan and Bateman saw it, and

called it *porrigo lupinosa*, because the scabs assumed the form of the lupin seed. I have seen it often among the poor, and sometimes in the family of persons of a respectable grade of society, but then only where a too fond parent had neglected her duty. Among the poor here it seldom preserves its figure, but is broken in pieces, and becomes an irregular mass of dry scabs. Occasionally, and only among the lowest class of paupers, I have seen pediculi crawling in the interstices; but Alibert's description far exceeds mine. He says, "the itching is intolerable; the children find a kind of voluptuous enjoyment in tearing their scalp with their nails. The lice, which multiply in great quantities under the crusts, add further to this torture. All the cavities and fissures are full of them, and the surface of the scalp is so covered that the whole mass of scabs is moved by them*."

The same apparent exaggeration in statement will be found in all the translated parts of these sheets, and yet they are doubtless faithful descriptions of the particular disease of which they treat, as it has been seen in France, and as it appeared to the eye of the physician and recorder in that country; but it is totally different here. I hope now, I trust, that in commenting on the works before me I shall be able to show that true pathology does not consist in the description of the form which a scab may accidentally assume, but on the condition of the vessels of the skin on which such scab, or scale, or vesicle, or pustule may be formed.

14, *Southampton-street,*
Bloomsbury-square,
25*th June,* 1833.

* I have seen two cases of this kind in St. Giles's workhouse some years ago, the first of which I published, with an engraving of the state of the scalp after the filth had been removed. The Editors of this Journal will probably furnish their readers with a copy when I have proceeded a little further.

PREPARATION OF EXTRACTS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—As the present is the period for the preparation of several extracts, and as on the proper preparation of these the efficacy of many hundred remedial applications will be dependent for the ensuing year, I am desirous of calling the attention of medical men and of chemists to the following extract from a lecture delivered a few mornings since at the Westminster Dispensary.

I beg to remain
Yours in well wishing in the
good cause of Med. Reform,
JOHN EPPS, M.D.

89, *Great Russel-street,*
21*st June.*

"I have now, gentlemen, to draw your attention to a subject of considerable importance, particularly at the present moment:—it is the *Preparation of Extracts.* Extractive matter, as it is called, is very liable to chemical change under the combined influences of *heat* and *air.* Some extracts are made from *decoctions,* the extractive matter of which, during the decoction itself, is consequently exposed to a *great degree of heat,* and, to a certain extent, to the air. During the *inspissation* of the liquor obtained by the decoction a further exposure, in many cases, takes place; still further endangering the active principle.

"Other extracts are obtained by *expressing* the juice of the *recent* plant by means of a press; and the watery part is driven off by the *agency of a water bath,* the juice not being at all exposed to the air. Thus the *extractum conii* and the *extractum hyoscyami* are prepared by many chemists, and these extracts thus prepared are often very efficacious.

"But the most efficient method of preparing extracts is by *spontaneous evaporation;* that is, the juice is expressed by the press, and the evaporating agent then made use of is the

heat of the sun. Mr. Smith, of Brown-street, Nutford-place, prepares his *extractum taraxaci* in this way, and it is as different from, and superior to, the extractum taraxaci sold generally as two things of the same nature can possibly be. The extractum conii and the extractum hyoscyami, as prepared in this way, are very efficacious.

"A circumstance, necessary to be noticed with the view of preventing any further injury thence likely to result is, that now the herbalist gardeners are getting into the practice of *cultivating* medical plants, so as more readily to supply the markets. This, to a scientific botanist, is an object of great regret; because to him the fact is well known, that plants lose their medical virtues by cultivation. Look at the wild lettuce (*lactuca virosa*), and the cultivated (*lactuca sativa*). And here it may be noticed, that chemists prepare two extracts from the lettuce, that of the wild and that of the cultivated; and yet, strange to say, in the London Pharmacopœia, the production of individuals enlightened 'by all the collateral branches of philosophy,' (!!) orders only one—℞. Lactucæ foliorum recentium, &c. Here no one is told whether the wild or the cultivated lettuce is to be employed; and yet every one who has used the two must be aware of the wide disparity, in virtue, between them. In the list of the Materia Medica, at the commencement of the Pharmacopœia, these sapient medical legislators have named the lactuca *sativa* as the species to be used; thus recognising the less active, and that which, from its undergoing cultivation, is liable to most variations."

BIRMINGHAM SCHOOL OF MEDICINE.

THE public examination of the students of the Birmingham School of Medicine commenced on Monday, the 31st of May, and terminated on the 4th of June. The following students obtained the honorary medals:—

CLASS.		EXAMINER.
Materia Medica.		
First silver medal.....	Mr. Alfred Baker.	J. B. Steward, M.D., Cant.
Chemistry.		
First silver medal.....	Mr. Harmer.	J. Eccles, M.D. James Johnstone, M.D. W. S. Cox, Esq.
Second silver medal...	Mr. Nourse.	
Midwifery.		
First silver medal.....	Mr. Elkington.	— Birch, Esq. late Lecturer on Midwifery, St. Bartholomew's Hospital.
Second silver medal...	Mr. Evans, Belpar, Derbyshire.	
Anatomy and Physiology.		
First silver medal.....	Mr. Welchman, Kineton, Warwickshire.	Bransby Cooper, Esq. F.R.S.
Second silver medal...	Mr. Elkington.	
Surgery.		
First silver medal.....	Mr. Bolton, Bilston, Staffordshire.	Bransby Cooper, Esq. F.R.S.
Second silver medal...	Mr. Elkington.	

The gold medal given by Sir E. Wilmot, Bart. was presented to Mr. John Elkington; that by Mr. Cox, senior, to Messrs. Horton and Minster. The gold medals were those struck at the coronation of his present

Majesty, and were enclosed in silver boxes, on which were engraved the following inscriptions:—

I. E. Eardley Wilmot, Bvs.
Scholæ Med. Birm. Patronvs,
L.M.D.D.
Ioanni Elkington,
mdcccxxxiii.

E. T. Cox, Chirg.
Scholæ Med. Birm Patronvs,
L.M.D.D.
Ios. Horton et Hen. Minster,
mdcccxxxiii.

The anniversary dinner given by the students to their teachers was afterwards commemorated, and a more distinguished assemblage of learned practitioners and of the patrons of medical science has never before taken place. On this occasion, Dr. John Johnson was invited by the students to take the chair, and the Rev. R. Kennedy to be vice president. The whole length of the table of the large room at Dee's Royal Hotel was filled by upwards of seventy students and friends of the institution. After the health of the King and Queen and Royal Family,

The Chairman addressed the meeting at some length to preface the toast, "Success to the School of Medicine and its Founder." He observed that the school, from the learning and exertions of its teachers, had become capable of affording that primary education in medicine and surgery which formerly could only be obtained at the metropolitan academies. That to render it permanent every step had been taken by its founder, its patrons, and its venerable president—by the zealous efforts of the professors to direct the student in the right course by sending him to the pure and living fountains of science—by the establishment of prizes, and the encouragement of industry by public examinations: ample, he observed, has been their reward in the improvement of the generous youth who now surround us; and amply will the public be repaid by the professional skill of the students who are now beginning to settle in the different adjacent districts, and there to diffuse the benefit of their instruction over suffering humanity. If such be the beneficial results of the establishment of the Medical School of Birmingham, if its permanence be mixed up with the interests of the community, it cannot fail to have their wish—*esto perpetua*. Means, indeed, had been already adopted to make it so. A considerable freehold property had been agreed for, which will furnish space for lecture rooms, chemical laboratory, and all other convenience, and, above all, two noble apartments for the library and museum—of that museum which is so justly our pride and boast, and which, through the exertions of the lecturer of anatomy, has risen up like enchantment, a splendid monument to his spirited, skilful, and unwearied labours, and by which he founded the school, as it were, a second time. Allow me, then, to give "Prosperity to the School of Medicine, and health to its founder, Mr. Sands Cox."

Mr. Sands Cox, after a prefatory address, observed, though he perhaps might assume to himself some little meed of praise in originating and bringing forward the plans of the school, yet its establishment and prosperity depended upon other sources. In the first place, at the very commencement the institution was fostered, and is still cherished, by one who is held in the highest estimation in this country, who is justly termed the father of the profession of this town, and whom we are proud to acknowledge as our president—Dr. Edward Johnstone. In the next place, the liberality of the physicians of the General Hospital in throwing open their practice, and the delivery of clinical lectures by your learned Chairman and Dr. Booth, materially contributed to its foundation. I must next add the exertions of my colleagues, especially Dr. Pearson, who came forward with all the ardour and enthusiasm of youth, at a period of life when he might justly claim to enjoy the *otium cum dignitate*. To these gentlemen the honour of found-

ing and establishing the school is due. Lastly, the students themselves, from the diligence and perseverance with which they pursued their studies, and the proficiency they have displayed at their public examinations, have ever shown that our cause was their cause, and their reputation has been our reputation, therefore we may justly "share the triumph and partake the gale." With respect to myself, I still pledge you that every exertion in my power shall be devoted to render it worthy of the distinguished support with which it is now honoured, and the reputation it now enjoys. I do look forward that the day is not far distant, when the sentiment expressed in this room by our venerable president will be realised—"*that out of the School of Medicine will arise a grand scientific and commercial College.*" He observed, that the chairman had alluded to the museum and library. He took that opportunity to express the deep obligation the institution was under to the noblemen and gentlemen of this and the adjacent counties, who by their sanction had not only stamped the character of the institution, but by their liberal donations had materially contributed to its success and prosperity; and mentioned especially Sir Eardley Wilmot, whose handsome prize of a gold medal, in addition to other favours, has stimulated the students of the present session to exertion. He therefore begged to propose "The health of the Patrons of the School."

The health of the venerable President of the Institution was then proposed—"Dr. Edward Johnstone," who, in reply, professed himself always happy, when it lay in his power, to advance the interests of medical science. He was particularly flattered by the manner in which his name had been coupled with the School of Medicine, and promised ever to give it his full support.

The Chairman then gave "The Teachers of the School of Medicine," eulogising their talents, their learning, and their zeal, regretting that one gentleman was absent, Dr. Pearson, a veteran in practice, a physician of the highest accomplishments, and a teacher to whom the students of the school were particularly indebted.

Dr. Eccles, in reply, said, I return you my best thanks for the honour you have done to the lecturers of the School of Medicine, and to myself as one of them. After the observations which have fallen from our learned Chairman, and from our very able Lecturer on Anatomy, it would be superfluous in me to make any allusion to the origin, progress, and prospects of the School of Medicine. I shall confine myself, on this occasion, to simply express the pride and satisfaction which I and every lecturer of the school must feel at seeing an institution, in which we all take so deep an interest, and to the formation of which we have all contributed our most strenuous exertions, crowned with such signal success, patronised by so many individuals both in and out of the profession, presided over by such eminent characters, and possessing the enthusiastic attachment of so many industrious pupils.

On the health of Sir. A. Cooper being given from the chair, with a remark that, though Sir Astley's fame was known from the rising to the setting of the sun, and though the benefits he had conferred on science and humanity were innumerable, yet his present exertions in anatomy, physiology, and surgery, in advancing age, offered to the students a bright example for imitation.

Mr. Bransby Cooper, in returning thanks, said, that his uncle well knew, and admired much, the School of Medicine of Birmingham, and that he would have been among them that day had it not been for an accident. He did not mean it a mere compliment, but spoke from his own practical observation, when he alleged that the School of Medicine in Birmingham was second to none in the kingdom; and that the schools in the metropolis so far from looking upon it with

jealousy, hailed it as a brother institution, embarked with themselves in one common cause, namely, the promotion of medical science and education. He concluded by proposing the "Pupils of the School," with whose diligence and accomplishments he had been acquainted at the two years' examinations.

Mr. Birch remarked, the proficiency of the students was such that, from his heart, he only regretted that he had not six prizes at his disposal instead of two; and he declared his full persuasion that the pupils had not only obtained a theoretical acquaintance with the subject, but that they were competent to undertake the most difficult duties of practice.

French Medicine.

INSTITUTE OF FRANCE.
April 1, 1833.

Theory of vegetation—Panification—Case of presentation by the head—Galvanism in dyspepsia—Singular case of paraplegia—Hermaphrodism—Three ureters—New remedy for conjunctivitis and falling of the hair—Lithrotity.

M. Biot read a series of chemical experiments on vegetation. He states that carbonic acid is not sensibly contained in certain trees. M. Edwards addressed a note on the formation of acetic acid by germination, in which it was stated that he and M. Colin, professor of chemistry at the school Saint-Cyr, had made a series of researches on the subject, which would be laid before the Academy at a future period.

At the meeting of the 15th, M. Gannal communicated by letter an extract from his labour on panification in general, and particularly on the fabrication of bread from the fecula of potato, &c.—he arrived at the following conclusions:—

1. That the nutritive properties of vegetable substances are proportionate to the quantity of fecula, gum, sugar, and oil that those substances contain; and that rice contains more fecula than wheat, and that barley has a still smaller quantity.

2. That, contrary to the ideas generally maintained, gluten is not a nutritive substance; that it merely forms a cellular layer to retain the gas evolved during fermentation; and that with regard to digestion, its effect is to prevent the fecula from passing too rapidly through the stomach and small intestines.

3. That the fermentation which takes place during panification ought to be solely vinous; and that the bread is of the worst quality when the fermentation is acid, which generally occurs when persons employ, as they generally do, the leavens preserved for whole weeks.

4. That gluten does not undergo any change during fermentation or digestion.

5. That the areolar tissue it forms in bread may be easily isolated from the fecula, by the action of sulphuric acid, diluted with water, and raised to a temperature of 100°.

6. That during panification gluten absorbs more than three times its weight of water, and at the temperature of 55° centigrade it abandons it almost entirely; while it is at this temperature that the fecula combines with water, and is transformed into a starch.

7. That bread made with farinæ of a good quality ought to contain about 50 centimes of fecula, 17 of gluten and ligneous matter, and 33 of water.

8. To make the bread from potato, we ought to unite to the fecula the farinæ that contain the greatest quantity of gluten or ligneous substance rather than the farinæ of good quality.

At the meeting of the 22nd, M. Gannal presented a very white bread to the Academy, composed of the following ingredients:—

Brown farina, 10 kilogrammes		20 lb.
Fecula of potato, 20 ditto		40 lb.
Brown sugar Kitchen salt Yeast of beer	of each about	7½ oz.
Water, 22 litres		2 lb. 5 oz.

He made a paste at night with 10 kilogrammes of farina and 8 litres

of water, which he left untouched until the following morning. He then boiled 14 litres of the water and poured them on the fecula, adding the salt and the sugar. He reduced it to a paste, and allowed it to remain for half an hour, when he added the remainder of the fecula. When the mixture was well made he added the paste of the farina, and baked it for three quarters of an hour at an ordinary heat. In order that the head should have an agreeable crust, it ought to be rolled in the farina and not in the fecula. If we wish to make bread extremely white, instead of the brown farina we should use the farina of the first oatmeal, and 20 litres of water in place of 22.

At the sitting of the 29th, MM. Cayon and Persoz presented very fine bread, containing 33 in 100 of dextrine or saccharine matter.—*Journal de Chimie Medicale de Pharmacie et de Toxicologie, &c., Juin.*

ROYAL ACADEMY OF MEDICINE.

Head Presentations.

MM. P. Dubois, Verey, and Capuron have lately attempted to explain the cause of the presentation of the head at the orifice of the uterus in animals. After much speculation they arrive at no satisfactory conclusion.

Galvanism in Dyspepsia.

M. Andrieux read a paper on the efficacy of galvanism in the treatment of chronic gastritis, and maintained that it was an effectual remedy when the nervous power was enfeebled, and when antiphlogistics and tonics had failed.

Singular Case of Paraplegia.

M. Ollivier d'Angers read a paper on a case of paraplegia, with complete suppression of the urinary and rectal secretions. The patient was under the care of M. Montesanto, and the disease was of fourteen years' duration. The aliments remained a certain time in the stomach to furnish necessary matters for assimilation; and in four or five hours the useless part was rejected by vomiting. At certain times the part of the aliments which took the character of fæces were vomited.

Singular Cases of Hermaphrodism.

M. Rouillaud read a memoir, entitled "Exposition of a singular Case of Hermaphrodism in Man." The individual possessed a uterus, ovaries, a penis, prostate and Cowper's glands, a certain rotundity, and other appearances of the feminine sex.

M. Roux cited an example of two persons resident at Paris, one of whom was married as a woman, but was really of no sex.

M. Rogouette said there was a person at Naples who presented a womb, ovaries, two testicles, and a penis, but all very imperfect.—*Op. cit.*

Three Ureters.

At the meeting of the 16th April, M. Civiale presented a pathological piece of anatomy, illustrating the existence of a thin ureter from the left kidney, and opening into the prostate. He found a difficulty in passing a catheter, as the point went into the opening of the tube in the prostate. The individual was sixty years of age.—*Transactions Medicales Journ. de Medecine Pratique, &c., Mai.*

Deuto-chloruret of Mercury in Conjunctivitis.

M. Sandras dissolves four grains of the deuto-chloruret of mercury in four ounces of distilled water, and injects it softly over the inflamed conjunctiva. The application is followed by a slight augmentation of heat, pain, and redness, which speedily are not perceptible. The fluid should be applied from twelve to thirty times a day, and in two or three days a cure is effected. It failed in seven of fifty cases, and never did any injury.

Ointment to prevent the falling of the Hair.

Beef marrow .	6 gros
Oil of sweet almonds	2
Red cinchona .	1

Mix the cinchona with the oil, and add the marrow after being melted. Some essential oil may then be mixed with the ointment.—*Jour. Therapeutique.*

ACADEMY OF SCIENCES.

June 10, 1833.

Civiale the Inventor of Lithotrity.

M. DOUBLET read, in his own name and those of MM. Larrey and Boyer, a report on M. Civiale's account of the treatment of calculous persons at the Hospital Necker; and after speaking in the highest terms of praise of M. Civiale, he regarded him as the discoverer of lithotrity.—*Journ. Universel et Hebdomadaire, Juin.*

SPLENDID WORK ON ANATOMY.

WE have had submitted to our inspection some specimens of a work of great importance, which is on the eve of being brought before the medical public. Drs. Bourgery and Jacob have undertaken to publish a translation from the French, of a very complete treatise on Human Anatomy, comprising operative medicine which has been very popular in France. It is illustrated by a series of lithographic drawings taken from nature. It will be published in about 50 Numbers, one of which it is proposed will appear every month, at a moderate price, so as to bring it within the reach of the different members of the profession. The economy of lithography will enable the authors to give an elaborate and laborious work at a moderate price. The prospectus that has been issued informs us that

"This treatise will form eight volumes in folio, embellished with from 450 to 500 lithographic drawings. It will consist of four parts:—1. Descriptive Anatomy; 2. Surgical Anatomy; 3. General Anatomy; and 4. Philosophical Anatomy.

"*Descriptive anatomy* will be presented with all its details and applications, as well physiological as pathological. This part alone will take up five volumes. The first will contain osteology and syndesmology; the second, myology and the synovial membranes; the third, neurology, the organs of sense, and the larynx; the fourth, the apparatus of circulation and of respiration; the fifth, those of digestion, of generation, and embryotomy.

"*Surgical anatomy* will comprise three sections. The first, or what may be termed *anatomy of inter-organic insulation*, will exhibit the organs separated from the whole, and indicate some of their diseases, mechanically circumscribed and limited to the interior of aponeurotic lodges and osseous parietes of the splanchnic cavities; such, for instance, as cysts, indurations, &c. The second, or *anatomy of inter-organic communication*, has for object, on the contrary, to point out the means of union between the organs, the pathological effect of which union is to facilitate the development and extension of diseases. In these two cases, the agent in general is the cellular tissue; the ways, those followed by the vessels. In this category may be ranged the infiltrations and extravasations of different fluids, abscesses, aneurisms, œdema, and emphysema. It is in the cellular spaces that most tumours are developed, and through which extraneous bodies are expulsed from the economy; it is through the apertures destined to give egress or ingress to the large vessels that most herniæ are protruded. Finally, the third section belongs to the *anatomy of regions*, the only one which has hitherto arrested the attention of surgeons: susceptible of consideration only in an operative point of view, all the operations therein described and delineated, together with the instruments made use of to perform them, will more particularly refer to this section. Statistical corollaries will be deduced from the premises therein contained, expressive of the relative value of the principal methods, and also the amount of the result obtained from a great number of operations performed at different periods, under various circumstances, and by surgeons

of different nations. The sixth and seventh volumes will comprehend *surgical* and *operative anatomy*.

"The eighth volume will include both *general* and *philosophical anatomy*. General anatomy will present the study of each tissue under two aspects, establishing the connexion between histology, properly speaking, and pathology; 1st, as a whole, and as a system distinct from the organism; 2ndly, separately in each locality wherein it is found, as an integral part of a functional apparatus. Philosophical anatomy will be composed of three sections:—1. the laws of formation of the organism, on which depend the theories of the vertebra and those of monstrosity; 2 the influence of physical and moral causes on the organism, considered collectively and individually in the different races of human beings, from which result their divers degrees of superiority and inferiority, whether physical or psychological; 3. the comparison of the organisation of man with that of vertebrated animals.

"All the plates will be drawn from nature. The plates which are to accompany descriptive anatomy, such as those of the head, the hand, the foot, the viscera, the genital organs, and generally those parts offering a certain degree of surgical importance, such as the pelvis, the inguinal region, the axilla, the neck, the bend of the arm, and the popliteal region, are represented in their natural dimensions: the other parts are reduced to half the ordinary size, which is large enough considering the extent of the parts, and more convenient, inasmuch as it will allow of the whole drawing being seen at a single glance. As to what relates to surgical anatomy and the most important operations, the objects will be drawn of the real size, in order to impress on the reader's mind exact and lasting images. Finally, with respect to the details of minute anatomy and of general anatomy, the objects relating to them will be magnified to a greater or lesser number of diameters, as occasion may require."

This treatise has obtained the greatest support in France, and Baron Cuvier gave the following report to the Institute of France.

"The work now before us appears more especially remarkable with respect to its exactness and elegance; it is one of the few destined to introduce pupils into the surest paths of knowledge, and to furnish scientific men with reminiscences the most complete.

"The text is no less conspicuous on account of its method, lucidity, and conciseness, as well as its philosophical tendency. The figures represented in the drawings astonish us by the variety and minutiæ of their details, the beauty and mellowness of their contours, and the relief with which they rise up, as it were, from the paper; qualities which are further heightened by the illusion produced from the magic effects of light and shade; in a word, they are masterpieces of art and of difficulties subdued.

"This work, undertaken and executed on an immense scale by two able and persevering men, and presented withal to the public at a moderate expense, appears to us calculated to advance science, at the same time that it does the highest honour to the nation."

BOOKS.

The Homœopathic Medical Doctrine, or "The Organon of the Healing Art," a new System of Physic. Translated from the German of S. Hahnemann by CHARLES H. DEVRIENT, Esq., with Notes by SAMUEL STRATTEN, M.D. Dublin: Wakeman; London: Simkin and Marshall. 8vo. pp. 332. 1833.

The Teeth in Relation of Beauty, Voice, and Health, being the result of twenty years' practice, experience, and assiduous study, to produce the full development and perfect regularity of those eminent organs. By JOHN NICHOLLES, Surgeon Dentist. London: 1833. Hamilton and Co. 8vo. pp. 134.

This is an instructive and interesting work for the general reader. It will be perused with advantage by mothers, to whom it is dedicated.

ALL Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 75. SATURDAY, JULY 6, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XLIII., DELIVERED JAN. 24, 1833.

Gentlemen,—I propose in this lecture to finish the subject of fractures of the upper extremity.

Fractures of the humerus are distinguished into those which take place higher up than the insertions of the pectoralis major and latissimus dorsi muscles; into those of the middle of the shaft of the bone; and into others situated nearer the elbow. You will sometimes hear mention made of *fractures of the neck of the humerus*, but the expression, as applied to the cases usually met with, is not correct, for it would lead you to suppose, that the accidents spoken of were really fractures of the true anatomical neck of the humerus, within the capsular ligament; but this is not the case, nothing more being signified than that the injury has happened at some point above the insertions of the muscles, which have been specified. Fractures of the humerus immediately below the tubercles are exceedingly rare in the middle period of life; indeed, I may say that they are rare altogether; but when they do occur, it is generally in very old or very young persons. Instances have been known, in which the fracture was situated precisely in the true neck of the bone; one example of it fell under the notice of Sir Astley Cooper, who had an opportunity of dissecting a subject, in which he found the fracture actually placed, as I have mentioned, within the capsular ligament. No bony union had occurred, but the fragments were joined together by means of a ligamentous substance. When the fracture takes place somewhat lower down, that is to say, below the tubercles, you will find that the upper fragment has a tendency to be drawn outwards by the supra spinatus and teres minor, and the lower fragment to be pulled inwards by the latissimus dorsi and pectoralis major, and at the same time upwards by the biceps, coraco brachialis, and long portion of the triceps.

You should be careful, gentlemen, always to discriminate fractures of the upper part of the humerus from dislocations. In a fracture, as the head of the bone is yet in the glenoid cavity of the scapula, there is not the hollow under the acromion remarked in a dislocation: however, there may be a little depression, or diminution of the rotundity of the shoulder, in consequence of the lower fragment being sometimes not displaced upwards so as to produce a shortening of the limb, but, on the contrary, being actually drawn a little downward by the weight of the part, so as to put the deltoid on the stretch, and thus, in one respect, a degree of resemblance to a dislocation may be produced. On careful examination, however, you will feel the head of the humerus in the glenoid cavity, and you will observe also, that the shaft of the bone does not offer that resistance to being moved about in various directions, which is experienced in a dislocation. In the latter case, the head of the bone may generally be felt either in the axilla, or under the pectoral muscles; in a fracture, there is a crepitus; in a dislocation this symptom is absent.

Fractures of the middle of the humerus are very common, and easily recognised; for when the fracture is oblique, there is a shortening of the limb, and not only does displacement happen in this, the longitudinal direction, but there is also an angular deformity, the limb being flexible in the situation of the injury, in consequence of the solution of continuity in the bone. A crepitus will likewise be very readily perceived, so that no difficulty can present itself in making out a fracture of the middle third of the humerus.

Fractures, situated low down towards the elbow, sometimes extend into the joint, and either the inner or the outer condyle may be detached. By a careless practitioner, oblique fractures, detaching the condyles, may be mistaken for a dislocation of the radius and ulna backwards; but the error will not occur if you recollect that, in such fractures, there will be crepitus, and that after you have apparently reduced what may be supposed to be a dislocation, the displacement will immediately return on your leaving the limb to itself.

In the treatment of fractures of the humerus, the principal indications, after the requisite extension, counter extension, and coaptation, have been performed, are, first, to support the fragments duly in their proper position, with respect to each other; secondly, to prevent all motion, not only of the broken bone itself, but also of the ulna and the radius. With these views, when the fracture is situated above the insertion of the pectoralis major and latissimus dorsi, the best plan, after directing the assistant to take hold of the elbow and wrist, and to keep the fore-arm perfectly at rest in the bent position, is to place the wedge-shaped compress in the axilla with the thick part uppermost, and then to put a splint along the outer part of the arm, in order to incline the superior fragment outwards. The splints used for the humerus, if not padded with tow, must be lined with a sufficient quantity of folded linen. A roller is to be applied, for the purpose of fixing both the compress and the splint. Care must also be taken to support the fore-arm and elbow in a sling. In these cases, there is no necessity for any considerable degree of extension and counter-extension, because the displacement is generally but trivial. A sling of the kind I now show you, and which may be procured at Mr. Weiss's, is particularly useful, because it admits of being shortened, and adapted to the length of the fore-arm in different subjects. This treatment will answer very well for fractures above the insertion of the pectoralis major and latissimus dorsi.

When the fracture is situated in the middle third of the humerus, it is usual to apply either two or four splints; some practitioners use four, and others only two, one on the outer part of the arm, and the other on the inner side of it. A sling is always necessary. You should desire an assistant to take hold of the elbow and hand, and support the fore-arm, while you put on the apparatus, during which part of the business, you should request him to make a little extension, so as to bring the ends of the fracture in apposition.

When the fracture takes place more towards the elbow joint, common splints are not much recommended, because they are deficient in one material respect, namely, they cannot control the movements of the radius upon the articular surface of the humerus, which must evidently be very detrimental to the favourable progress of the case. Such a splint can operate also but trivially and imperfectly, even in steadying the fragments of a fracture so low down; for only a small part of the apparatus extends below the solution of continuity. Of late years, therefore, it has been customary to employ, in cases of this description, an angular splint, one part of which is adapted to the inner side of the arm, and the other part to the palmar side of the fore-arm. I consider this apparatus far more efficient, and better calculated to fulfil scientifically the chief indications. The angular splint, put on in the manner I have explained, acts powerfully in keeping the humerus steady, and in preventing all motion of the elbow joint and bones of the fore-arm. Simple as the contrivance is, and essential as it is to the successful treatment of fractures near the elbow, you will be surprised to hear, that it has only been introduced into practice of late years. Of course I scarcely need remind you, gentlemen, that you would put the arm in a sling in this fracture, as well as in those taking place in higher parts of the humerus.

When the outer condyle is detached, you should endeavour to relax the muscles arising from it, which is accomplished by placing the hand in the supine position, with the fingers extended; on the contrary, when the inner condyle is broken off, the muscles, arising from that process, should be relaxed, which is done by placing the hand in the state of pronation, with the fingers bent. If the hand be kept supine, the angular splint already described will not fit the limb; and another kind of splint, which is also an angular one, but so contrived as to accommodate itself to the front of the arm, will be useful, with a corresponding one for the posterior part of the limb.

If, gentlemen, when you are called to a fracture of the humerus near the elbow, you should not happen to be provided with angular splints, I recommend you to use strong thick pasteboard, which, after being softened in water, is to be put on. When dry, it will form an excellent case for the limb, answering in every respect as well as the angular splint. I mention this, that you may not be at a loss, if you should not happen to have the right splints at hand.

Now, gentlemen, with regard to *fractures of the bones of the fore-arm*, I hardly need tell you, that they are remarkably common, especially those of the radius. Fractures of the radius are, perhaps, as frequent as those of any other bone in the body, except the clavicle; and the reason of this is, because it is articulated with the carpus, and has to receive all the force communicated to the hand in falling, and indeed on every other occasion. When a person falls, he stretches out his hand to save himself; this part then comes violently in contact with the ground, and the force is immediately communicated from it to the radius, which bends and gives way generally in its central portion, but sometimes near the wrist, a fracture of the upper end of the

radius rarely or never happening in this manner. The majority of fractures of the radius takes place in its middle third, or near the wrist; and when the upper part happens to be broken, the injury arises in a different way from what is exemplified in the more usual instances, namely, it is produced by a blow, or some species of direct violence. Another reason why the radius is oftener fractured than the ulna is, that the former is situated at the outer and upper part of the fore-arm, so that it is more exposed to the action of direct violence than the neighbouring bone.

Gentlemen, when you suspect the radius to be fractured, you should first inquire whether the patient can or cannot perform the movements of pronation and supination of the hand; for, if he can do these well, then you may be certain that the radius is not broken. Or, if you please, you may take hold of the patient's hand and rotate the radius yourself, while the fingers of your left hand are placed upon it. You will find, if the bone is not broken, that the upper portion of it will follow the movements of the hand, as it always naturally does; but if it is broken, considerable pain will be felt on attempting these motions of supination and pronation,—there will be a crepitus; and the upper fragment will remain motionless. In many instances, you will perceive displacement, which is always in one direction, the fragments tending towards the inter-osseous space; for there can be no alteration in the length of the bone or limb, while the ulna remains perfect, which serves indeed as a kind of splint.

When *both bones* are *broken*, the nature of the accident is still more obvious, because there will then be an angular deformity of the limb, a distinct crepitus, and a loss of the motions of supination and pronation. *Fractures of the ulna* alone are generally produced by direct violence, as blows, kicks, &c., for any force or violence communicated to the hand has little or no effect upon that bone. This circumstance must let you at once understand, why, when the ulna alone is broken, it is by direct violence; and why, also, when both bones are simultaneously broken, it is most commonly by direct violence, such as the passage of a heavy body over the arm, or a violent fall, or blow on the injured part.

The treatment of fractures of the fore-arm is simple enough. When the radius is broken, you should, in the first place, bend the elbow, and then make a little extension and counter-extension, taking care to avoid pressing the ends of the fracture into the inter-osseous space; indeed, I may observe, gentlemen, that it is a grand point in the treatment of these injuries to preserve the inter-osseous space perfect; and, if you neglect this indication, the radius and ulna may become united together, and the motions of supination and pronation be for ever lost. Splints for the fore-arm, therefore, should not be jointed longitudinally, but be rather of a flat or trivially excavated shape; and I recommend you to avoid a tight bandage, which would depress the radius too much against the ulna. Two splints are commonly put on; and, after the reduction, either no roller at all should be applied directly to the fore-arm itself, or merely a very slack one. Then one of the splints, properly padded or lined with soft materials, is to be laid along the inner part of the fore-arm, from the bend of the elbow nearly to the ends of the fingers, and another along the outside of this part of the limb. It is generally considered best to keep the radius nearly in a mid state between pronation and supination. Sometimes, when the radius is broken near the wrist, and a good deal of swelling is present, you might be inclined to suppose the case a dislocation, but generally there will be no difficulty in finding out that the case is a fracture, for, to say nothing of the rarity of such a dislocation; the nature of the injury is generally indicated by a crepitus, except in young subjects, in whom the case is often a mere separation of the epiphysis. You can always however feel the styloid process of the radius below the solution of continuity; if displacement occur, the lower fragment is mostly drawn backward by the action of the long supinator and extensor carpi radialis, but, in few instance, forward by the influence of the pronator quadratus. The reason of the greater frequency of the displacement backward is, in some measure, explained by the patient usually falling directly on the hand at the period of the accident, by which means the fragment is forced backwards. Here the same treatment is required as in a common fracture of the radius; the fragments must be put in their proper position, and splints and a sling employed.

The olecranon is most liable to be fractured by falls on the elbow, and not usually by the action of muscles, as is the case with the knee-pan. It may be broken at its point, or more towards its base. In some instances, when the fracture occurs near its base, and the ligamentous fibres, extending from the olecranon to the coronoid process of the ulna, are not completely ruptured, the upper fragment may not be displaced or retracted; but if those fibres be completely torn, the upper fragment will be drawn upwards by the triceps, and this sometimes in a considerable degree. The extent of separation between the fragments will also be much influenced by the circumstance, whether the elbow be bent or extended, for, in the latter position, the lower fragment does not contribute to the displacement at all; but, when the arm is bent, the lower fragment recedes, and materially increases the interspace between the fracture. When the upper fragment is drawn away from the lower one, no crepitus can be perceived, unless you extend the arm, and press down the upper fragment; but the nature of the case will always be clear enough, even without this symptom, except

when the limb is very much swelled. Here, gentlemen, I should mention to you, that the swelling, consequent to fractures about the elbow, is frequently prodigious, and comes on with surprising rapidity, so that it is an object always to examine the limb well at an early period, before any obscurity has arisen from the enlargement of soft parts. Whether the patient retains any power of extending the arm depends upon whether the ligamentous fibres, spread over the olecranon from the coronoid process, happen to be torn or not; because, if they should be completely ruptured, that power would be nearly or quite abolished.

There is a difference of opinion among practitioners, respecting the best mode of treating fractures of the olecranon. You would naturally suppose, that the treatment ought to be conducted with the limb perfectly extended, the greatest approximation of the fragments being thus produced; but Désault, the great predecessor of Dupuytren, at the Hôtel Dieu in Paris, objected to this posture of the limb, on the ground that, although the fragments grew together, yet they were separated at their internal edges, and, when it was adopted, the joint remained permanently weak. Hence he recommended a middle position, between the half-bent and perfectly extended state, or, in other words, a trivially bent position of the elbow. The same practice is also preferred by several surgeons at the present day, as being, according to their judgment, less irksome to the patient and more efficient, inasmuch as the cure takes place without any imperfection being left in the action of the joint. But, gentlemen, do not consider this view as one entirely settled, for I have to inform you, that several surgeons of vast experience, among whom is Sir Astley Cooper, are decidedly of opinion, that the extension should be complete. Sir Astley Cooper finds, as other surgeons do, that the olecranon generally unites by ligament, and he observes, that if the limb be kept somewhat bent, there will be a greater length of the ligamentous substance, and the joint will be proportionably weaker. The late Mr. Sheldon was an advocate for complete extension, and, as far as my own experience goes, I have found no reason to follow Désault's advice on this matter. In fact, I have never seen any ill consequences from keeping the arm extended, and mean to follow this method, until its disadvantages have been more clearly proved. You will frequently find, that, in a fracture of the olecranon, you cannot apply the bandage, or any splint, until the third or fourth day after the accident, and sometimes not till later. Now this is one example, in which the good general rule of applying the splints, as soon as possible, to a broken limb, should be dispensed with; your duty is to try to reduce the inflammation and swelling before any apparatus, that makes pressure on the limb, can be advantageously applied. You are called upon, therefore, to employ leeches, cold evaporating lotions, purgatives, and even bleeding from the other arm, if the inflammation and swelling are very considerable. The inflammation having been reduced, you apply a figure of 8 bandage, which will answer pretty well, especially when a well padded splint is laid along the front of the limb, in order to prevent flexion of the joint. If you choose to adopt the plan of slight flexion, you may put on a splint, constructed with a kind of hinge, or joint, exactly in front of the elbow, and furnished with a screw, by means of which its degree of flexion can be regulated and fixed. Such a splint I will take an opportunity of showing you.

Another part of the ulna, liable to fracture, is the *coronoid process;* now, when this is broken, and the arm extended, the olecranon projects back in such a degree as to create the appearance of a dislocation; but you will know that this is not the case, because directly the arm is bent, the olecranon returns to its natural place again. The discrimination of this fracture from a dislocation is then free from difficulty, particularly, as in addition to the circumstance I have mentioned, you will perceive a crepitus. The treatment is very simple, consisting in keeping the fore-arm and elbow at rest in the bent position, and applying a figure of 8 bandage round the joint, after having had recourse to leeches, cold lotions, &c. for three or four days, in the event of the swelling being considerable.

But, gentlemen, fractures about the elbow are not always so simple as the cases we have been noticing: they are sometimes very complicated. The preparation, which I now pass to you, illustrates a case in which the ulna is broken at the elbow, the posterior fragment being displaced backwards by the action of the triceps, and the coronoid process broken off: then the upper head of the radius, you will observe, is also dislocated, from the lesser sigmoid cavity of the ulna, and drawn upwards by the action of the biceps. Here, therefore, you have a complicated accident, in which the ulna is broken in two places, and the upper head of the radius dislocated forwards.

Fractures of the *carpus*, *metacarpus*, and *bones of the fingers*, need not long detain us. The carpal and metacarpal bones can only be broken by great direct violence, as by gunshot wounds, the action of machinery on the parts, or the passage of the wheel of a heavy carriage over them. Now, under these circumstances, so much injury is frequently done to the soft parts, that it becomes necessary to amputate without delay. However, if the case will admit of an attempt being made to preserve the limb, the main indications will be to remove all loose splinters of bone which are near the surface, to apply for the first three or four days light superficial dressings and cold lotions, and afterwards emollient fomentations and poultices, till the inflammation has subsided and the sloughs have been detached. If there has not been much bleeding from the part, leeches may be applied to it. The bones

of the fingers are seldom fractured, for they can only be broken by direct violence. The treatment is very simple, the injured finger merely requiring to be supported with pasteboard, and the hand kept in a sling.

Gentlemen, I next proceed to consider *fractures of the pelvis.* The particular shape of the pelvis, the sort of circle or arch which it represents, and the vast strength and thickness of its several bones, are circumstances at once apprising you, that the pelvis can only be broken by great and extraordinary degrees of violence directly applied to it; as by the passage of a heavy wagon over it, or by its being pressed between the wheel of a heavy vehicle and a wall or post. From the manner in which these fractures usually happen, you will immediately perceive, that the injury done to the bones is unfortunately the slightest part of the mischief; the soft parts generally, and often the bladder or colon, being seriously injured. Sometimes the bladder or intestines are ruptured; sometimes blood is extravasated either in the abdomen or the pelvis; and, in other instances, where the rami of the ischium and pubes are broken, spiculæ of bone may be driven into the bladder or urethra. This preparation illustrates a case in which there was a fracture of the ramus of the ischium, and one of the fragments tore the urethra; the consequence was, an effusion of urine into the cellular substance of the perineum, and a great deal of sloughing of all the parts among which the urine passed. Here is another preparation, taken from a person whose rectum was lacerated by a portion of fractured sacrum. In such cases, you will frequently find that one consequence is a paralysis of the bladder and the lower extremities. In fractures of the pelvis from gun-shot, spiculæ of bone may be forced completely into the bladder, and afterwards become the nuclei of calculous formations, so as to oblige the patient afterwards to submit to the operation of lithotomy. Some examples of this fact are related by Larrey.

Fractures of the anterior superior spinous process, and of the crista of the ilium, may take place, however, without much additional mischief, but other fractures of the pelvis are frequently fatal. I have seen two cases, in which the accident arose from the passage of heavy wagons over the pelvis; one of these patients died in a quarter of an hour. There will sometimes be effusion of blood into the abdomen; and, in other instances, as I have already said, the bladder or intestines are ruptured. You should also be aware, that the fracture may extend through the acetabulum, and then the case is liable to be mistaken for a dislocation of the hip; because the superior fragment is drawn upwards, and the limb consequently shortened, while the trochanter major is thrown a little forward; and thus there will be two symptoms of a dislocation of the hip. However, if you apply your hand to the crista of the ilium, and then rotate the thigh bone, you will have no difficulty in making out the nature of the accident; for there will be a crepitus, and not that considerable resistance to motion of the femur, so invariably experienced in a dislocation. This particular case, gentlemen, I deem well deserving of your recollection.

With regard to the treatment of fractures of the pelvis, if we except antiphlogistic measures, there is not a great deal to be done. A bandage might be applied round the pelvis, but as its usefulness is questionable, the best practical surgeons do not have recourse to it. You would, as a matter of course, bleed the patient freely to prevent inflammation of the pelvic viscera; and if the bladder were ruptured or paralytic, you would introduce a catheter to prevent effusion of urine. You would do the same thing, if the urethra were ruptured. Under such circumstances, you would keep the catheter in the passage, lest the urine should escape by the lacerated opening into the cellular membrane, whereby great and sometimes fatal mischief would be produced. Repose, antiphlogistic measures, and attention to any particular symptoms which may arise, but especially retention of urine, are the chief objects in the management of fractures of the pelvis.

I should mention, that some cases of fractured pelvis have a favourable termination, the bones uniting and the patient recovering. This preparation was taken from a person in whom the sacrum and os innominatum had both been fractured; yet, you perceive, union of the broken parts, has taken place, and the patient probably lived long after the injury. The chances of recovery depend, however, on the degree of violence with which the injury was inflicted, and its effects on the viscera; for if the bladder, bowels, medulla spinalis, and other important organs escape injury, the patient may ultimately get well. Sometimes he dies of peritonitis, of which I have seen instances.

CLINICAL LECTURES

DELIVERED BY

DR. WILLIAM STOKES,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE VII.

Pathology and Treatment of Hydrophobia.

GENTLEMEN,—At my last lecture I briefly noticed the various questions connected with the subject of hydrophobia. I mentioned that it was a disease of which we have no distinct account from the earlier Greek physicians, that it was known and described by the Romans, and that the mode of preventing the absorption of the virus by the application of cupping glasses, to which the attention of our profession has of late been strongly directed, was recommended by Celsus. I alluded to the origin of the virus of hydrophobia, and

stated that it might arise in animals of the canine and feline species spontaneously from a peculiar unknown morbid condition of the system, and be afterwards communicable to man and other animals by the introduction of the saliva. You have seen that the animals in which this disease appears, without distinct proofs of the reception of a contagious virus, are the dog, fox, wolf, and cat; and that in man and all other animals no case has occurred which cannot be traced to distinct inoculation. You have also seen that the only animals capable of communicating the disease are those of the dog and cat tribe; or, if others possess this power, it is in an infinitely less degree; and that there is no instance on record of it being communicated from man to man. I also mentioned that the exciting causes of the disease in animals were very imperfectly known; that the existence of a virus, though doubted by some, was unquestionable, every thing combining to prove rabid hydrophobia a distinct disease; and I detailed the opinions and practice of Dr. Marochetti on the subject. The last question on which I was engaged was, whether hydrophobia is communicable by inoculation with the saliva alone, and whether the flesh and milk of rabid animals may or may not be used with impunity.

From the experiments of Dupuytren, Magendie, and Breschet, it appears that hydrophobia cannot be communicated by inoculation with the blood of rabid animals, or by injecting it into the veins; and it would appear that there is no evidence to prove that the fact of a man or other animal having died hydrophobic renders wounds, received in dissection, more than ordinarily dangerous. On the other hand, Hertwich of Berlin states, that the blood and substance of the salivary glands are capable of conveying the disease, and that the power of communicating it exists at every period of confirmed rabies, and even for twenty-four hours after death. Still the opinion that the flesh of rabid animals may be eaten with impunity is confirmed by his researches; and he has stated, that of twenty-two dogs which were made to swallow the virus none took the disease. Some years since, the whole of a flock of ewes belonging to a gentleman in this country were bitten by a dog in which symptoms of decided rabies appeared. All these animals died of confirmed rabies; but it is a remarkable fact, that not one of the lambs who sucked them while in that state took the disease. There are also several instances on record of persons having eaten the flesh of rabid animals without injury; and we may therefore conclude that the flesh and milk of rabid animals may be eaten with impunity.

There are some facts of importance which remain to be stated, with respect to the virus. No doubt can be entertained, that in animals as well as in man there exist peculiar states which predispose to the reception of the poison of hydrophobia. Hertwich inoculated fifty-nine dogs with the saliva of a rabid one; fourteen only of which became affected with the disease; and he mentions, that in those cases where the contagion failed in producing any effect, no reason could be assigned for it. He has further established, that it is not merely a primary case that will communicate hydrophobia, but that the dog bitten can convey the disease as well as the animal who is supposed to be primarily and spontaneously affected, a conclusion which corresponds with the experience of Magendie.

With respect to the different effects of contagion on man, it is natural to expect a variety of results, and a difference in the number of persons affected. The bite of the rabid wolf has been stated to be much more liable to be followed by hydrophobia than that of the dog. Of those who have been bitten by rabid wolves it is stated that eleven out of twenty-six become hydrophobic, while of those bitten by mad dogs, the proportion is only one in sixteen. But, in examining this question, the following consideration must be borne in mind. The wolf, a natural enemy to man, generally flies at and tears his face or some uncovered part; while the dog, an animal long accustomed to domestication and subjection, snaps at his legs, which being covered with clothing, the poison is wiped off before his teeth enter the flesh. Hamilton states, that the proportion of persons who get hydrophobia from the bite of dogs varies from one in sixteen to one in twenty-five. You will at once perceive that the ignorance of the fact, that of those bitten but a small proportion become rabid, has misled the public mind on the cure of hydrophobia; as of course, through the influence of some nostrum, many persons are supposed to have escaped a disease which they never would have had.

Now, with respect to the period of incubation, or that in which the poison may, as it were, lie dormant in the system, it would seem that from thirty to forty days is the most usual time. But you are by no means to consider your patient out of danger from his having passed this period safely; for it appears well established, that even after seventeen months have elapsed from the reception of the virus, the disease may appear; and on the other hand, it has occurred within a few days from the time of the injury.

Gentlemen, time will not permit us to enter on the examination of the symptoms of the disease in animals and man. But you can be at no loss for these, as they are described in most of the books; and I cannot help offering my tribute of praise to the author of the article hydrophobia, in the London Cyclopædia of Practical Medicine, Dr. Bardesley. This gentleman has given a most graphic description of the disease, and seems to have taken a truly philosophical view of the subject. I would recommend you all to peruse this article, and also the work of Dr. Hamilton, which is one of the best monographs on hydrophobia in any language.

I shall now make some observations on the pathology and treatment of this disease. I have before told you that pathological anatomy throws little or no light on its nature. Some have objected to its being considered as a new lesion of innervation, from the fact, that alterations of structure are occasionally found. But before we consider the symptoms of hydrophobia, as resulting from structural disease, we must show that the lesion, whatever it may be, is constant, and sufficient to account for the symptoms. Now, this cannot be done with respect to the lesions and symptoms of hydrophobia. Indeed, the case is analogous to that of typhus fever, a disease in which the lesions of structure are neither constant, nor sufficient to explain all the phenomena, and accordingly we find the same principle applicable to both, namely, that as a general rule, he cannot treat the disease by removing this or that local lesion, which should be the case if they were (in the common acceptation of the term) firmly symptomatic affections. Let us pursue this analogy a little farther. In both we may meet structural alterations after death, in typhus, indeed, much more remarkably and frequently than in hydrophobia; but there is every reason to believe that these lesions do not constitute the essence of the disease in either case, but that they are secondary to some previously existing morbid state, with the actual nature of which we are unacquainted. The consideration of such cases leads us to the following principle in pathological medicine.

That in most acute diseases, the cases which we can treat with least difficulty are those in which the signs of organic change preponderate over those of mere functional alteration.

Or, in other words, *that the most acute cases of what we may call general, and also local diseases, the symptoms coexisting with change of structure are easier of removal than symptoms arising without appreciable alteration of organs.*

In hydrophobia we may or may not find lesions of organs. In general we find in some or in all the cavities marks of vascularity, more or less intense or extended, but never sufficient to account for the symptoms, and constantly much less intense and extended than in other cases, where no sign of hydrophobia ever existed. In this disease, then, the existence of organic change is secondary, and its seat and extent accidental.

In illustration of this, I shall call your attention to the results of dissections in two cases, in which the patients died with perfectly similar symptoms. In the first, that which I mentioned to have occurred some time since under Dr. Graves, we could find no trace of morbid appearances in the head, spine, chest, or abdomen, while in the second, that which you have lately witnessed, there was a different result. I shall read you the notes of the dissection, which was performed six hours after death. The pia mater presented a good deal of venous congestion, and the cortical substance was of an unusually dark leaden colour. On making sections of the brain, considerable vascularity was observed, and the substance was soft, and a small quantity of bloody serum existed in the ventricles. This was much more abundant at the base of the brain; cerebellum soft; the spinal marrow, except at the middle and lower part of the dorsal region, was healthy, but in this situation it was remarkably congested. The theca contained a quantity of colourless serum. Both lungs congested, especially at the lower portion of the left. Here the pleura was injected, and contained about two ounces of bloody serum. The pharynx, œsophagus, and stomach, seemed healthy, except a portion of the cardiac extremity, where a ring of vascularity and two patches of ecchymosis existed. No other morbid appearance in the abdomen.

Now, as to treatment.—Nothing more powerfully shows how the successful practice of medicine is based on pathological anatomy, than the failure of treatment in hydrophobia. Here is the case, *par excellence*, in which the anatomist is at fault; and, accordingly, how humiliating is it to contemplate our utter failure at establishing even a principle of treatment. I shall not take up your time in examining the alleged cures of hydrophobia; it is enough to say, that the best informed practitioners more than doubt whether any cure of the true disease has ever been cured under any treatment.

But when we consider the preventive measures the prospects are much more cheering. There is every reason to believe that by full, free, complete, and early excision of the part bitten the disease may be prevented. This operation should never be neglected; and though there are facts to prove that it may be advantageously performed at a considerable period of time after the injury, yet it is obvious that it should be done as early as possible. It would seem that there is actually no case of the occurrence of hydrophobia after the operation of excision, where the supervention of the disease cannot be explained by the following circumstances:—

Firstly, *The operation being too long delayed.*

Secondly, *Its being imperfectly performed, either from the timidity of the operator, or from the difficulty which attends the operation in wounds of particular situations.* You will see in the writings of White and Norris, in the Memoirs of the Medical Society, abundant proof of the utility of early excision. Also in the work of Hamilton, to which I have before alluded.

Norris was consulted by twelve persons bitten by dogs suspected to be mad, and with a single exception he excised the parts. In this case the patient was a boy who was wounded in the face, and he merely applied lunar caustic. This died of the disease, while

the rest escaped. In two of the most remarkable cases, where hydrophobia supervened after the operation of excision, the circumstance admitted of explanation. In one, there were numerous wounds in the hand, and the operation was delayed for four days. In all probability some slight wound had escaped the eye of the surgeon. In the second case the patient had two wounds in the leg, and one in the hand. The operation of excision, followed by the caustic, was performed upon each; but a superficial scratch remained, to which it was thought merely necessary to apply caustic. This individual also died. Now, neither of these cases can be fairly quoted against the operation of excision. Both Dr. Hamilton and the late Mr. Richards, of this city, were of opinion that the operation might be performed advantageously, at any period previous to the appearance of the hydrophobic symptoms; and there are many cases in which late excision seems to have saved life. White relates the instance of a horse, foal, cow, and two pigs who were bitten on the same day by a rabid dog. On the fifth day after the accident the bitten portion was removed from the foal. All the other animals died hydrophobic but the foal. He mentions also the performance of the operation in the cases of eight persons who were bitten. In two the operation was performed on the second day, in four on the third day, and in two some time after. *All did well.* This is a very strong case.

Next in advantage to the excision seems to be the cauterisation of the part, and the establishment of a suppurating surface. Caustic potash, from its solvent effect on animal tissue, has been considered by some as the most preferable of the caustics, as in this way we can go to almost any depth. Next to these means I would place the use of the cupping-glasses; but I quite agree with Dr. Bardesley, that of these different means, the first, or that of excision, is that on which we are to place our chief reliance. It is of the greatest importance, too, to divert the patient's mind, and to adopt every measure that can prevent him from reverting to the thoughts of his dangers.

Gentlemen, before I conclude this lecture, I beg to draw your attention to a most important question, which I believe was first started by my father, who, during the period that he filled the Chair of the Theory and Practice of Medicine in the School of Physic and in the Royal College of Surgeons, was in the habit of advocating the feasibility of doing good in hydrophobia by means directed to the original seat of injury, even after decided symptoms had set in. He holds that if we date the commencement of symptoms from the return of pain to the bitten part, he can produce decided proof of *local treatment* being of use, and probably even a means of saving life. The following most interesting case, which is abstracted from the Memoirs of the Medical Society, vol. iv., is one of those on which my father founds his opinion.

Joseph Junks, a soldier, was bitten on the 1st of March, 1792, by a mastiff-bitch. That the animal was mad was proved by the following circumstance. She bit her master in a quarter of an hour after biting Junks. In about seven weeks this gentleman died of hydrophobia. Three days after receiving the bite Junks applied to the surgeons of the regiment, who cut the flesh of the thumb and finger down to the bone, and kept the parts in suppuration for some time. Salivated him, and gave him the *pulvis antilyssus* for some time. He continued under this care for about six weeks, when he was discharged as well, but at new and full moon the parts, which had been healed, broke out afresh, and healed again in two or three days. He went on this way until the beginning of March, 1793, when about full moon his wounds again broke out; his arms swelled; his eyes appeared very wild, and he was in the utmost anxiety. In the extremity of his distress he applied to a smith, who put some spirit of salt (muriatic acid) into the wounds. He passed the night in great agony, but on the next day he was much better; the wounds soon healed, and two years after, when the account was written, he was perfectly well.

In another case, related by Dr. Guthrie, a boy was bitten by a dog unquestionably mad; as the animal bit two other dogs who died of rabies in a month. The wound was in the foot; it was scarified until it bled freely, and afterwards was dressed with strong mercurial ointment for fourteen days, and a small blister was occasionally applied over the part. The wound was also dressed with the Ormskirk medicine, and thus kept discharging for five weeks. It was then suffered to heal. Ten days afterwards the boy felt shooting pains in the cicatrices, which lasted for several days. One of the cicatrices then began to inflame, when Dr. Guthrie immediately ordered the wounds to be re-opened and dressed with mercurial ointment. During its use the pains subsided, the eruptive appearance ceased, and the boy continued well long after.

These cases might possibly admit of other explanations, but they derive a value from collateral facts. The case, on which my father placed most reliance, as supporting his views, was one which occurred under his own care, and is certainly a very singular one. A young woman, who had been bitten, was attacked with all the symptoms of hydrophobia. She had not slept nor swallowed liquids for thirty-six hours, when the tourniquet was applied to the thigh of the side on which she had been bitten, so as to deaden the nervous communication between the bitten portion and the trunk. This poor girl, very soon after the application of the tourniquet, fell asleep, and on awakening was able to drink; she continued drowsy and drinking, occasionally for some hours; nay, the next morning, so con-

scious was she of the relief which the tourniquet had given her at a time when she had been making fruitless efforts to swallow, that she said to my father, "if that were fastened to my knee I think I could drink." It was examined and found to be loose; it was tightened, and immediately after she could drink again, which she had not done for some time before. It was suggested to my father, that the action of the tourniquet might be explained on the principle of one irritation being discharged by another, an explanation so absurd that it is unnecessary to dwell upon it. In this case my father was anxious to have the operation of amputation of the limb performed, but was prevented by circumstances, to which I need not now allude. The result of the case was of course fatal.

If we seek for analogies in other diseases we shall find many instances where convulsive affections, which have originated from local injury, are ameliorated or cured by treatment directed to the primarily injured portion. The history of tetanus, epilepsy, and trismus dolorificus furnishes us with many instances of this description. And even if we go to other diseases of a general description, we find the importance of local treatment, such for instance, as small-pox, the vaccine, and the disease from the bites of serpents. In all of these cases there is unequivocal evidence, that (to use the language of the day), even after the constitution has become affected, great benefit is to be had from local treatment; nay, in some cases of tetanus and epilepsy a cure has been thus effected. And in the bite of a scorpion, and also in that of the cobra di capello, the best authors agree in insisting on the importance of local treatment, even after the general symptoms have set in.

Now, gentlemen, if we dispassionately consider all these facts we cannot, I think, help inclining strongly to my father's opinion, that the line of distinction, in cases of hydrophobia, between those which are necessarily fatal and those in which there is a chance of life is not defined, and that we ought, in the treament of the confirmed disease, to direct our attention much more to the local treatment than has been hitherto done.

At all events, there seems to be every reason for our advising extirpation of the bitten part, even at very late periods, an opinion which has been that of some of the best authors on the subject.

Gentlemen, I have found it impossible to bring more than the leading points of this subject before you. I have but one remark more to make. The progress of medicine has been to gradually diminish the number of diseases deemed incurable. Do not allow the hitherto universal fatality of this disease to deter you from its investigation, for when we view the rapid advances of medicine we cannot help predicting, that the day will arrive when a mode of cure shall be discovered for hydrophobia.

LECTURES
ON THE
PHYSICAL EDUCATION AND DISEASES OF INFANTS AND CHILDREN,
DELIVERED
BY DR. RYAN,
At the Westminster Dispensary, 1833.

LECTURE III.

Disqualifications for Marriage—Causes of Impotence—Hermaphrodites—Divorce.

III. *Disqualifications for marriage.*—Some diseases are aggravated by marriage, as inveterate scrofula, epilepsy, confirmed phthisis, caries of the vertebræ, aneurism of the heart and large vessels, &c. &c. Rachitis is often transmitted to infants; and this predisposition in the female exposes her to spinal and pelvic deformity; and it too often happens in such cases, that the very moment she hopes to become a mother, she is consigned to the tomb. Fodéré says marriage should be interdicted when the sacro-pubic diameter of the brim of the pelvis is less than four inches; Orfila, when it is less than three inches; but contractions of the outlet or perineal strait are as strong objections. When the deformity is such, that an infant cannot be born through the natural passage, but must be dismembered or extracted by the Cæsarean operation, marriage ought to be interdicted. Theologians as well as physicians hold this opinion. Mania, and other forms of mental imbecility, are impediments to the marriage contract, because it is necessary for this compact that there should be capacity to contract, and the consent of both parties. All physiologists agree that early or premature procreation is objectionable on many accounts, from the imperfect development of the parties, the smallness of the pelvis, which exposes the woman to protracted suffering during parturition, and too often to loss of life. It is well known to practical obstetricians, that females who become mothers at an early age, purchase the honour of maternity at a very dear rate. Such persons are liable to numerous disorders during gestation; the pelvis is unable to support the gravid uterus: it is too small for the passage of the infant; consequently parturition will be laborious and protracted, and finally must be completed by artificial means; while the degree of pressure produced by this process on the important organs or soft parts causes great suffering and danger to the woman, and may be followed by deplorable diseases, or death itself. It is also generally admitted by the most eminent writers, that the present mode of female education is highly injurious to health, predisposes to spinal curvature, and consequently to pelvic deformity, thereby often rendering procreation highly dangerous to the other sex. Writers on spinal diseases have very fully illustrated this position. Again;

great injury is inflicted on the natural development of females, by the custom of tight lacing, the functions of the thoracic and abdominal viscera are impeded, the development of the breasts and nipples is prevented, these parts are considerably absorbed from pressure, the lactiferous ducts are almost obliterated; the nipple will be undeveloped at the end of pregnancy, lactation will be impeded, the natural food of the offspring greatly diminished, while the mother will be affected with inflamed breast or sore nipples. The female is unfit for the purpose of procreation until after the twelfth or fourteenth year, or until menstruation is established; for at an earlier age the sexual organs are undeveloped, there is no venereal desire, and sexual intercourse is painful. Hence the cruelty and barbarity of violating female children of a tender age.

The male is also incapable of performing his part in the mysterious process of procreation until after puberty, and according to the law of this country before the fourteenth year. He is not legally qualified to enter into a matrimonial engagement until the completion of the twenty-first year.

There is no subject which distresses married persons so much as want of offspring, or leads to so much domestic unhappiness, or to infidelity, or the nullification of marriage. It is necessary for the medical practitioner to be fully informed on all the causes which prevent both sexes from accomplishing the act of procreation. All disqualifications for matrimonial union may be divided into two classes:—first, those caused by defect of mental power, and secondly, those caused by defect of sexual organisation. The disqualifications are therefore moral and physical, and are usually expressed by the terms *impotence* and *sterility*. These terms are often used synonymously, though widely different. *Impotence* consists in the incapacity for copulation, or in the impossibility of exercising the venereal act; *sterility* consists in the aptitude of the organs for procreation, without the power of reproduction. Thus a person may be impotent but not sterile, and *vice versâ*. Some writers apply the term impotence to the male, and sterility to the female; but such a distinction is arbitrary and unscientific: the female may be impotent from malformation, and the male sterile from excessive venery, self pollution, and ablation of the testicles. I may observe here, that sterility does not afford a just plea for the nullity of marriage. The manifest causes of impotence, in both sexes, are divided into physical and moral.

Physical, manifest, natural or accidental impotence of the male.—The causes of manifest impotence of the male are absence of the penis or testicles. There must be total loss of the penis, as the slightest penetration into the vagina is sufficient for procreation. (Blundell, Richerand, Sedillot, Manuel de Med. Legale, 1830, and others.) I have known cases in point. The absence of the testicles from the scrotum is no proof of their non-existence in the abdomen; unless the penis be small, the voice puerile, the beard absent, the form delicate, and the whole physical and moral constitution feminine. It is well known that the testicles may not descend into the scrotum, though they be fully developed in the abdomen, and perform their functions perfectly, indeed, according to some writers, much better than in the natural situation. The destruction of one testicle by castration or disease is no impediment to procreation. (Sir A. Cooper, Marc. Dict. des Sc. Méd.) When both testicles are completely diseased, their secretion is injured or destroyed, and sterility is the consequence. Frequent seminal emission, or the sudden secretion of semen during coition, is an effectual bar to reproduction. The secreting power may be very much increased or diminished. The more fluid parts of the spermatic secretion must be absorbed, and the semen must be retained some days to effect procreation. Both parties must be continent and in good health. Both testicles may be removed by castration, yet procreation may be effected, as the vesiculæ seminales may contain a sufficient quantity of semen for one or two prolific emissions, after which the person will be sterile, but not impotent. Baron Boyer was consulted by a man whose testicles were removed in consequence of sarcocele. He knew his wife, and she became pregnant. He feared he was not the father; but M. Boyer assured him he might be, and if so, this would be his last infant. (Sedillot, Manuel de Méd. Leg.) But such persons, and also eunuchs, have erections and emissions, which consist of the prostatic fluid, the mucus of the seminal vesicles and urethra.

The ureters may open above the pubes in monsters (Duncan and others); and, in such cases, there are other malformations, and the individual is sterile. Mahon, and many other medical jurists, contended that individuals were impotent who were affected with hypospadias; that is, when the urethra opens through any part of its course from its orifice to the scrotum. It is now proved that if the opening be so placed that it may enter the vagina, impregnation will follow. Frank relates a case in point. He knew a father so affected transmit it to his son, and even to three generations. Another individual had three sons. (Bull. de la Faculté de Medecine, 1810.) Morgagni, Petit-Radel, Sabatier, Gauthier, and Richerand, have observed analogous facts (Dict. de Sc. Méd. art. *Hypospadias*); and Blundell.

Sometimes the urethra opens along the dorsum penis; this constitutes epispadias. It is evident that the conclusion in the preceding case applies to this. The urethra may end in a cul de sac. (Goupil, Cloquet, and others.)

Dimensions of the penis, extraordinary thickness and length, are considered by some writers as causes of impotence. Fodéré is of opinion that the respective organs may be so disproportionate, as never to be adapted to

each other; and the physical inconveniences are such as to expose the female to great injury and danger to her health. A case lately occurred in this city, the particulars of which were, that though the female was of ordinary stature and well formed, marriage could not be consummated. The case was mentioned to me by a medical friend, but he could not state whether any malformation or disease existed. It must be admitted, however, says Orfila, that thickness of the penis, which excites great pain in some women, procures voluptuous sensations in others, and that the vagina is capable of great dilatation, which may be effected by gentle and gradual efforts, and reduced to a state capable of receiving the virile member. Though extreme length of the penis, he continues, may produce contusion of the os and cervix uteri, it cannot be deemed a just cause of impotence, because, by certain precautions, this danger may be avoided, unless there is great difference between the age of the parties. Diminutiveness or shortness of the penis is no proof of impotence, and the slightest penetration and emission are sufficient for impregnation. I have known several cases of this description. Obliquity, tortuosity, or bifurcation of the penis, bad stricture of the urethra, phymosis, paraphymosis, warts, chordee, chancres, or excessive length of the frœnum, cannot be considered absolute causes of impotence, as they can be remedied by surgical operations. Large scrotal herniæ cause recession of the penis, and may render coition impracticable; but in some cases relief may be afforded. The same observations apply to large hydrocele. Sarcocele or scirrhus of the testicle does not cause absolute impotence, as it may be removed by operation; and one testicle remaining is sufficient for procreation. The testicles may disappear by disease (R. Hamilton, Larrey, Fodéré), or by the abuse of iodine. But Dr. Hood, of Brighton, has published a case in the *Medical and Surgical Journal*, in which he reduced the size of an enlarged testis with iodine, both internally and externally, while the other, which was flabby and atrophied, enlarged and regained its functions.—(Vol. i. 1832, p. 403.) M. Lugol has not mentioned that absorption of testes occurred among his numerous patients, and this may be accounted for by his using chemical combinations of iodine. Three conditions are necessary on the part of the male for copulation—*erectio et intromissio penis, cum seminis emissione.* Impotence in men depends on defect of some one or more of these conditions; erection, intromission, and ejaculation of the spermatic fluid. The causes of impotence are more commonly observed in man than in the other sex; and this is easily accounted for, by the greater part the male has to perform in nuptial congress. This is evident from the phenomena which give the virile member the form and disposition proper for erection, the introduction of the organ, and the ejaculation of the semen, effected by a violent and complicated action, which requires a concurrence of many indispensable conditions, as the organs not only contract spasmodically to effect the expulsion of the male fluid, but all the body participates in this convulsion at the moment of emission, as if nature at this instant forgot every other function. The causes of impotence in man arise from two sources, from malformation of the genitals, or from want of action in them; but in females, impotence can only depend on malformation, natural or acquired.

The causes of want of erection may be divided into physical and moral. The physical causes depend on defects of the body, as paralysis of the penis, deformity of the spine *, frigid and apathetic temperament. The moral causes are such as act powerfully on the imagination, and suddenly produce an atony of the genitals, or induce an inactivity in organs properly developed. "The genital organs," says M. Virey, "offer two states during life, in the young and old, which are the frozen zones of existence; the intermediate state is the torrid zone of life. The infant has nothing to give, the old has lost all." Immaturity of age and senescence are often causes of want of erection. This doctrine, though generally correct, admits of exceptions, as children have been precociously developed even before the fourth year, examples of which have been cited; and this author described a boy, aged seven years, a native of the department of Lot, who was as fully developed as an adult, and who made the most furious comic attacks on his female acquaintance, and absolutely deprived one of them of that which she could never regain. Among the causes of want of erection we must reckon a frigid or apathetic constitution, a total insensibility to sexual desire, and this is said to be a profound lymphatic temperament. Descourlitz describes persons of this temperament in these words:—"The hair is white, fair, and thin, no beard, countenance pale, flesh soft and without hair, voice clear, sharp, and piercing; the eyes sorrowful and dull, the form round, the shoulders straight, perspiration acid, testicles small, withered, pendulous, and soft, the spermatic cords small, the scrotum flaccid, the glands of the testicles insensible, no capillary growth on the pubes, a moral apathy, pusillanimity and fear, on the least occasion, are symptoms of anaphrodisia, or impotence, or sterility; and any one having the majority of these signs is incapable of copulation or generation." (Propositions sur l'Anaphrodisie.)

A habitude of chastity is another opponent to erection, such as characterised the ancient

* Dr. Harrison has lately published some cases of this kind, which were cured by the removal of the spinal disease. (Essay on the Powerful Influence of the Spinal Nerves on the Sexual Organs, 1831.)

fathers of the desert, and in those who, by fasting and other forms of church discipline, extinguish those feelings implanted by nature, but, in their opinion, contrary to that purity which should distinguish those who have made vows of chastity. The sexual organs of such persons decay, like all other organs whose functions are not exerted. Long continued debauchery, whether with women or by masturbation, will cause impotence. "The impotence," says Pinel, "caused by the latter excess, reduces youth to the nullity of age, and is too often incurable." Long watching, great fatigue, mental or corporal, want of nutriment, excessive evacuations, sanguineous or otherwise, of blood, bile, fæces, saliva, menses, scorbutus, cachexia, marasmus, peripneumony, hydrothorax, anasarca, malignant fevers, diseases of the brain and spinal marrow, whether from external injuries or poisons, and numerous other diseases, are temporary causes of impotence. Sexual desire is suppressed by acute diseases, and returns after convalescence. Zacchias and Beck relate numerous cases in proof of this position. We see this further illustrated at the convalescence after fevers, when erection is generally observed. Some diseases stimulate the generative organs, as calculus in the kidneys or bladder, stricture, disease of the prostate gland, gout, rheumatism, consumption, piles, mania, itch, leprosy, and other cutaneous affections. Others may diminish or suppress venereal desire for twenty-four years, and then the functions may be restored. (Zacchias.)

Excessive venery is a frequent cause of want of erection and impotence. I have been consulted in several cases of this description. This is a frequent cause of want of offspring in young married persons.

The abuses of narcotics, saline refrigerants, acids, acid fruits, iodine, camphor, and nitre are causes of impotence. Of all causes cold is the most powerful. Thus, in the Polar regions, there is neither love nor jealousy.

Moral Causes.—There are no facts which so evidently prove the influence of the moral over the physical state of man as the phenomena of erection. A lascivious idea will arise in the midst of our gravest meditations; the virile organ will answer its appeal, and will become erected, and fit for the functions which nature has confided to it; but another thought arising, will instantaneously extinguish, with the most frigid indifference, all amorous transport.

This statement is well exemplified by the effects of the passions. Chagrin, inquietude, and debilitating passions, prostrate the whole economy; jealousy and profound meditation impede the faculty of procreation. Thus, at the very moment when enjoyment is about to be commenced, too eager desire, the excess of love, the fear of not being loved, timidity, respect, doubt of capability, the fear of being surprised, the shame of excessive modesty on being in the presence of witnesses, antipathy, the sudden knowledge of some physical defect in the female, aversion from filth, odour, and pre-occupations of the mind, are sufficient to oppose erection, and to abate it most suddenly. But who can enumerate all the moral causes capable of impeding or destroying erection? A sigh, doubtfully interpreted, a recollection, an equivocal word, are sufficient to destroy the illusion, and congeal the most violent passion. A newly married man has become suddenly impotent, on discovering his bride to be without a hymen, though the absence of this membrane is no proof of unchastity; and a debauchee has as suddenly become impotent, on finding the membrane perfect.—(Dict. de Sc. Médicales.) It is thus with a literary man, a philosopher, or those who have a ruling idea, which excites the brain more than the sexual organs. The fear of being impotent is the most frequent and powerful cause of this condition. Thus the cases related by the illustrious Hunter, and the absurd impressions of former times, as to the influence of his Satanic majesty and his colleagues, the witches. Men supposed there was no physical power when the moral state had destroyed their desires, and they were impotent as long as they supposed themselves so. Such is the power of the moral over the physical state of man. Many impotent persons of this class were cured by Hunter; and many are annually cured by quieting the imagination and strengthening the constitution. I have succeeded in numerous instances. In remote ages men allowed the illusions of the imagination to have a most extraordinary power over their minds and bodies. This was most remarkable in the subject before us.

Thus, we cannot easily comprehend how the power of rue, or St. John's wort, could prevent a man, properly developed, from performing his nuptial duties on his bridal night; or how the pronunciation of a few obscure and unintelligible words, could have a similar effect. These words were to be written on paper with the blood of a bat, sewed up with a needle which was used in making the shrouds of the dead, and then the charm was to be tied round the neck of the new married man (Venette; also Les Secrets du Petit Albert), or merely pronounced. To cure this enchantment, the church prescribed prayers, the doctors physic, and the law severe punishment. Bacon describes it in his Natural History as prevalent in Germany and France; in the latter country it was designated *nouer l'aguilette*, or tying the point. Mr. Hunter ordered timid bridegrooms, and those whose impotence was imaginary, to refrain from sexual intercourse for a week, no matter what might be their desires, and then to try their powers. They usually took some mild form of medicine, and a few drops of tincture of opium each night, during the period of preparation. This plan of treatment was most judicious, and I have tried it in several cases with suc-

cess. I have also given quinine to improve the appetite and strength. The accumulation of the seminal fluid for a week excites strong desire, while the opium acting on the brain changes the train of ideas, and prevents nocturnal emission, so that at the end of the prescribed period there is no doubt of success. This cure was effectual, and many of his patients succeeded sufficiently to remove all unfavourable impressions of impotence ever afterwards.

Impotence, natural, manifest, or accidental, in woman.—It has been long held, I think erroneously, that the generative organs of the human female are more complicated than those of the male, and therefore that the causes of impotence are more numerous and less apparent than in the other sex. If we examine the genital organs of both sexes anatomically, we shall find them equally complicated, and possessing an equal adaptation or arrangement of parts, as well as an identity of structure. Thus we find the structure of the penis very similar to that of the genital fissure and vagina, the double fold of prepuce, the cavernous structure, its performance of a part of the genito-urinary functions, the openings of the vesiculæ seminales and uterine tubes, the vesiculæ seminales and uterus, the testes and ovaries, the spermatic cords and the uterine tubes. We also find the diseases of one sex as numerous as those of the other; and those who doubt the assertion, need only refer to the works of Chopart, Titley, and others, on diseases of the genito-urinary organs of the male, for ample proof of my position. I need scarcely observe, that diseases of the vasa deferentia, vesiculæ seminales, the pressure of tumours, hydatids, &c. on these parts, diseases of the prostate gland, urinary calculi, diseases of the urethra, fistulæ in perineo, diseases of the bladder, penis, and scrotum, will be found as numerous as those of the generative system of the other sex. Besides, it would be inconsistent with the wisdom and uniformity displayed in all the works of Providence that one sex should have more to do in the perpetuation of the species than the other.

The causes of impotence in woman are malformations or diseases of the sexual organs. Some of these causes are apparent, others obscure. The apparent causes are, obliteration of the external sexual organs, both soft and hard, absence of the vagina and uterus, and great deformity of the pelvis, with numerous diseases of the external and internal genitals. The vagina and uterus have been found to consist of a dense, fleshy substance, (Morgagni, Mott, Fodéré,) and the vagina has been partially closed by such substance. (Parè, Ruysch, Fabricius, Physick, Fodéré.) It may be absent (Haller, Vicq. d'Azyr, Journ. des Savans, Boyer, Caillot, and Willaume,) unusually small, impervious from adhesion, tumours, or a frœnum passing across above the hymen, or it may be filled with a fleshy growth. If too narrow, it may be dilated with a bougie or a tent sponge, and when unattended to must be divided by incision, to admit the passage of the infant. The orifice may cohere after conception. There is sometimes a great congenital confusion of parts, so much so, that it would be tedious to describe them. In cases of extreme narrowness, impregnation may take place, and the canal be gradually dilated during parturition. I have seen four cases of cohesion of the labia externa, at the age of puberty, so complete, that only a small probe could be introduced at the superior commissure. The vaginal canal may be totally or partially obliterated, and in such cases an operation is impracticable, and impotence absolute. The vagina has opened into the bladder (Sue), rectum, anterior parietes of the abdomen, and pregnancy has occurred in the two latter cases. Morgagni attests that of the abdomen, lib. v. epist. 67; and the other is given in the Annales de Méd. de Montpellier, which led the celebrated Louis to propose the following question to the casuists:—"An uxore sic disposita uti fas vel non, judicent theologi morales?" Barbaut cites two examples of pregnancy of this kind. (Dict. des Sc. Méd., art. Impuissance.) Orfila contends such malformation is a cause of impotence; for though coition is not physically impossible, it is contrary to the laws of morals and of nature. The royal court of Treves annulled a marriage in such a case. Dupuytren has lately described a case in which an infant passed through the rectum, and without laceration of the sphincter ani. In cases of vesico-vaginal, recto-vaginal fistulæ, and amplification of the vagina from laceration of the perineum, inflammation and ulceration may occur and impede sexual intercourse; but such cases could not warrant a divorce, when they occur after marriage. Excessive straitness or partial occlusion of the vagina, are not impediments to procreation, as fecundation may occur, if the spermatic fluid be applied inside the labia, as already mentioned. Besides, fecundation has happened, and the hymen perfect. (Ruysch, Parè, Smellie, Hildanus, Mauriceau, Boudelocque, Nægele, Nysten, Journ. de Méd. de Corvisart, and Leroux.) Prolapsus, and some forms of ulceration of the vagina, are only temporary causes of impotence. Cauliflower tumours of the clitoris or nymphæ may be temporary causes of impotence, as also tumours in the vagina. (Burns, Trans. Dublin College of Phys. 1824, vol. iv.; Edinburgh Med. and Surg. Journ., 1805.) Leucorrhœa is one of the most common causes of sterility.

The uterus may be absent. (Columbus, Schlegel, Morgagni, Meyer, Renauldin, Hamilton, Bousquet, Theden, Engel, Lieutaud, Caillot, Ford, and Breschet.) I might quote numerous writers who describe the cavity of the uterus divided by a septum, but it is not stated whether or not procreation was impeded. Many authors have also described

partial or total obliteration of the uterine cavity, among whom are Bichat, Lallement, Segard, Gardien, &c. The uterus may be double, that is, there may be two uteri. (Haller, Purcell, Med. Facts, vol. iii; Mem. Med. Science, vol. iv; Lond. Med. Journ., 1782, vol. iii; Dict. des Sc. Med.; Medical Transactions, vol vi; Dugès, Journal de Progés, vol. xxii.) A vicious direction of the os and cervix uteri, or complete occlusion of the former, are irremedial causes of sterility. The whole of the causes of impotence and sterility in females may be arranged under three classes:—1. those depending on the organs which receive the male fluid, namely, the genital fissure, the vagina, and uterus; 2. malformation, or diseases of the organs that transmit it to the ovaries, and reconvey the embryo to the uterus, and these are the fallopian or uterine tubes; 3. the malformation, or diseases of the ovaries, or organs which supply the germ for fecundation. Inflammation, ulceration, scirrhus, cancer, ossification, calcareous deposit, or tumours in any of these organs, may be the cause of sterility. In fact, any disease of the female genitals, attended with much constitutional disturbance, may be held a temporary cause of sterility. Tumours of various kinds, callosities, cicatrices, adhesions, from disease or mechanical violence, displacement of the uterus, prolapsus, procidentia, retroversion, antiversion, lateral obliquity, and the various disorganisations incident to muscular, serous, and mucous tissues, when present in the female organs, are causes of sterility. In the London Medical and Surgical Journal, 1830, vol. iv., is an account of two singular cases of procidentia uteri; in both impregnation was effected through the natural orifice, though permanently fixed for several inches without the genital fissure for years. I have also published cases of dysmenorrhœa, in which pregnancy occurred. In the disease called irritable uterus, so well described by Gooch and others, a cure may be effected. In absence of the ovaries and uterine tubes there can be no conception; or in dropsy, or enlargement of both ovaries when their whole tissue is diseased; or in occlusion or adhesion of the tubes to the uterus or adjoining parts *. There are some cases of constitutional sterility which are inexplicable; for example, those in which a woman has had no family for years, and at length becomes a mother.

* Mr. Travers exhibited both ovaries very much enlarged and, according to the statement made to me by a friend who saw them, diseased in every part, though they were removed from the body of a lady, who died a few days after delivery. I should suppose there was a portion of one ovary, or an ovum, in a healthy condition at the time of conception, and the disease advanced during pregnancy, in consequence of the determination of blood to the pelvic organs.

The principal moral causes of impotence are hatred, disgust, fear, timidity, an excessive ardour of desire, divers ramblings of the imagination; in a word, passion strongly excited, that is to say, the cerebral action so strong as to diminish that of the genital organs, which require for coition great exaltation. Fodéré is of opinion that complaisance, tranquillity, silence, and secrecy are necessary for prolific coition; it is arrested, as if by enchantment, by noise, dread, fear, publicity, jealousy, contempt, repugnance, slovenliness, by too much respect, and by every thing that can excite or depress the imagination.

Many of the causes of impotence in both sexes may be removed, but many are beyond the reach of art. It has been long maintained that the powers of the mind have great influence in promoting and impeding the process of procreation. I cannot describe the treatment of the various diseases that cause impotence at present, but you will find it in my work on Population, Divorce, and Disqualifications for Marriage.

From the preceding statements we may, I think, deduce the following general principles:

1. To declare either sex impotent, it is necessary that certain physical causes be permanent, malformations or accidental lesions, and be evident to our senses, which art cannot remedy, and which prevent the faculty of exciting a fecundating coition.

2. These causes, when rigorously examined, are few in number.

3. The moral causes of impotence ought not to be taken into consideration, as they would serve as an excuse for an individual accused of impotence.

4. That if there is the slightest penetration into the vagina, it is sufficient to excite in the other sex a degree of erethysm necessary for fecundation; or if the spermatic fluid is applied at the entrance of the vagina, virile impotence cannot be admitted.

In this country the medical jurist is seldom required to decide questions of impotence or sterility in our courts of justice; but every medical practitioner may be consulted in private practice, either before or after matrimonial engagements. He may be the cause of great domestic trouble, and may embitter the life of male or female. He should be exceedingly cautious in fixing the stigma of impotence or sterility on either party. The legitimacy of children may be contested on a plea of impotence, and such a plea may be offered by a man accused of a rape. It is therefore evident that a proper knowledge of the subject is necessary to the medical practitioner.

Ambiguity of Sex—Androgyne—Hermaphrodites.—There are various malformations of the genitals in both sexes, but there is no example of one individual possessing the perfect organs of both. Two cases have been described before the Academy of Medicine in Paris about a month ago, in which the male had a uterus, ovaries, and tubes, but very imperfectly formed.

See *London Medical and Surgical Journal*, 1833, vol. iii. p 702, No. 74. Again, the organs may not resemble those of either male or female. There is no truth in the statement, that hermaphrodites have married and propagated; the obstetrician is aware of the physical impossibility of a full-grown infant passing through the male pelvis. It is evident that hermaphrodites must be impotent and sterile. Nevertheless the ancient physicians were of opinion that such persons might propagate. Even a canonist went so far as to maintain one individual could propagate within himself or herself, "tanquam mas generare ex alio, et tanquam fœmina generare in se ipsa." There is no case on record of a perfect hermaphrodite, and no truth whatever in the assertion that such class of beings can propagate the species. I can see no difficulty in supposing that persons of both sexes, with malformations of the genital organs, may marry, when I recollect the curious and well-attested case of a female, who dressed in a male attire, and assumed the name of James Allen, married another female, and lived as a husband for several years without detection. This case happened in London, in 1829, and was discovered when Allen died; and on dissection was found to be a well-formed female. Also the case of Marie Marguerite, who was born in 1792, and considered a female till 1813, when her real sex was determined, as mentioned by the French medical jurists. The case of the horrible individual who called himself Lavinia Edwards, who dressed as a woman, and whose real sex was discovered after death, is a recent example of this description.

Rochefort relates in his dictionary a case of a Scotch servant, an hermaphrodite, who was condemned to be buried alive, for having impregnated the master's daughter, and that the French parliament permitted persons of this class to marry, whether they were men or women, but never to deviate from the functions of the sex which they had adopted.

Skenchius asserted he knew a reputed hermaphrodite, married to a man, and who had sons and daughters, and yet that this person impregnated servant maids.

Blackstone says, "a monster having deformity in any part of its body, yet if it hath human shape, may inherit; and every heir is male, or female, or hermaphrodite; that is, both male and female, and shall be heir according to that kind of sex which doth prevail, and accordingly it ought to be baptized. The same is observed in cases concerning tenants by courtesy."

Divorce.—Marriage cannot be legally contracted in these countries without the full and free consent of the parties, and hence medical men may be called on to decide whether one of the parties was incompetent to form the compact from mental imbecility, inebriation, or narcoticism. Adultery, of either party, or personal violence, is a sufficient cause for divorce in this country. The former can be proved by the temporary impotence of the husband at the time of conception, or by the birth of an infant in his absence, (See Legitimacy in my work on Forensic Medicine); or by the existence of syphilis in either party. By the law of this empire the parties may marry again; but in all Catholic countries there can be no second marriage, during the life of either party. A divorce is granted whenever it is proved that corporal imbecility existed before marriage. The contract is declared null and void, *ab initio*. Imbecility after marriage is not a sufficient cause, because there was no fraud in the original contract (Blackstone); and to provide for this case, the ritual prescribes, in the marriage ceremony, by compelling both parties to swear that they take each other for better for worse, in sickness and in health, until death doth them part.

OBSERVATIONS ON THE PREVENTION OF SECONDARY HÆMORRHAGE AFTER OPERATIONS FOR ANEURISM.

BY SAMUEL WALKER,

Licentiate of the Royal College of Surgeons in Ireland, and Surgeon to the Forkhill Dispensary, &c.

THE records of surgery furnish us with many varieties in the size, shape, and mode of applying ligatures on the arterial tube, for the relief of aneurism, each well calculated, in the opinion of its advocates, for the avoidance of secondary hæmorrhage, an evil of much more frequent occurrence in this disease, than after amputation. As it would be presumption in me to enumerate objections to these methods, I shall only endeavour to describe the following experiments, and put forward those reasons, however fallacious, which appear to me to render such a method of tying an artery less liable to the fatality above alluded to than those usually adopted.

The effect of a ligature on an artery, unless applied very near a collateral branch, is to form a conical clot, and between the base of the cone and the external coat, an effusion of lymph. This clot is merely held in suspension at its base, and has no support at its apex to prevent the impetus of the column of blood from jerking it

against the external coat; thereby stimulating the absorbents to take up the lymph, causing contusion of this coat against the ligature, which is, to a certain extent, a fixed point, and a continuance of inflammation from irritation; consequently inducing ulceration and secondary hæmorrhage to set in possibly sooner than they otherwise should. Could we form an additional bond of union between the clot and the periphery of the tube, it would thereby be prevented from thus pressing, *per saltum*, the external coat against the ligature, and the consequences above enumerated be obviated. This I would propose to effect by applying a temporary ligature to the artery previous to the permanent one, and a few lines nearer the heart, varying the distance according to the calibre of the vessel. The effusion of lymph caused by thus dividing the internal and middle coats would, I apprehend, after the removal of the first ligature, adhere to the after-formed clot, and be the required bond of union between it and the coats of the artery. Since the existence of the clot sometimes prevents the effusion of blood after the destruction of the extremity of the tied artery by ulceration, it is manifest how desirable such a bond of union must be, and how material an additional effusion of lymph, since the clot is sometimes so slender as to permit the escape of blood by its sides, after the resistance of the ligature is destroyed. By first affixing the ligature nearest the heart, a recurrence of the painful and peculiar feelings of the patient consequent on arterial constriction will be avoided.

To prevent, also, the possibility of any unnecessary disturbance or injury to the artery by the unskilful removal of a knot, the primary ligature should not, I conceive, be tied, but steadily held extended by an assistant, until the other be secured, and then suffered to be gradually relaxed by the expansive force of the circulation.

Mr. Hodgson, in remarking upon the method by which Dr. Jones has proposed to effect the obliteration of the artery, merely by the application and removal of one or more ligatures, makes the following remarks: "Most patients date the commencement of this disease in the extremities from some violent exertion, by which the internal and middle coats, having lost their natural elasticity by disease, are suddenly torn asunder. Is it not probable, then, if the internal and middle coats be cut through by a ligature, and the wound not repaired by the adhesive inflammation, that the impulse of the circulation may distend the external coat, and the formation of an aneurism be the consequence? If a plug be formed in the artery during the residence of the ligature upon it, or in consequence of the effusion of lymph from the cut surfaces, it may prevent these occurrences, but the formation of a plug is an event which cannot be depended upon, and which does not take place in all cases when the ligature is suffered to remain upon the artery."—*Hodgson, page* 233.

Similar objections may be made to the above theory, but would lose much of their weight were it considered that a plug or clot, which it is conceded would prevent the formation of an aneurismal sac, would most likely be formed when we had the two causes of its formation mentioned by Mr. H., namely, "the residence of a ligature upon the artery, and the effusion of lymph from the cut surfaces." Nor is it in my humble opinion improbable, from the concurrence of these two causes of the formation of a clot, that it should take place even in the neighbourhood of a collateral branch of the artery. The ligatures I would apply in the following manner. Inserting the aneurism needle armed with the two ligatures, thereby rendering a second insertion of it unnecessary, I would bring the internal end of the primary ligature across the anterior surface of the artery, and pass it through a hole made by a pin in its external portion, and then draw the point of insertion, still posteriorly situated, from the

external to the internal side of the vessel, and looped in it the internal end; then withdrawing it from the hole, I would have the tube completely encircled by the ligature, and would, on its compression, ensure a more equal division of the coats of the artery, the point of junction being posteriorly placed. Having intrusted the regular extension of this ligature to an assistant, I would proceed to affix the other. Should an operator deem it hazardous to have the primary ligature held by the hands until the ultimate one be applied, lest, by too great a distension of it, the outer coat of the artery be injured, he may remove it before the other will be tied. The disagreeable sensation which the patient must experience from a second shock is a matter of much lighter consideration. This last inconvenience may, however, be obviated by pressure on the artery above the ligature. The experiment above imperfectly described, does not rest altogether in theory. Dr. Houston, curator to the museum of the Royal College of Surgeons in Ireland, was kind enough, at my suggestion, to try it on the femoral artery of a dog; on the fourth day the artery exhibited the appearances which I had anticipated. It was slit with a pair of scissors, which disturbed the union to a certain extent; sufficient, however, remained to induce me to submit the theory, and the result of the experiment, to judgment.

A CASE OF PROTRACTED PREGNANCY.

BY POWELL CHARLES BLACKETT,
22, *Green-street, Grosvenor-square.*

S. C., ætat. 30, of a delicate and irritable habit, in October, 1820, miscarried, and in the beginning of Dec. 1820 was attacked with retchings and sickness in the mornings, and was occasionally seized with vertigo, drowsiness, complaining of pain and tension in her breasts, which she looked upon as the first indications of pregnancy.

This patient, during her four former pregnancies, had a egular monthly discharge, similar in appearance to her menses, but from the time of her miscarriage till the above-mentioned symptoms, no menstruation made its appearance; about two weeks after the symptoms of retching, &c., mentioned above, she had her usual discharge, and this continued monthly until she was confined. This patient continued as usual, in every respect, as in her former pregnancies, and of course expected to be confined in the middle of September, 1821. Yet during which time she never felt the motion of the child. Being obliged to leave town the beginning of September, I introduced Dr. Henry Davis to her, and requested him to attend her for me. I returned the 22nd of September, and found her still in the same state, excepting that she complained of a violent pain of the right side, exactly in the region of the liver. I ordered fomentations, &c., and applied a liniment of camphor and opium, which appeared to relieve her. This pain, about the 5th of October, returned with increased violence. I then examined the abdomen, and perceived that the parietes were very much on the stretch, and that the centre, that is to say, taking the navel as such, was surrounded by a black circle, which it would have required a common dinner plate to cover. I applied a blister to the right hypochondriac region, which took effect, and she informed me that, during the night, for the first time, she felt the fœtus move. I applied my hand to the abdomen and could plainly feel the motions of the child. My patient at this time was very large. The blister relieved the pain of the side and discharged very much for several days. I desired her to regulate her bowels as usual; she continued growing larger and larger, until her stays were obliged to be laid aside; she was then compelled to support herself with flannel bandages, until it took three breadths and a half of flannel to go round her, each breadth measuring three quarters of a yard; her abdomen when sit-

ting, reached the extremities of her knees, when standing upright, half way down her thighs. This misery was continued until the 23rd of December, 1821, when she was delivered by me without the least difficulty, at half-past twelve o'clock A. M. of two male infants, whose placentæ were separate, and each child weighing about eight pounds.

This patient is still alive, and is ready to give testimony to this narrative.

24th June, 1833.

THE

London Medical & Surgical Journal

Saturday, July 7, 1833.

COMMENCEMENT OF MEDICAL REFORM.

THE work has begun—the House of Commons has required from that glorious body of guardians of medical science, the Royal College of Physicians, a return, which is by no means palatable to it, but the draught, which is quite as nauseous as any prescribed by one of the Fellows, may be very uncomfortable to swallow, but will prove of infinite service to the general health. It is but the first dose administered, but it will be followed up by a course of alterative medicine, which will effect a marvellous change in the system. A copy has been ordered to be returned

"Of the regulations, or by-laws, under which Graduates in physic have been admitted as Fellows of the Royal College of Physicians of London since the year 1771.

"Account of the number of the persons who have been admitted as Fellows of the Royal College of Physicians in each year since 1771, distinguishing the number admitted under each by-law, and also the number rejected.

"Of the number of persons who have been admitted as Licentiates of the Royal College of Physicians, from 1st January, 1823, to 31st of December, 1832.

"Of the money which has been received by the Royal College of Physicians from persons admitted as Licentiates, from 1st January, 1823, to 31st December, 1832, and of the manner in which it has been appropriated."

These are judicious inquiries, they must lead to that great and important practical reform, which we have so long pointed out as indispensable, and our voice, with that of the profession, has at length found an echo in the public, and must be listened to by the House of Commons, who at last will act for the general good.

If legislative enactments are not made this session, of which we confess we entertain little hope, it is most certain that the next meeting of parliament will effect all that we have so long, so ardently, and so justly demanded. In the mean time, it is not too late, and again, though we have often impressed it on the Royal College, must point out how much better for the profession, for the community, and for itself will it be if the reform proceed from the President and Fellows. They have now an opportunity which can never recur, of obtaining for themselves the respect and the esteem, which the wickedness of their predecessors and their own obstinacy or thoughtlessness has caused them to forfeit. We have given to them a plan by which the College of Phy-

sicians of England may deserve the rank it should hold as a scientific body, and we call upon them before it is too late to follow it, and thus secure, whilst they have the opportunity, privileges, powers, immunities, which they will not enjoy, if their monopolies remain to be overthrown by the determined hand of reformers. They ought to confer the rank of doctor of medicine upon all those who give proof of their education, regardless of whatever school they come from; the only point which should be considered is, what course of education should be followed to obtain the rank. Why a country physician should not be called on to be a Member of the College we cannot understand, for assuredly life is quite as valuable whether it is carried on in Exeter or within six miles of London. Yet any man may practice as a physician in Exeter, who chooses to do so, no one having the power to prevent him, and nobody daring to ask how his degree was obtained. Every man residing in London ought to be a Fellow, as he should be called on to support the expenses of the College, whilst those who live in the country might be Licentiates, and of course pay less for their licence.

The College shoul d have no powr of making by-laws to govern without the assent of the whole body, and without having submitted those by-laws to the judges, as is done by the Royal College of Surgeons. The benefits that would accrue to the community, by a well-governed body of physicians, are inestimable; the miseries that occur under the present system are tremendous. Quackery, villainy, and murder are engendered instead of being punished, and the life of no man is safe whilst the responsible guardians of it are occupied in assuming aristocratical privileges, and lording it with insolence over the really well educated part of the profession.

We have heard, dare we believe it, that a Fellow of the Royal College of Physicians being lately asked by a respectable tradesman, a patient, whether he might take Morison's Pills, the answer was, Certainly, they are as good purgative pills as any other. Is it to be believed that any man would thus sanction a medicine, of whose composition he was perfectly ignorant, when that man was one of the guardians against quackery?

WISDOM OF LEGISLATORS — PRESCRIPTIONS—LATIN LANGUAGE.

THE 72nd Number of our Journal contained some of the sagacious remarks of those gentlemen, who love to talk in the House of Commons, and who being perfectly ignorant on the subjects on which they are called on to legislate, hold themselves up to public ridicule and contempt. Men who have never for a single instant thought upon medical subjects, actually rise up to instruct their fellow members; and though, at every period of that issues from their ill-tuned voices, they betray their folly and their flippancy, are considered the Sir Oracles, whose dicta are to be the future law of the land. The newspapers state, but we confessedly do not believe it, that Mr. M. Hill said, "he hoped that physicians would condescend to give their

prescriptions in plain English." We do not know whether this is the gentlemen who offers himself for Recorder for London, but should it be the same, we hope, if he expects the votes of any sensible men, that he has considered his own department more attentively than he has that upon which he thought it necessary to broach his foolish opinion. He said lawyers had given up the pedantry of writing Latin, this may be true, but the jargon they write in the English language is quite as unintelligible to men of plain sense as the terms in which, for the welfare of mankind, the physicians convey their instructions, not to their patients, but to those who are to prepare some of the most powerful means of destroying life, although the art has rendered them serviceable to the diseases of man. Who, that has ever looked upon one of the many rolled pieces of parchment, on which is written a vast farrago of words, by which a simple conveyance is made of one piece of property from one individual to another, without wishing the law had more simplicity, and was less incumbered with those technicalities which seem at variance with common sense. Still no physician has ever ventured to find fault publicly with it, because he feels he is ignorant of the subject, and that it would be a piece of folly to attempt to depreciate that, which those who have studied the subject find absolutely necessary. It is true he cannot see its utility, but he ought to devote time, attention, and reflection to all the points upon which it bears, before he pronounces its condemnation. If this lawyer, or whatever he may be, had inquired into the subject, he would have found that many greater minds than his had already well weighed the matter, had considered it amply, and had come to the conclusion, in which the good sense of the public and of the profession had the utmost reliance, that it is infinitely better for the education of medical men, that they should read, study, and write the Latin language, and for the safety of the public, that it should have its prescriptions written in a language which was not generally understood.

How well, among many others, has Dr. Gregory stated his opinions; we will not quote, however, any but the following sensible remarks:—

"Curiosity in a patient or his friends to know the nature of the medicine prescribed for him is natural, and therefore not blamable; yet this is a curiosity which it is often very improper to gratify. There is a natural propensity in mankind to admire what is covered with the veil of obscurity, and to undervalue whatever is fully and clearly explained to them. A firm belief in the effects of a medicine depends more on the imagination, than on a rational conviction impressed on the understanding; and the imagination is never warmed by any object which is distinctly perceived, nor by any truth obvious to common sense. Few people can be persuaded that a poultice of bread and milk is in many cases as efficacious as one compounded of half a dozen ingredients, to whose names they are strangers; or that a glass of wine is, in most cases where a cordial is wanted, one of the best that can be administered. This want of faith in the effects of simple known remedies, must of necessity occasion a disregard to the prescription, as well as create a low opinion of the physician. Besides, where a patient is made acquainted with the nature of every medicine that is ordered for him, the physician is interrupted in his proceedings by many frivolous difficulties, not to be removed to the satisfaction of one ignorant of medicine. The consequence of this may be to embarrass the physician, and render him irresolute in his practice; particularly in the administration of the more powerful remedies. It should be further considered, that when a patient dies, or grows worse under the care of a physician, his friends often torment themselves, by tracing back all that has been done, if they have been made acquainted with it, and may thus be

led, very unjustly, to charge the physician with what was the inevitable consequence of the disease."—*Gregory's Duties and Qualifications of a Physician.*

French Medicine.

Quinine combined with Snuff, and taken for intermittent Headachs (Cephalalgiæ).

BY DR. D'HUC.

It is some years since the narrator considered whether quinine, mixed with snuff, could not act more directly on the brain, than when applied to the stomach. He accordingly tried it several times with success.

He mixed fifteen grains of quinine with an ounce of tobacco snuff, and ordered it to be used for five or six days, when a cure was generally effected.—*Rev. Médicale Française et Etrangère, Mai.*

[We have repeatedly employed quinine in the treatment of nervous headachs with great success. Persons of a nervous temperament, whose mental exertions are considerable, are extremely liable to severe pain in the temple, forehead, or side of the face, which comes on at a certain hour, and recurs with regularity for four or five days or a week. The internal use of quinine in full doses, combined with the sedative preparations of opium, as morphia, and a strong anodyne embrocation applied over the affected side of the face, generally and speedily afford relief. In some cases the liquor arsenicalis succeeds when all other remedies fail. The mode suggested in the above extract is well worthy of a trial.—Eds.]

Intermittent Salivation.

M. Rayer relates the case of a woman, aged 24, of a nervous temperament, but healthful in other respects, who, for many years, at the interval of thirty, forty, or fifty days, was attacked with profuse salivation for thirty-six or forty-eight hours. The quantity of fluid excreted amounted to several pints in the course of twenty-four hours. Opium and quinine had no influence over this flux, but the subcarbonate of iron, administered for some months, effected a cure.—*Journ. de Chimie Médicale, Avril.*

Hôpital des Veneriens.

(*Original Report.*)

Tonsillar, sublingual, and anal Ulcers, and Papulæ of the Pharynx attributed by M. Ricard to secondary Syphilis.

BY ALEX. THOMSON, M.B. OF ST. JOHN'S CAMB.

Antoine Mauny, 24 years old, a Courmis-voyageur, having lately been confined for several months in the prisons of La Force and St. Pelagie for seditious cries, with a pale and haggard physiognomy, and a leucophlegmatic and nervous temperament, entered the venereal hospital the 11th of May, and up to the 13th has had daily repose in bed, half the ordinary nourishment, and yesterday a gargle made with marsh mallow decoction and six grains of gummy extract of opium (Par. Phar.). Had the itch three or four years back; had, also, about three months since, a pimple both on the frænum of the tongue and on the left external surface of the prepuce, at about the middle of that side, together with vegetations around the corona glandis, without discharge from the urethra or prepuce, and without ulcers. The pimple of the prepuce became an open sore, perhaps an ulcerated mucous pustule, and was treated, with that of the tongue and the vegetations, by a Dr. Bertrand, he thinks without the use of mercury. His description of this pustule is very indistinct, but he says it had hard edges, and therefore it might have been a chancre. Three weeks back he states that he had small chancres around the corona glandis and upon the anus, and a pimple upon the under face of the tongue. He main-

tains that all these affections broke out at the same time, and refers the affection of the mouth to his having frequently kissed the parts of his mistress, who, he says, had been treated for mucous pustules already at this hospital, and sent away cured about six months since. To the ulcers of the penis and sacrum he applied, it appears of his own accord, strong mercurial ointment, and thus cured them in about eight days; but the ulcers of the anus soon broke out again, and the affection of the mouth and throat became worse. Eight days ago he came to M. Ricard as an out patient, and was recommended repose, soothing nourishment, and a marsh-mallow gargle, which he has used up to the time of his entry.

This history is extremely improbable, because chancres of the anus do not come on at once with chancres of the glans; and he has no recent cicatrices on that part. There are, however, some cicatrices of long standing around the corona glandis, which he attributes to the vegetations which were cut off. He has now no disease whatever upon the penis, and no discharge; but on the circumference of the anus two ulcers, with elevated, indurated, bluish-red, regular margins, both having a hard base with a greyish-yellow flat even bottom, yielding little matter; a bluish-red areola of one line in breadth, and their long diameters parallel to the axis of the rectum, one placed in the anterior median line of the rectum, one-sixth of an inch long by one-eighth broad, and ascending from the margin of the anus into the rectum, the other one-fourth of an inch long by one-sixth broad, descending from the left margin of the anus at about three lines from which it commences. He does not suffer at all on going to stool. His skin, in general, is pale and earthy-looking, but over a space bounded by a horizontal line traversing the superior edge of the thyroid cartilage, and infringing laterally upon the trapezial muscles superiorly; laterally, by the anterior cervical edges of the trapezii, by a vertical line joining the inferior extremity of these to the axillary edge of the pectoralis major, and by the two upper thirds of that axillary edge; anteriorly, by an irregular line joining the inferior point of the lateral margin to the nipple, and the nipple to the centre of the superior margin of the sternum, of a pale brownish-red hue; at the margins slightly elevated above the skin, having the margins formed by a succession of arcs of circles, as though the whole had been the result of circular patches run together, and having the whole surface drier than the rest of the skin, duller, and covered with exceedingly minute and scattered scaly exfoliations of the epiderm. The same appearance occurred in small circular patches, irregularly distant from one another, generally about one-sixth to one-fourth of an inch in diameter, over the rest of the thorax and over the abdomen, but on no other part of the body. He attributes this appearance to the remains of the itch he had about three years since. Has also an affection of the mouth occupying the tonsils, anterior pillars of the palate, and the under surface of the tongue. The pharynx, the velum palati, particularly the uvula, and the vertebral wall of the pharynx, are mottled over with irregular patches of a florid red hue. The vertebral wall of the pharynx presents several scattered conical unulcerated pimples, from a line to a line and a half in diameter, and from half a line to one line in prominence. The tonsils are both prominent one or two lines beyond the margins of the palatine pillars, occupied entirely each by an ulcer, of which the circumference is regular, and the edges hard, abruptly elevated, about one line in prominence, and the bottom of the ulcers uniform, or nearly so, and red, with some spots of pus and mucus mingled here and there, having each about three quarters of an inch in vertical, by half an inch utero-posterior diameter. The right ulcer is already in part cicatrised along the middle of its anterior edge. The anterior pillars have each, about

the middle of their oral portion, an oblong, regularly margined ulcer, with the long diameter parallel to their own margin, with abrupt red hard edges, and a uniform yellowish-grey bottom resembling chancres, and having each a quarter of an inch in vertical by one-sixth in antero-posterior diameter. On the inferior surface of the tongue and on the corresponding lingual-maxillary-mucous membrane are several ulcers, or rather sores, of the same appearance, elevated from the surface for about half a line, rather more towards their middle, but nearly flat and uniform on their surfaces, except that on these a number of extremely small prominent rounded points can be seen pressed together, with regular recurved margins, either oval or round, very white, with a reddish blush all over the surface, and having upon them scattered rounded translucent points. Two of these, of half an inch long by one quarter broad, in contact by their anterior small end, and diverging from each other posteriorly, occupy the inferior surface of the tip of the tongue alone. Two more, each one quarter of an inch long by one-sixth broad, having their long diameters parallel to the raphe of the tongue, are situated in the middle of the inferior lateral surface of the tongue alone, the right at about an inch from the tip, the left at about one inch and a half from the same. Two more, one on either side, about a quarter of an inch long by one-eighth broad, with long diameter parallel to the raphe, occupy the middle of the linguali-maxillary sublingual mucous membrane, at about two inches from the centre of the anterior inferior alveolar ridge. Discontinued the opium gargle, and use a simple emollient one of marsh-mallow decoction; half nourishment. Made three inoculations in the upper third of the inner surface of the right thigh from the ulcers of the anus.

14th. Not even redness surrounding the inoculations. There is no change whatever visible in his condition; he has no suffering whatever except occasionally in swallowing, and in the evening, referable to the space between the os-hyoides and thyroid cartilage; has not been to stool for two days, but the stools were not painful; he has good appetite, sleeps well, and no remarkable thirst; the temperature of the skin is natural, and the pulse regular, and seventy-two in a minute. He tells me he has been in the habit of smoking a good deal. On either side of the frænum of the tongue, at about one quarter of an inch from it, and at about three quarters of an inch from the tip, on the under surface of that organ, are two small, conical, red pimples, without areolæ, with a white rounded summit, each about two-thirds of a line in diameter, and resembling a pustule. Continue the treatment; wash the small sores from time to time with decoction of linseed. Touch the anal sores with nitrate of silver.

15th. The state of the tongue, throat, anus, and skin are quite the same, and no new symptoms have appeared, although, for the first time this morning, my attention has been called to the mucous fold joining posteriorly the two dentor ridges, on which, on both sides, there is a real mucous ulcer, having its long diameter parallel to the long diameter of the fold. This ulcer on the right side is one fifth of an inch in vertical by one-sixth of an inch in transverse diameter, and placed at the upper part of the mucous fold, regular in its edges, which are elevated about one-third of a line, very red, and surrounded with a bright red areola of one line in breadth, having its bottom filled with a whitish slough, part of which had already fallen from the centre. That on the left side has one-third of an inch in vertical by one quarter of an inch in transverse diameter, having its edges regular excentrically, but concentrically gnawed, elevated to one line above the mucous membrane, hard, of a bluish red hue, without surrounding areola. Its bottom is somewhat irregular, but generally of a greyish white appearance, spotted

with red. No trace of the anal inoculations remains. Continue the treatment without gargle, with a whole warm bath of an hour's duration. He buys of his own accord about a pint of milk a day.

16th. He is entirely in the same state, except that he has a little less redness in the throat, is less pale and sallow, and has more expression in his face. Pulse tranquil, regular, seventy-two. Continue with a bath.

17th. Altogether quite in the same state, save that he complains much of the tongue being dry, of uneasiness produced by that dryness on the inter-maxillary ulcers. The tongue is broad, flat, white, furred, and not very moist. M. Ricard has re-examined with me this morning the anal ulcers, and admits their perfect similarity in all the external characters with chancre, but maintains that they are not, on account of the inoculations not having taken. It must be remembered they were but once tried. Ricard calls them ulcerated mucous pustules, simulating chancres. The pulse is regular, calm, moderately full, and sixty in the minute. One pill a day, containing 1 gr. of protoiduret of mercury, 2 grs. of thridace lactucarium, 2 grs. of extr. guaiacum, and one-tenth of a gr. of gummy extr. of opium. Decoction of sarsaparilla, with sudorific syrup, for drink.

18th. The anal ulcers are much improved, the anterior is three-fourths cicatrised, its edges are less elevated, and the bluish-red areola is gone; the lateral has lost its areola and the reddish-blue hue of its edges, and is fully one half cicatrised. The sores of the tongue entirely unchanged, except the anterior, of which the inner halves have entirely lost their whiteness, have become bluish-red, and appear less tumid than before, though still without epidermis. The only parts of the throat now red are the anterior pillars, the ulcer of the right of which is doubled in magnitude, and occupies its free edge as well as its anterior face. The left inter-maxillary ulcer is diminished below, but is prolonged upwards, so as to occupy now the whole of the free margin of the intermaxillary mucous fold. The general health is good, pulse regular, 72. Continue the treatment.

19th. The anal ulcers are all but cicatrised, and of a reddish-blue hue, and on a level with the skin. The skin eruption is unchanged, and he says it itches much when he is hot. The tongue and pharynx are in the same state. He does not sleep soundly, being constantly roused by the dryness of the throat. He goes to stool regularly once every two days. The pulse is regular, soft, 60 in a minute. At the edge of the hairy scalp, a little within that edge in the nape of the neck, and in the forehead, are a few conical pimples of a bluish-red hue, about one-eighth of an inch in diameter, elevated about two-thirds of a line above the epidermis, without areola, and crowned by a thicker or thinner flat crust of a brownish-yellow hue, enveloping or pierced by five or six hairs, and covered with little red points. They have now lasted five or six months, the crust falling from time to time, leaving the tumours visible, and allowing them to be seen formed of a number of smaller pimples aggregated together, and each covered with its own thin red epiderm, but replaced again the next day. This is a species of porrigo. Continue the treatment.

20th. The anal ulcers both cicatrised, of the same colour as the surrounding skin, the anterior a little bluish in the centre, and the lateral covered in the middle with a thin yellowish-brown crust, both round, notwithstanding their original oval form, each about one-sixth of an inch in diameter, the edges being still more elevated and harder than the middle of the cicatrices, though similar in colour to the skin. The anterior sores of the tongue, in the internal three-fourths sunk nearly to a level with the tongue, of a uniform reddish hue, and covered with an epiderm;

the external edges remaining in the same state; the right sore of the linguali-maxillary mucous membrane three-fourths cicatrised; the posterior of the sores of the left side of the tongue much increased, extremely white, similar in appearance, three-fourths of an inch long by one-fourth broad, parallel to the edge of the tongue by its long diameter; apparently irritated by the teeth, but not painful even on touch. The left of the two pimples on either side of the frænum of the tongue increased in magnitude and more conical, about one line in diameter, having a larger quantity of opaque white matter, apparently surmounting it, and with its epiderm unruptured; this white mass, however, proved to be solid, and connected with the subjacent tissues, when cut into. The ulcer of the left inter-maxillary mucous fold, in its lower half, has the edges softer, and nearly on the level of the mucous membrane, has the areola effaced, and is cicatrised in its outer third, the base of the ulcer throwing off aphthous sloughs. In other respects the pharynx is in the same state; but he complains of much suffering and dryness in the throat, particularly at night, and of a sensation of heat in the saliva. The pulse, however, is regular, soft, compressible, and 72 per minute, and the skin of the surface natural in temperature. Continue the treatment.

21st. Anal ulcers perfectly healed, with firm cicatrices, the crust having fallen from the middle of the lateral ulcer; the tongue absolutely in the same state; the left linguali-maxillary mucous membrane has its ulcer one half cicatrised, and the edges of the same sunk to a level with the membrane; the right has its ulcer completely cicatrised, except two small spots, each about a line long by half a line broad, at the extreme points of the original ulcer. The ulcer of the right anterior pillar of the soft palate, is completely cicatrised, with a thin epiderm, generally redder, and a little more elevated than the face of the pillar itself, but without contraction or puckering of the surface. That of the left palatine pillar has ceased to be hollow, has its edge less red, and sunk nearly to a level with the face of the pillar, is irregularly round in form, a quarter of an inch in diameter, covered on its surface with a whitish slough. The right tonsillary ulcer retains its elevated edges as though the ulcers were still open, but those edges are soft, and the whole ulcer with them is covered with a thin epiderm. He is in other respects in the same state. Continue the treatment.

22nd. Health unchanged; the cicatrisation of those ulcers already commenced to cicatrise, slightly advanced. Continue.

23rd. The throat is generally less red, the cicatrix of the right pillar of the palate is again opened, and nearly covered with a whitish slough; the ulcer of the left palatine pillar is considerably diminished, level with the surface, and surrounded by redness. The two ulcers of the tip of the tongue now all red, except two little points as large as linseeds, and still redder and more prominent than the surface, particularly in the part last cicatrised, but covered with an epiderm. He goes regularly to stool; he complains of pain for two hours back, above and behind the left horn of the hyoid bone, increased by pressure. The pulse is small, soft, compressible, regular, 66. Continue.

24th. Anterior ulcers of the tip of the tongue quite cicatrised, and both still elevated above the surface, but neither puckered nor contracted, and of a bluish red hue; both ulcers of the linguali-maxillary mucous membrane also cicatrised, reduced nearly to a level with the membrane, uncontracted, smooth, and only redder than the surrounding parts; ulcer of the right intermaxillary mucous fold in statu quo, of the left not contracted nor puckered, but all cicatrised from the outer margin, which is level with the membrane, except a small portion at the lower part, of

the size of a linseed, and having its new epiderm redder than the surrounding parts; the crusted pimples of the scalp nearly effaced, and leaving only a slightly elevated faint red pimple round the root of each implicated hair; the pain in the hyoid regions of the neck much diminished, in other respects the same. Pulse moderately full, soft, regular, compressible, 66; continues.

25th. Cicatrices of the anterior sublingual ulcers nearly in statu quo. Both of the linguali maxillary ulcers reduced to the natural level and line, without visible trace. The posterior right sublingual ulcer three-fourths cicatrised, nearly on a level with the surface of the tongue, not puckered, not diminished in size, and scarcely differing in hue from the surrounding parts. The left posterior sublingual ulcer all cicatrised, without contraction or puckering, except a roundish spot of about two lines in diameter, and resembling entirely in its cicatrised portion the cicatrix of the anterior sublingual ulcers. The ulcer of the right intermaxillary fold reduced by cicatrisation to the size of a linseed, and on a level with the surrounding membrane; that of the left perfectly cicatrised, but having its inner edge still harder, and elevated above the mucous membrane, and the whole cicatrising membrane paler than the surrounding parts. The right palatine pillar ulcer is again perfectly cicatrised, and on a level with the surface of the pillar, the cicatrix being flat, but redder than the surrounding parts. The elevated edges of the right tonsillar cicatrix gradually diminishing to their natural level; the left palatine pillar ulcer very nearly cicatrised, on a level with the pillar's surface, having scattered upon it two or three spots of the size of a linseed, whitish, the cicatrising membrane being a little redder than the surrounding parts. The left tonsillar is much diminished, has its bottom covered with moderately red granulations and a little mucous pus, its edge much less elevated, much diminished in thickness, the anterior having become attached to the body of the gland. The ulcer itself is still two-thirds of an inch in vertical by one-third in horizontal diameter. The pharyngeal pimples and skin unchanged. Continue.

26th. The anterior sublingual cicatrix losing its redness and elevation, and gradually assuming, from behind forwards, the same hue as the surrounding parts. The posterior left sublingual ulcer entirely cicatrised, and in a similar condition to the unlevelled part of that of the tip, but traversed with some vertical swollen elevated ridges, and a little redder than the surrounding parts. The right posterior sublingual ulcer perfectly cicatrised, and reduced to the natural level. The ulcer of the right inter-maxillary mucous fold all cicatrised, redder than the surrounding parts, without irregularity, contraction, or elevation, save a small spot of about the size of a linseed. That of the left inter-maxillary mucous fold in statu quo. The left palatine pillar ulcer all cicatrised also, with the exception of a small spot about the size of a linseed, with a smooth, unswollen, flat, bluish-red cicatrix. The elevated edges of the left tonsillar ulcer sunk to a level with the surface of the gland in the lower half to which they are adherent, and which is itself cicatrised to that extent, smooth, and covered with an unpuckered and smooth membrane. The right palatine pillar cicatrix is now of the same hue as the surface of the pillar. He has in the posterior part of the right hyo-thyroid region a swollen absorbent gland, of about one inch in vertical, by half an inch in antero-posterior diameter, hard, however, free from pain, and stationary for many years back. The thoracic skin is by no means changed in appearance; the gums commence to be slightly tumid, and of a bluish-red hue towards their dentar edges; and he suffers much from one or two decayed teeth. Hitherto, however, he has neither suffered pain in the

abdomen, or been in any way deranged in his usual stool every second day, which has not even been more liquid. Continue.

27th. The anterior sublingual cicatrices now reduced to the same level and hue with the surrounding parts in the posterior half. The left posterior sublingual cicatrix has lost all its ridges but one, and is nearly on a level with, though still slightly redder than, the surrounding parts. The left inter-maxillary fold has the inner margin of its cicatrix softened and reduced to its level, but is itself considerably thickened. The cicatrix is now of the same hue with the fold. The ulcer of the right inter-maxillary fold is quite cicatrised, with a flat, uncontracted, unpuckered cicatrix, level with the surrounding parts, and only slightly redder than them in the last portion cicatrised. Both anterior palatine pillars less red, the cicatrix of the right being now untraceable, the ulcer of the left being now perfectly cicatrised, with an uncontracted, unpuckered, unelevated bluish-red cicatrix, yet paler than the surrounding parts. The posterior upper fourth of the left tonsillar ulcer remains now uncicatrised, and with elevated edges, the anterior of the upper fourths having assumed the same appearance with the lower half. The pharyngeal papulæ less elevated, less extensive, and paler. He had two rather liquid stools yesterday; his gums are not so red or tumid as yesterday; in other respects the same. Pulse 78, soft, regular, compressible. Continue.

28th. The posterior left sublingual cicatrix now reduced to a level with, and the same colour as, the surrounding parts. The rest of the tongue unchanged. The left inter-maxillary fold has returned to its normal dimensions; the ulcer of the right inter-maxillary fold quite healed, on the same level and of the same hue with the surrounding parts. The left palatine pillar cicatrix also of the same hue with the surrounding parts, but having in its middle two small round, flat, thin, whitish-yellow spots, each one-third of a line in diameter, resembling little sloughs, and about one-half line distant from one another. The rest of the throat nearly in the same state, but generally redder, perhaps on account of his having smoked much the last two days. He had no stool yesterday; the pulse is 72, soft, regular, moderately full, compressible. The gums are in the same state. Continue.

29th. State quite unchanged. Continue.

30th. Not seen to-day, because he was at the baths. He remained in a hot Barège bath for an hour.

31st. The eruption of the skin, which has hitherto resisted all the treatment, has, since the bath, become paler, less brownish, less elevated, and is disquamating in numerous small white scales. The yellow spot-like sloughs on the left anterior palatine pillar fallen, and replaced by cicatrices. The tongue and throat in other respects in the same state. The pimples of the head entirely sunk to a level with the skin, leaving nothing but a few small whitish scales upon a pale bluish spot, equal in diameter to that of the grown pimples. These spots are four in number, and absolutely symmetrically placed — two, each three inches and a half behind the ear, and one and a half below the spine of the occiput; the other two, four inches each from the ear and the same from the root of the nose upon the frontal region. Continues, without bath. Mouth now quite natural.

June 1st. He is in all respects the same, save that the remainder of the left tonsil is now covered with an epithelium, thin, but smooth, regular, and unpuckered, although the posterior edge of the ulcer is not as yet sunk to a level with the body of the gland. The small hard pimples with white heads, seen under the tongue, on either side of the frænum, remain unchanged.

He is discharged as cured, but recommended to come to the hospital in eight days, to show himself and to

take some sulphur baths for the eruption on the skin. The papulæ on the vertebral wall of the pharynx have not been influenced in any manner by the treatment, except in becoming less red.

He has not since returned to the hospital.

(*The remarks on this Report in our next.*)

German Medicine.

A comparative View of the Expectant and Homœopathic Medicine. Extracted from the Journal of the Minister of the Interior of the Empire of Russia, 1832.—*Annales de Hecker*, 1832.

Dr. Herman offered to the Russian authorities to prove the superiority of the homœopathic medicine over other curative methods, and was assigned a ward in the Hospital of St. Petersburg. During five months he treated 395 patients, 341 of whom were cured, 23 died, and 31 were under treatment. The proportion of deaths to cures were 1 in fifteen. Consumptive and dropsical cases were not treated. "I do not know," says our German contemporary, "what confidence to accord to these results, which reduce therapeutics to zero, and end in making an art *plutot funeste qu'utile.*"

Degenerescence of the Kidneys.

BY DR. GRAFF, OF DARMSTADT.

The kidneys are subject to various alterations which are seldom suspected during life, as the following cases prove:—

A man, aged 55, committed suicide by dividing the left carotid. The right kidney was very much increased in size; it was filled with large hydatids, some of which contained from four to five cups of fluid, the smallest of these being about the size of a *pois*. The substance of the kidney was pale, and the serosity was removed; the entire mass resembled an assemblage of empty sacs. One might perhaps think that this disease exerted an injurious influence on the mind of the deceased and led him to commit suicide. The following case destroys this opinion:—

The porter of the hospital, aged 82, was always good humoured, never made any complaint, until two days before his death, when he experienced a difficulty in making water. The autopsy presented the following alterations:—The prostate indurated and hypertrophied, the urethra thickened in the corresponding portion, the bladder distended to three times its ordinary size,—there were three small pouches communicating with the bladder by a large opening. The right kidney was normal, the left transformed, and contained four or five ounces of fluid. The right ureter was distended; the left was normal. There was stricture in the urethra, which probably gave origin to the state of the bladder and other parts.—*Journal de Hufeland.*

[A case occurred a short time since, the preparation of which is at Guy's Hospital, in which the left kidney was so much enlarged as to fill the whole abdomen, being one large sac. The left kidney was healthy, and performed its functions. Dr. Pearce, Dr. Lush, Mr. Jenkins, and Mr. Nettlefold, also saw this case before and after its final termination. We have also attended a gentlemen with Mr. Costello, in whom suppuration of the left kidney, preceded by rigors, was very rapidly induced, in consequence of the irritation of calculus in the bladder. The patient was advanced in life, enjoyed good health, until within two months of his death.—Eds.]

Review of the Diseases in the Internal Clinic of Strasburg, under Professor Lobstein, during the Years 1830, 1831.

BY MAURICE RUFF, M.D.

Among the interesting facts stated in this paper, we find the following:

Paralysis of the extremities caused by cartilaginous growths, about the

size of lentil seeds, in the spinal arachnoid, along the whole surface of the spinal marrow from the fifth dorsal vertebra.

Active aneurism of all parts of the heart, except the left ventricle.—There was contraction of the left auriculo-ventricular orifice, which seemed to explain the development of the right cavities and left auricle. Palpitations, violent pulsations in the epigastrium and in the right side of the chest, lividity of the lips and nose, were the principal phenomena observed during life. Neither the purring tremor, nor bruit de râpe of Laennec, nor the inequalities and intermittences of the pulse indicated by Corvisart was present. The pericardium adhered intimately to the heart, and perhaps pericarditis was the first part of the other disorganisations.

Sporadic cholera proving fatal, leaving the œsophagus of a violaceous red, mixed with black patches.

Miliary fever, which is extremely frequent at Strasburg, proving mortal, and leaving no morbid trace behind, except a rapid tendency to putrefaction of the body.

Reviews.

On a New Membrane in the Eye, being the Substance of a Lecture delivered at Oxford, before the Meeting of the British Association for the Advancement of Science. By George Hunsley Fielding, Member of the Royal College of Surgeons, &c.

The author details numerous experiments in proof of the existence of a membrane in the eye, which has hitherto escaped observation; but his remarks are so intimately connected with each other, that we cannot find space for them. The only extract we can make is the following:—

"Having thus shown that the surface placed behind and in connexion with the retina does not possess the usual attributes of a pigment; that its colours are not the result of any secreted matter; that it consists of an indefinite number of layers, separable from the ruyschiana; that it possesses *elasticity*, and above all *circulation*, we are, I think, warranted in coming to the conclusion that it is membrane *and not* pigment.

"To this membrane I have given the name of membrana versicolor, as in some degree descriptive of its appearance and properties.

"It now only remains, in conclusion, to offer some brief observations on its use, and on the necessity that such a membrane should exist.

"It is generally assumed and believed, that the image of any object presented to the eye is pictured upon the retina,—and by it the sensation producing vision is transmitted along the optic nerve to the brain. With this theory I differ most decidedly, and trust to lay before you satisfactory reasons for so doing.

"The retina, during life, is almost universally acknowledged to be *transparent;* and those who do not accord with this opinion call it *semi-transparent.* I believe it to be *perfectly transparent.* I have seen great numbers of retinæ, at various periods after death, and always found a degree of opacity in them which, I have no doubt, depends upon the absence of vitality. I once, however, had an opportunity of examining the eye of a horse (which had dropped down dead suddenly) while all the humours, &c., were quite warm. Here the *retina was quite transparent*, and possessed internally a very light pinkish-coloured hue, produced, no doubt, by the presence of fluid blood in the tunica vasculosa.

"If we look at the eye of the cat, in the dusk, it appears quite luminous,—and this effect can only be produced by the reflection of the rays of light from the membrana versicolor, which in this animal is of a bright golden colour. Now if the retina (which intervenes between the beholder and this bright membrane) were semi-transparent, it would be

impossible to have this effect, because the retina would act like ground glass before a lamp, or gauze before a looking-glass.

"Of course, in all philosophical investigation, we are not justified in ascribing to matter properties which are not known and cannot be proved to exist. It is acknowledged that neither light nor heat produces any sensible effect until they are obstructed in their course,—and, consequently none will be produced by their passing through a transparent medium. Therefore if the retina be transparent, no image can be imprinted on it, because the rays of light must pass through it*.

"It is acknowledged that there is no susceptibility of vision at the point of insertion of the optic nerve, and hence the theory of Marriotte that the choroides is the true seat of vision.

"I have myself seen, in a recent eye, the light pass through a full quarter of an inch of the optic nerve; and so great was the transparency even of this thickness of nerve, that the light was not red but straw-coloured when seen after its transmission. How much easier then must it be for light to pass through an expansion of the same nerve, of such extreme tenuity as the retina?

"If any one were to tell us to project an image upon fine transparent glass with a double convex lens, or to heat water with a powerful lens alone, we should think it sufficiently ridiculous; but allow us to place some charcoal at the bottom of the water, in the focus of the lens, and we can make the water boil; or to put a foil behind the glass, and we shall have an image.

So, therefore, it is impossible that the transparent retina can receive and maintain the image of any object. Indeed, the experiment may be tried on the retina itself, after death. I have repeatedly seen that when this membrane has become only partially opaque (as it does soon after death) that if you project an image upon it, that image will be exceedingly faint and nebulous; and allowing the same to take place, *cæteris paribus*, in the living eye, that image would be totally unfit for the purposes of distinct vision.

"But the retina is transparent and consequently cannot receive an image; and immediately behind the retina and in contact with it, we are told, we have the pigment of the choroid, the use of which is to stifle and absorb the rays of light after they have passed through the retina;—therefore, according to our present system, the image projected by the crystalline lens upon the retina will pass through that membrane, and be finally stifled and absorbed by the pigment of the choroid, which is absurd.

"But even allowing that the retina is not transparent but semi-transparent, it has been already shown, that it can but receive an exceedingly faint and nebulous image, which would be totally unfit for distinct vision.

"It is evident, therefore, that some other part of the eye must be appropriated for the reception of the image*.

"* The division of the optic nerve causes blindness. The same effect is produced by dividing the trigeminus. Both, therefore, are essential to the performance of vision. The latter is a ganglionic nerve, the former is not. Reasoning, therefore, *à priori*, we should expect to find the optic the motor nerve, the trigeminus the nerve of sensation. As far as we know at present, neither of these conclusions would bear the test of experiment. We find, on the contrary, that the iris, which is so largely supplied with nerves from the lenticular ganglion, is *insensible to mechanical stimuli*. It appears to be only sensible to light. Yet the other branches of the same nerve confer the most exquisite sensibility upon other parts of the face,—nay, even of the eye itself.

"The retina, as we should expect to find, is insensible to stimuli. Still we cannot, at present, avoid believing it to be the true nerve of sensation for the production of vision."

"* It has been said that the formation of an image is not essential to vision. With this, however, I cannot agree, were there no other reason than the fact *that an accurate image is always depicted in the eye*, and the

"I shall now proceed to show that the membrane I have been describing is the one intended for this purpose."

Outlines of Botany, being a Practical Guide to the Study of Plants. By Gilbert T. Burnett, Professor of Botany in the King's College. Numbers 1, 2, 3.

Professor Burnett possesses qualifications of no ordinary kind for the task he has undertaken. He has pursued the science of botany with an ardour and enthusiasm rarely equalled. He combines a mind of the highest intellectual order, with a zeal and industry which must render him an ornament to the scientific world. If he pursue the career he has commenced with the same vigour and the same judgment he has already evinced, we feel persuaded that he must surmount all the difficulties which surround a young man entering upon arduous paths, and we cannot but think he has been much undervalued by some of our cotemporaries. We regretted at the last lectures he delivered at the Royal Institution, to observe the very delicate state of Mr. Burnett's health, and we are sorry to learn that his friends feel some anxiety on his account. That he is highly gifted is generally acknowledged, though there may be points with which some fault has not unjustly been found, but they require a little attention only for their correction. The principal of these is thought to be that which has been denominated pedantry, a little occasional use of turgid language, and some display of a kind of knowledge which the subject does not actually demand.

But when we remember the difficulties of acquiring science, and the circumstances of association under which information it is collected, we cannot be surprised that those who have laboriously toiled and gradually learnt do not express themselves with ease and with simplicity. It almost always happens, that those who rapidly acquire quickly forget; and, on the contrary, those who laboriously and industriously learn retain their knowledge long and bring it, on common occasions, into the field.

The work before us has these faults to which we allude; there is an appearance of pedantry, and the language is somewhat cumbrous and heavy; but how amply are these failings made up by the clearness of the ideas, their philosophical arrangement, and the accuracy with which they are given. These outlines form a most useful practical guide to botany, and most admirably indicate the course the student should pursue. As an elementary work it is invaluable; and when the numbers are all concluded, we shall feel a great satisfaction in bringing it again before the attention of our readers.

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consequent presumption implied in supposing that any structure or function of the body is designed in vain."

CASE OF SCARLATINA MALIGNA SUCCESSFULLY TREATED BY COLD WATER.

BY SAM. JACKSON, M.D. OF NORTHUMBERLAND.

[Communicated in a Letter to the Editor.]

My oldest daughter, of 11 years, was, a few weeks ago, seized with cynanche maligna, with far more fever than usually attends that malady. Her fauces were universally inflamed, and on the second day, the cineritious specks appeared. I bled her in the height of the evening paroxysm to eight or ten ounces, though I knew that the fever was certainly typhus, with the pulse 160. But the difficulty with me consisted in the choice of gargles. From some experience and much contemplation last fall, I had fixed my mind on sac. sat. as the most proper *till* sloughing might take place.

To this then I resorted, but quickly became dissatisfied lest she might swallow so much as to cause lead colic. The nitrate of silver was then tried, twenty-four grains to the ounce of

water. From this I had some hope, derived partly from the Medical Recorder, vol. xiii. p. 123, and partly from the known effects of a milder solution in ophthalmia. But I soon became dissatisfied with the use of a stimulus to parts so highly inflamed, notwithstanding all that has been said in favour of stimuli in these cases. My anxiety on this point became excessive, for I was possessed of the opinion that on the speedy improvement of the local disease depended the fate of my child. I had lately seen cases successfuly treated by my friend, Dr. Vanvolsap of Lewisburgh, eight miles above us, by means of stimulating gargles, particularly the capsicum, but I could not prevail on myself to use them till further mortification might reduce the inflammatory action.

Cold water she desired above all things, and I determined to give it a fair trial. She was then permitted to drink the coldest ice-water, and to hold ice in her mouth; but this last experiment was dangerous lest she might swallow it, and bring on spasms of the stomach. It was then enclosed in a gauze bag, and put far into her mouth to be dissolved and swallowed. Now, for the first time, the fourth day of her disease, I felt satisfied with my prescriptions, and she was desired to use the ice freely, and to drink largely of ice water. The good effects were immediate, surprising, incredible, and almost divine. Within a few hours the pulse was reduced from 160 to 120; the circumscribed crimson disappeared from her cheeks; the extremities became warmer as the fauces and stomach were cooled; the whole countenance was changed; the typhus distress left it, and something of the vivacity of common fever supervened. No other remedy was thenceforward used except some laxatives; and in three days from the time the ice was tried, there was no fever left, nor any sign of inflammation in the fauces.

This disease was, last fall, epidemic a few miles above us, and some died. One of my other children had it in the course of the winter, but very slightly; and, as I hope to have no further need of this remedy, and can give it no further trials at present, I commit it to your consideration. I have just heard that scarlatina cynanchica is mortal in your city; and as this is certainly the same disease as the cynanche maligna, I hope you will give my remedy whatever attention it may seem to merit, independent of what little I have done.—*American Journal, May* 1833.

SIX CHILDREN AT ONE BIRTH.

On the 30th of December, 1831, the wife of a man named Dernian Ploson, living in the village of Dropin, in Bessarabia, was delivered of six daughters, (the fruits of one pregnancy,) all living, and only a little smaller than the usual size of children at birth, with the exception of the last, which was much the least. The mother is not quite twenty years of age, and of a strong constitution. The whole six children lived long enough to be baptised, but died in the evening of the day of their birth. The mother suffered from a severe indisposition subsequent to her confinement, but is now quite well.—*Gaz. Médicale.*

THE APOTHECARIES' AMENDMENT BILL.

We stop the press to announce that the passing of this Bill will not take place this session of Parliament.

CORRESPONDENTS.

F. S. is unreasonable. The general opinion must be preferred to the individual. There are 100 to 1 against him.

The remainer of correspondents next week.

Errata in No. 74.—P. 702, col. 1, line 28, for *Verey* read *Virey*; col. 2, line 7, for *Rouillaud* read *Bouillaud;* line 27, for *thin* read *third.*

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 76. SATURDAY, JULY 13, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XLIV., DELIVERED JAN. 28, 1833.

Gentlemen,—In the last lecture, when considering fractures about the elbow, I ought to have apprized you, that the joint should not be kept motionless too long, as this would expose your patient to the risk of anchylosis, or a permanently stiff joint. Supposing, therefore, the fracture to be situated at the lower part of the humerus, the rule is, at the end of three weeks, to let the patient have the benefit of what is called *passive motion* of the elbow; that is, he is not to move the joint by the action of his own muscles, but another person is gently to bend and extend it for him for a certain time every day. When the fracture is one of the olecranon, a little more time must be suffered to elapse, before passive motion is begun; for if it be performed at too early a period, the ligamentous substance, uniting the fragments, will be elongated, and the limb consequently weakened.

The next fractures, gentlemen, for your consideration, are those of the *thigh bone;* and they are conveniently divided into three kinds, in respect to situation: the first comprises those which occur in the upper part, or in the neck, of the bone; the second such as take place in the middle third of its shaft; and the third, fractures situated in the lower third of the shaft, or towards the condyles of the femur. Those which occur in the middle of the shaft are most frequent in persons under a certain age; but in old subjects, fractures of the neck of the bone are almost as common as those of the shaft itself.

Fractures of the shaft of the femur may be *simple* or *compound;* they may also be *complicated* with a wound of the femoral artery, which, however, is a very rare occurrence. Sir Astley Cooper met with such a case, in which he was induced to practise amputation. Fractures of the thigh bone may also be *double.* In children, the shaft is frequently broken in the *transverse* direction; but, in other subjects, the fissure is generally *oblique.* The fracture may be caused by direct violence, as by the passage of the wheel of a heavy carriage over the limb, the fall of a heavy body upon it, the kick of a horse, and various other kinds of injury; but, more frequently, the femur is broken by some description of force, which first bends it, and, when it has yielded as much as it can, it breaks, generally at some point of its middle third.

What are the symptoms of a fracture of the shaft of the thigh bone?—Supposing the fracture to be oblique, as is generally the case, except when the accident takes place in a child, you will mostly perceive a shortening of the limb, the lower fragment being drawn behind the upper one, and a little inwards; the limb will be flexible in the situation of the fracture; the lower fragment, with the knee, leg, and foot, will usually be rotated outwards, all the stronger muscles, acting upon that part of the broken bone, tending to twist it in the direction which has been specified. I mentioned, that the lower fragment is commonly drawn upwards and inwards, behind the upper one; but you ought to be aware, that, in a few instances, (and two or three such cases have been lately recorded in periodical works,) the lower fragment is displaced in a different manner, and so as to lie in *front* of the upper one; but this occurrence is a deviation from what is ordinarily seen, and is explicable by the particular mode in which the accident has been produced by the application of direct violence, and the operation of the force upon the posterior part of the limb, so as to propel the lower fragment forwards. Another symptom of a broken thigh is a crepitus, that can be distinctly felt on moving the limb. Then,

besides the shortening of the limb, you may remark other forms of displacement: thus, if the fracture be an oblique one, you will observe, together with the shortening of the limb, a rotation of it outwards, and, what is termed, the angular deformity, the axis of one portion of the bone not corresponding to that of the rest of it. When these various circumstances are attended to, there can be no difficulty in making out the nature of the case, the symptoms being so distinct and characteristic of the accident, that a mistake is scarcely possible. The retraction of the lower fragment, it is hardly necessary to say, constantly occasions an increased bulk, or fulness of the upper part of the thigh, because the attachments of several of the muscles are brought nearer together, and their bellies swelled into a preternatural shape. The truth of this observation is well illustrated in the state of the adductor muscle, which, by forming a considerable prominence at the upper and inner part of the thigh, communicates to it a very unnatural shape. That it is the muscles, which produce the displacement of the fractures, cannot be doubted, because, if the muscles of the broken limb were paralytic, you would not observe any retraction of the lower fragment, or shortening of the thigh. Now in a person, affected with paralysis, there might be no shortening of the limb at first, or while the muscles were incapable of action; but, if the paralytic affection happened to yield before the fracture had united, a retraction of the lower fragment might yet ensue. Indeed, such a case happened in the practice of Desault; it was brought to the Hôtel Dieu, and is recorded by Bichat. When the accident took place, all the muscles of the lower extremity were in a paralytic state, and, though the fracture was an oblique one, no retraction whatever of the inferior fragment followed. The moxa was applied, and, in a few days, the muscles began to regain their power of action; and in proportion as this improvement was effected, the ends of the fracture acquired a tendency to displacement, not previously evinced, and a considerable retraction of the lower fragment ensued. In transverse fractures of the shaft of the femur, there may be no shortening; but then there will yet be the angular deformity and the rotation outwards. Now, gentlemen, from what has been already stated, you will comprehend, that it is chiefly the lower portion of the broken femur which is displaced; but, it would be incorrect to regard the displacement as exclusively affecting only the lower fragment. When the patient is placed on too soft a bed, which yields to the weight of his trunk, the pelvis sinks, and pushes the upper fragment along with it, which thus has a disposition to be propelled over the lower one. Supposing also the fracture to be situated just below the trochanter minor, it is evident that the muscles attached to that process might act with great effect in displacing the upper fragment in the direction forwards and upwards.

I may next observe to you, gentlemen, that it was principally with reference to fractures of the lower extremity, that Mr. Pott recommended the plan of attending to the relaxation of the muscles, as the best means of facilitating the reduction, and promoting the maintenance of the fragments in their right place. One would suppose, from several passages in his treatise on this subject, that he really imagined it possible completely to relax all the muscles by a certain position of the limb, and this in such a manner as entirely to deprive them of all power of disturbing the ends of the broken bone. It is hardly necessary for me to inform you, that no position of the limb will do so much as Mr. Pott was induced to believe. A certain position may relax those muscles, which have the greatest power of disturbing the fracture; yet the mass of muscular fibres remaining unrelaxed, will always be sufficient to derange the fracture, and consequently position alone, however important and useful it may be, will not accomplish strictly what Mr. Pott represents; it will not effectually deprive the muscles of the power of disturbing the fracture. This truth makes you at once understand how necessary it is to attend to other means for maintaining the reduction, and especially to avail ourselves of the best mechanical contrivances for this purpose. So correct is the principle which I am now adverting to, that if the particular position of the limb selected for the purpose of relaxing the muscles, were to be incompatible with the employment of the most efficient apparatus, then, according to my conceptions, the treatment would be erroneous, because, advantageous as position certainly is, inasmuch as it is the means of relaxing the most powerful muscles connected with the broken limb, I should say, that the aid of a proper apparatus is still more important.

Gentlemen, broken thighs are treated on three different plans, each of which is occasionally preferred. In the first, the limb is kept extended, and the patient lies on his back, a position disapproved of by Pott, because it does not relax those muscles which have the greatest power in producing displacement, namely, those which are capable of drawing the lower fragment upwards, inwards, and behind the upper one, or, in other terms, the muscles arising from the pelvis, and inserted either into the femur, the patella, the tibia, or the fibula, and which making the pelvis their fixed point, and the portion of the limb below the fracture their moveable one, draw the lower fragment in the direction I have explained.

In the extended position, various kinds of long splints are employed; those on the table are designed for such as were used by Desault, but they are not made exactly as he directed; in fact, he employed three splints for a broken

thigh, one on the outside of the limb, a second on the inside, and a third on the upper part, or front of the thigh. He was very particular in placing the patient on a firm unyielding bed, for if the pelvis sinks into a hollow of the bedding, this change will inevitably derange the position of the fragments. He began with applying the eighteen, or many tailed bandage, then a long splint, well padded, on the outer part of the limb; he next put a handkerchief or band on the perineum, or rather on the tuberosity of the ischium, the ends of which handkerchief or band were carried through the fissures, which you see in the upper part of the long external splint, and you may observe, that the effect of this must be to prevent the splint from slipping upwards. Then the foot was also made steady by passing a handkerchief or bandage through a fissure in this part of the splint, which was brought over the foot across the instep, and then fastened to the splint again. Thus the limb was fixed and secured both at the hip and the foot. Other splints, however, were made use of, one at the inner side of the limb, extending from the groin to the foot, and a common one, reaching along the front of the thigh from the groin to the kneepan. The objection to Desault's apparatus is, that the bandage, which is intended to go over the tuberosity of the ischium, can never be kept in the proper position, it always slips down on the thigh, and there produces an inconvenient degree of pressure, pain, and sometimes even ulceration and sloughing.

Hence Baron Boyer invented another apparatus, which was also intended to be used in the straight position of the limb. His long external splint is furnished with a screw at the lower end, by means of which it can be lengthened or shortened at pleasure. His intention in making use of an apparatus of this kind, is to keep up perpetual extension; but, for the screw to have its full effect, it is necessary, that the upper end of the splint should be securely fastened to the pelvis. For this latter purpose, Boyer puts a thigh-strap over the tuberosity of the ischium, much in the same manner as Desault did the handkerchief, or band; but the portion of the thigh-strap below the crista of the ilium on the outside of the pelvis, had a kind of fob or pocket in it, calculated to receive the upper end of the splint, and thus prevent it from slipping upwards, or moving at all laterally. The limb being first put up with the eighteen tailed bandage, the long external splint, lined with soft materials, is applied in the manner I have described; the foot is next fixed much in the same way as in Desault's plan, and the inner and upper splints are put on, perpetual extension being kept up by lengthening the outer splint, which is done by turning a kind of key *at the lower part of the splint*, so as to act upon the longitudinal screw. This is certainly a better plan than Desault's, and it has been sometimes tried in London; but it is liable to one of the objections urged against Desault's method, namely, that the strap which goes across the upper part of the thigh causes a great deal of pain and other inconveniences, while that which goes across the foot is sometimes so injurious as to produce ulceration and sloughing. About twenty-five years ago, Boyer's plan had more advocates than at the present day, when the advantages of inclined planes are more familiarly known to the profession.

The second plan of treating fractures of the shaft of the femora, is that so much recommended by Mr. Pott, namely, one in which the limb and the pelvis are laid on their external side, with the thigh half bent on the pelvis, and the leg moderately bent upon the thigh. In Pott's method, two splints are sometimes applied, but generally four. The fracture is to be reduced, by an assistant taking hold of the limb above the broken part of the bone, and performing counter-extension, while the surgeon makes extension from a part of the limb below the situation of the injury. In France, another mode of reducing the fracture is followed:—there the surgeons do not take hold of the broken bone at all, but one assistant fixes the pelvis, while the extension is performed at the foot or ankle; a practice, however, only applicable to cases in which the straight posture is chosen. In Pott's plan, then, the patient is laid on his side, with the pelvis inclining as much as possible in the same direction. The limb is also placed on its outer side, with the thigh half bent upon the pelvis, and the leg bent in a similar degree upon the thigh itself. Before reducing the fracture, the long splint, with the pad and eighteen-tailed bandage upon it, should be put under the thigh; the reduction of the fracture is then to be accomplished, and the tails of the bandage next methodically laid down, one over the other, beginning with those just above the knee. You will find, that the eighteen-tailed bandage, when neatly applied, looks exceedingly well, and it is certainly very convenient; for it can be opened without the slightest disturbance of the fracture, or motion of the limb. In private practice, it is usual to apply, under the bandage, a piece of brown-soap plaster to the integuments in the immediate vicinity of the fracture. By proceeding in the manner that has been explained, you will be enabled to apply the other splints with the greatest facility. When Pott's position is adopted, one important thing is to afford due support to the foot; for which purpose a soft cushion or pillow is generally employed; and the knee must also be supported by similar means. But, gentlemen, this treatment of broken thighs in the bent posture, with the patient on his side, is, I think, not exactly consistent with the most scientific principles. In the first place, one general principle, acknowledged by all the best practical surgeons, is that of keeping all the joints in any way connected with a fractured

bone perfectly motionless; but here we find no measures for the fulfilment of this very important object. On the contrary, the patient can move every joint without restraint. The splints do not confine either the hip, the knee, or the ankle; hence, I should say, that this is an inferior method of treatment, and I am not surprised, that it should be one which occasions deformity more frequently than any other. But, supposing this position were in some respects the best that could be selected, yet, as it could not be maintained for any length of time, it would prove inefficient. In fact, take what pains you may, the patient will never remain long in the posture you have placed him in, but will always turn on his back, and thus the fracture will become deranged again.

Within the last twenty-five years, a third plan has been proposed and adopted, which consists in placing the patient on his back, with the thigh bent on the pelvis, and the leg bent on the thigh, while the limb is supported in this position on a *double inclined plane.* The most simple instrument of this kind merely consists of two boards of the requisite length nailed together at an angle, and provided with a foot-piece, and a few pegs along the margins, to keep the pads from slipping off the apparatus. Any carpenter could make such a contrivance in a quarter of an hour. These double inclined planes, however, are now brought to great perfection; and fracture beds, as they are called, are generally so constructed, as to admit of serving the same purpose. The double inclined plane on the table is that invented by Mr. Amesbury, and, as far as I can judge, it is one of the best. You see that it may be fixed at any angle you please by means of a screw; then the thigh part may be lengthened or shortened at the surgeon's option, which is another advantage, the brass part sliding very conveniently in either direction. The foot-piece also admits of being shifted, and of its position and length being adapted to the particularities of every patient.

Well, supposing you were about to treat a patient with a fractured femur by means of this apparatus, you would have no occasion for an under splint, because the surface of the machine itself answers the purpose of one. You would keep the ankle steady by means of this leather case or slipper for the foot. Three splints are then to be applied, one on each side of the thigh, and one along the front part of it. Thus, you see, the limb will be kept perfectly steady, and all the joints motionless. By means of the thigh-strap and pelvis-strap, belonging to the apparatus, the pelvis and lower extremity are rendered, as it were, one piece, only to be moved together. The strap which I now have in my hand is passed round the pelvis, and through the fissure in the upper part of the external splint, near the great trochanter. This is one of the best inclined planes we have: it is excellently finished, and the splints of a good shape, light, yet strong. The maker of this apparatus is Mr. Weiss, of the Strand.

The treatment of broken thighs on the double inclined plane is much approved of at the present day, and is found to be less irksome to the patient than other plans. Gentlemen, you cannot doubt, I think, that it is a more scientific method than Potts', which leaves all the joints unsupported and moveable, and has no contrivance, except the cushion, for keeping the foot motionless and in the right position. When you use the double inclined plane, you must be particularly careful to have it covered with soft materials, especially the projection under the ham. The treatment of broken thighs on the double oblique plane, perhaps, has more recommendations and fewer objections than any other plan which can be mentioned. I may say that it fulfils every indication more efficiently and judiciously than any other method that I am acquainted with.

Fractures of the neck of the thigh bone are divided, first, into those which happen *within the capsular ligament;* secondly, into those which occur on the outside of it, or partly in this situation; and thirdly, into such as extend through the great trochanter. As for fractures of the neck of the thigh-bone, *entirely within the capsular ligament,* I wish you to remember, that they are rare in persons under the age of fifty.

With respect to the symptoms of a fracture, within the capsular ligament, the patient will of course complain of severe pain in the hip; and there will also be shortening of the limb. Sir Astley Cooper states, that the limb will be shortened from one to two inches. Of course this will depend on whether or not the reflection of the capsular ligament over the neck of the bone be torn; for, in the event of its not being lacerated, there will be no shortening of the limb at all; neither will there be another usual symptom, namely, eversion of the limb. When the neck of the thigh-bone is broken, as all the strong muscles attached to the shaft and trochanters, have a tendency to turn the limb outwards, so as to evert the toes and knees, this is a common symptom of the accident; but if the reflection of the capsular ligament, over the neck of the femur, happen not to be torn, such symptom may be absent. When the limb is much shortened, you will not feel a crepitus, as long as it remains in this state; but, if you draw the limb downwards, and rotate the foot inwards, the crepitus may then be distinctly felt. When there is displacement, you may also remark, that the great trochanter does not form such a prominence at the side of the pelvis as it naturally does; and if there be a shortening of the limb, the process will be found to be much nearer to the crista of the ilium, than in the sound state of the limb. Another symptom, accompanying and indeed resulting from the displacement of the outer fragment, is a great fulness of the upper part of the thigh, the

muscles being thrown into folds, and swelled to an unusual size.

I may next remind you, gentlemen, that, in a few uncommon examples, the knee and toes are actually turned inwards, instead of outwards, as is almost always the case, and the explanation given of the fact is, that the fracture takes place sufficiently towards the outside of the great trochanter, to prevent the muscles from acting on the lower fragment so as to turn it outwards,, while some fibres of the glutæus medius, and minimus yet continuing attached to the external portion of the trochanter, retain the power of turning it inwards, and consequently the whole limb. This is one explanation that has been suggested, but it is not considered altogether satisfactory by some very good judges. Indeed, it is alleged, that fractures, entirely within the capsular ligament, are sometimes attended with inversion of the limb, and to such cases the explanation proposed would manifestly not apply. Besides, as Dupuytren has remarked, why should not the great adductor muscle be more than enough to counteract the action of the anterior fibres of the glutæus medius and minimus? At all events, the cause of the occasional inversion of the limb, when the fracture is completely within the capsular ligament, if it be a fact, appears to me at present not to be accounted for.

When the fracture is on the outside of the capsular ligament, that is, between that ligament and the trochanter major, the retraction of the limb is less. This kind of accident is mostly occasioned by the application of great and direct violence, while other fractures, situated within the capsular ligament, are usually produced by slighter degrees of force. The generality of cases, which occur in London, are caused merely by the foot slipping off the curb-stone, or by falls on the hip, not always attended with great violence. The reason why so slight a cause is capable of producing this mischief, is, that, after the age of fifty, the neck of the thigh-bone becomes weak and slender, and its shell thinner, and incapable of affording that resistance to forces calculated to fracture it, which it did in an earlier period of life. It is partly on this account, that these fractures are so frequent in old people, and partly on account of a change in the direction of the neck of the femur, which is found naturally to take place in old people; for, in consequence of its greater weakness, it bends upwards, and forms a right angle with the pelvis, instead of sloping more or less upwards from the trochanter to the head of the bone. Here then, gentlemen, you discern another reason why fractures more easily take place in aged than young subjects, because any force, operating on the trochanter major, will break the cervix of the bone with greater certainty, when the trochanter projects very much out, in consequence of the change in the direction of the neck of the bone. In some old subjects, in fact, we find the trochanter absolutely higher than the head of the bone, the neck having yielded thus much to the weight of the body. But the other fracture of the neck of the femur, namely, that which takes place further outwards, or more towards the great trochanter, beyond the external limit of the capsule, is generally produced by great degrees of violence, and is not particularly restricted to old subjects, but presents it also in young ones. Therefore, when great violence has been concerned, the patient is under fifty, and the limb is not much shortened, you have ground for suspecting that the fracture is on the outside of the capsular ligament, or partly on the outside of it, for sometimes the fracture is oblique, and sometimes longitudinal, and occasionally it is incomplete, the fissure extending only partially through the neck of the bone. Then, gentlemen, I explained that you will not generally feel a crepitus in fractures within the capsular ligament, unless the limb be brought to its natural length; but, when the fracture is on the outside of the capsular ligament, you may immediately feel a crepitus with facility. If the fracture should extend obliquely through the trochanter major, there may be little or no shortening of the limb, for there is such an extent of surface in the fractured part of the bone, and such a direction of the injury, as are very likely to prevent the kind of displacement which I have specified. In this case you would perceive a crepitus, but the foot would not be turned so much out as in the other example. Fractures of the neck of the femur, on the outside of the capsule, are then not confined to old persons, and generally produced, as I have already stated, by great and direct external violence.

After a fracture of the neck of the femur, it is found that this portion of the bone becomes shortened, being partly absorbed, and the head of the bone taking a situation, as it were, between the two trochanters. This circumstance, having been known by those who were looking out for instances of bony union after fractures of the neck of the thigh-bone, led to a dispute on the subject, because, in consequence of the discovery, that, under circumstances of disease, the neck may be shortened, and the head assume a similar position to that observed after fractures, many examples of what were supposed to be fractures, which had admitted of bony union, were rejected on this ground. Hence, also, various specimens, picked up in churchyards and other places, and whose histories are unknown, should not be too readily considered as proofs of the bony union of a previous fracture; for very similar appearances may be produced by disease. This is illustrated in the preparation, which I now pass round, and in which you see the neck is shortened, and the situation of the head of the bone altered, so as to be brought in contact with the trochanters.

Gentlemen, I have about as much matter to deliver on the remaining fractures of the lower extremity, as will form another lecture with

the remarks, which I have to make on some points, relating to fractures of the neck of the thigh-bone, and their mode of union.

CLINICAL LECTURES,

DELIVERED AT THE

HOTEL DIEU, IN PARIS,

During the Session of 1832–33.

BY BARON DUPUYTREN,

PRINCIPAL SURGEON OF THAT HOSPITAL.

Corrected by himself.

Continued from page 621. *Vol. II.*

PATHOLOGY AND TREATMENT OF BURNS.

GENTLEMEN,—It is worthy of remark, that the characters of the degrees of organic alteration produced by burns, though well marked, are, notwithstanding, in many cases, difficult to be distinguished immediately after the accident; for, while the caloric disorganises the parts on which its action has been most violent, it always gives such a shock to the layers of tissue immediately subjacent, that without being destroyed, they are incapable of supporting the inflammatory action that is developed, and which eventually destroys them. In consequence of this, the greater number of burns prove, after the fall of the eschar, much deeper and larger than they were at first considered. From these facts, we may infer a consequence very important in legal medicine: it is, that in burns of the third degree and upwards, it is almost always necessary, before offering an opinion on their severity, to wait until the eschars have begun to detach themselves, as the extent of the disorder can only then be determined.

Let us now follow M. Dupuytren in his examination of the various phenomena that are observable during the course of these diseases. Each of the degrees we have marked, says the learned professor, according as it occupies a smaller or larger extent of surface, from many circumstances, may be an affection purely local, or constitutional in its effects.

These are the immediate results of the general irritation caused by the action of caloric, or the secondary effects of those periods of inflammatory reaction, suppuration, and exhaustion, that succeed each other in the course of burns, and have been divided into primitive and consecutive accidents. We shall now describe them successively.

The immediate and excruciating pain that necessarily accompanies the action of a concentrated heat on the animal tissue, may be of such intensity as to cause instant death. We have seen some such cases. The encephaletic nervous system is then the seat of violent irritation. The greater number of the phenomena of congestion and engorgement are to be perceived in almost all the organs of the great cavities. This sudden termination most frequently occurs in children and nervous women, more rarely in adults, and scarcely ever in old men. It cannot be attributed either to inflammation or any other disease that the burn had increased; death is caused by the excess of pain. M. Dupuytren thinks that an excessive loss of sensitiveness may destroy, as a very great loss of blood in hemorrhage. The patient is affected by an alternative dreadful state of excitation or of debility, and it is generally in this latter state that he expires. But if the irritation of the cuticle, which is communicated to the nervous system, and consequently to the circulatory, be not so intense as to cause immediate death, other phenomena are to be observed; sometimes an extreme agitation is perceived, also loss of sleep, spasms, convulsions, and intense fever; sometimes the patient falls into a state of stupor and weakness; the pulse is small and quick; the skin cold and pale in those places that have not been exposed to the fire; the respiration is slow; the limbs are motionless, and questions are either unanswered, or the answer is imperfect and slow. This state of exhaustion usually terminates in a speedy death, and sometimes in a general reaction.

When the burn is superficial, and is not beyond the second degree, if it occupies a smaller surface, but especially if the patient is of an irritable habit, we do not observe the formidable symptoms that we have enumerated, but there is a general reaction, very much analogous to the phenomena of erysipelas; the pulse becomes frequent and strong; the skin hot, and the irritation of the digestive organs is perceptible by the redness and dryness of the tongue, thirst, nausea, or vomiting, loss of appetite, &c. These symptoms yield in general to appropriate remedies.

In most cases of severe burns of the third or fourth degree, no remarkable accident occurs during the interval which happens at the occurrence of the injury, and that of the eliminatory process. But at this period, which comes on generally on the fourth day, inflammation is developed with severe pains, according as the lesion occupies parts in which the skin is very thick and more abundantly supplied with nerves and vessels. If it affects large surfaces, all the symptoms of nervous and gastric irritation which we have indicated for a burn of the second degree take place, but with a much greater intensity, and sometimes to such a high degree that death happens.

We have remarked that the patients frequently present great oppression and difficulty of respiration. These phenomena depend on the low condition of the respiratory and circulatory systems, and on a secondary development of an intense bronchic affection or on a considerable pulmonary suffocation.

But this is not all. Patients who are sufficiently fortunate to escape all these accidents have many other dangers to encounter. So often as burns are large and profound, and consequently after the falling off of the eschars,

they cause very extensive wounds, which suppurate so abundantly as to lower the powers of life, inducing an emaciation more or less profound, and finally an incurable marasmus. This period of suppuration in burns is characterised by phenomena similar to those of all chronic diseases.

To the number of serious complications of burns, we are to add erysipelas, and especially diffused phlegmon. All the phenomena which characterise this dangerous disease, and if we cannot arrest its progress, the purulent collections that form, the pus is fused across the cellular tissue in the interstices of organs, vast desquamations of the skin, excessive abundant suppuration, and amputation is the only certain means, does not generally offer but very doubtful of success.

It results, therefore, from these facts, that the cases of extensive burns, not only induce local accidents, but the life of the patient is successively menaced during the four different stages, which M. Dupuytren has designated by the terms, period of irritation, period of inflammation, period of suppuration, and period of exhaustion.

It has been demonstrated by autopsies, that when an individual has perished in a general conflagration, inflammation has not time to be developed in the digestive canal, though in these we find proofs of congestion. Not only does the mucous membrane present red patches, more or less livid and extensive, not only is it injected and engorged with blood, but its cavity contains a quantity of fluid which has escaped by exhalation. The brain is strongly injected with blood, the serosity of the ventricles has acquired a reddish tint, somewhat similar to that found in the pleura, the pericardium, and peritoneum. The bronchiæ also contain a sanguinolent mucosity, their mucous membrane in different points is very red, and there is capillary injection. It seems as if the blood, propelled to the interior by a general and sudden irritation, made an effort, from the influence of the excessive stimulation of the heart and vascular apparatus, to escape from all the free porosities of the internal surfaces.

If some days should have elapsed, if the patient, after having survived the first impression of the fire, should sink from the third to the eight day, in consequence of the violence of the inflammatory reaction, after having presented, during life, all the phenomena of a violent irritation of the viscera, there will be found, on opening the body, all the symptoms of well-marked gastro-enteritis, generally accompanied by inflammatory changes of the brain and lungs. These latter organs are often affected with latent inflammations, which have already been so well described by Stoll, and are the more fatal, as in their commencement they frequently escape the notice of physicians. Finally, if the patient should sink at a more advanced period, during the course of suppuration and exhaustion, there will be found in the viscera, and especially in the digestive system great alterations, which mark the tedious inflammation by which they have been affected; the mucous membrane is studded with red spots more or less vivid, or dark coloured, and ulcerations more or less extensive; the mesenteric glands are generally engorged, &c.

After the exposition we have gone through, you will readily understand, says M. Dupuytren, on what basis the prognosis of the lesions of which we are treating should be founded. It is evident that it should be deduced from their extent, their depth, their situation, from the nature of their cause, from the age, constitution, and temperament of the patient. Thus, a burn caused by poisonous caustic, liable to be absorbed, is more dangerous than any other. Young, sanguine, and vigorous patients are more subject than others to excessive inflammation. A burn, though merely superficial, situated on a part or organ of a delicate tissue, will be more serious than one happening on a less important part, or where it can be more easily resisted, either from the natural structure, or from a disposition acquired by labour or custom. Vesication, rubefaction, and burns of the third degree, leave little or no marks; while those of the fourth degree, which comprehend the entire thickness of the skin, if left unattended to, leave deformed scars and vicious adhesions, especially when they are situated on the face, eyes, neck, hands, and feet, &c., because they present, to the greatest known extent, as has been already mentioned, that tendency that all solutions of continuity of the integuments have, to contract and close by the approximation of their edges. We likewise see the fingers turned on the back of the hand, and adherent to it, the hand completely fixed to the fore-arm, the fore-arm to the arm, the foot variously contorted, forming only a deformed mass adhering to the leg; the head violently drawn to the shoulder, the neck drawn backwards, the chin attached to the sternum, the ears adhering to the corresponding surface of the head, &c.

The mischief produced by burns of the fifth degree are in general extremely fatal; and we can easily understand the reason, when we remember the functions of the organs which they affect. By the destruction of the tendons and muscles, the limb loses the use of its functions; by the thickness of the tissues, which are disorganised, excessive suppuration ensues, and threatens the patient with exhaustion; in placing the bones in contact with the external air, these are rendered liable to mortification; in opening the synovial capsules of the articulations, there is danger of inflammation of these cavities; and if the principal joints are implicated, the most favourable chance for the patient is anchylosis, or amputation of the limb. Proofs of these facts shall be given in the next lecture.

CLINICAL LECTURES

BY DR. MAC ADAM,

Delivered at the South Eastern General Dispensary, Dublin, Session 1832-33.

LECTURE III.

PATHOLOGY AND TREATMENT OF GASTRIC FEVER.

GENTLEMEN,—In a preceding lecture, I detailed to you the symptoms which gastric fever presents, (see page 500 of the London Medical and Surgical Journal,) it now becomes an interesting subject of inquiry to consider the morbid condition of the gastro-intestinal canal, on which the phenomena of the disease depend. The view that I have, for some time past, taken of the nature of the disease is this, that it is a peculiar species of fever connected with, or originating from, a highly excited state of the mucous membrane of the stomach, or intestines, or both, which probably, in many cases, or in all, where it runs its natural course, passes into true inflammation. I am inclined to believe, that, in the early period of the disease, inflammation is not fully established, as I have seen several instances in which all the symptoms subsided so rapidly after the use of suitable remedies, that I could scarcely conceive true inflammation to have existed. This view corresponds essentially with that taken by Dr. Cheyne, who tells us "that gastric fever depends on an excited state of the stomach and intestines, which would seem to have been inflamed, but that this state is by no means identical with true inflammation;" he says, "that after death he found the mucous membrane of the stomach thickened, unusually vascular in many places, of a bright or deep red colour, sometimes with blood effused underneath; the vascularity of this membrane appeared often rather to indicate congestion in the veins than in the arteries, in some cases ulceration and perforation of all the coats of the intestines took place." In most of the cases, which presented the above appearances, inflammation undoubtedly existed, but we should receive the evidence which morbid anatomy affords with some caution, when made use of to explain the nature of a disease; it unquestionably is of great value in exhibiting the effects of morbid actions, but does not invariably demonstrate what the nature of the first morbid actions is, and consequently we are not always justified in concluding that inflammation is essential to any given affection, merely because marks of inflammatory action are frequently discovered after death. Inflammation I would be disposed to consider as a frequent effect, though not absolutely present in every case of this disease; perhaps, in the present state of our knowledge we are not warranted in speculating farther on its pathology.

With respect to the remote cause, I have no hesitation in tracing it to an epidemic influence which has prevailed in Dublin, according to Dr. Cheyne, since the year 1826, and which, though diminished in its power since the appearance of cholera, still exists to a certain degree, and in some cases seems to blend itself with this scourge. I have before alluded to the subject of epidemics, and therefore think it superfluous to say more on this point. Contagion has been supposed to give origin to this fever; in some few instances I have suspected its existence, and before I perused Dr. Cheyne's essay on this subject, I had come nearly to the same conclusion that he has, "that it is sometimes infectious and sometimes not." I have seen a great many insulated cases of gastric fever, which there was no reason to suppose originated from contagion, nor were any of the families of the patients affected, but I recollect having seen several members of two families, who were in constant communication with each other, become attacked in succession, and the mother of the two children, whose cases I lately alluded to, showed evident symptoms of the disease in a slight degree.

Dr. Cheyne mentions several instances of the extension of the disease in families, which occurred under his observation during the winters of 1830 and 1831, and which seemed to confirm the opinion of its being occasionally contagious. It appears to me that gastric fever in this respect resembles several other diseases, not essentially contagious in their nature, but which, under certain circumstances, and at certain times, assume this property; such is the case, not only with the disease under consideration, but also with dysentery, catarrh, erysipelas, and several others, and more particularly with cholera: this view of the subject explains many apparently irreconcilable phenomena, and appears on the whole more conformable with sound observation.

I shall now proceed to detail the treatment which I have found most efficacious, and which, when early adopted, has been almost invariably successful. When considerable pain, or epigastric soreness on pressure is present, the local abstraction of blood by means of leeches, repeated until those symptoms are subdued, and followed by fomentations, continued for some time, is of the first importance. In dispensary practice, where economy ought to be considered, I have seldom ordered more than ten or twelve at a time; but as much blood may be obtained by this number, if carefully applied, and if succeeded by the diligent application of clothes wrung out of hot water, as would be by a much greater number without such assistance. When the pain and pyrectic symptoms have been relieved by such means, and some soreness on pressure of epigastrium still remaining, a blister is often useful. Even in cases unaccompanied by epigastric soreness or pain, but in which the existence of this affection was inferred from other

symptoms, I have found one application of leeches almost cut short the disease in a day; and I have been agreeably surprised to see my patient the next day with the fever abated, thirst and irritability of stomach relieved, and tongue clearer. These means, with saline draughts occasionally, strict abstinence, and, if the bowels are confined, a mild aperient or emollient enema, are generally all that is necessary for the first few days. After having reduced the inflammatory excitement, my next object has been to allay the irritability of the mucous surface, restore the secretions to a natural state, and relieve urgent symptoms. The two first indications I have found best accomplished by small doses of some mild mercurial combined with an anodyne, such as the hydrarg. c. creta, with rhubarb and Dover's powders, if the bowels are relaxed; and the two latter medicines, with the hydrarg. c. magnesia, when constipation existed. When the stomach was very irritable, I have been in the habit of using either of the above mercurials, with the pulv. corn. ust. c. opio, instead of the Dover's powder. If aperients were necessary, in addition to these remedies, small doses of castor oil, with a few drops of the tinct. opii will be found useful; but if the stomach was irritable, and incapable of retaining the oil, I have found the most satisfactory result from gr. x. or gr. xii. of the magnes. cal., taken in one effervescing draught with carb. potass. and lemon juice, and repeated every three or four hours till an effect was produced. This combination in general allayed the irritability of the stomach, and proved mildly laxative. If the patient suffered much from want of sleep and restlessness, the ext. opii aquos. gr. i. or gr. i ½ doses, either alone or combined with a few grains of the pil. hydrarg. may begin with advantage, followed next morning by a mild enema, or the magnesia in the form above recommended. If diarrhœa supervenes, the Dover's or the opiate powders, in combination with the pulv. cret. comp. and the hydrarg. c. creta, or small doses of ex. opii and pil. hydrarg. will generally check it. An opiate enema may also sometimes be useful, given in a few ounces of mucilage of starch, especially if tenesmus and bloody stools are present. The affection of the throat does not appear to me of much practical importance; I have never seen it followed by ulceration or sloughing, and it is only productive of temporary annoyance. In this case a borax gargle is useful; and afterwards, when the white crust has disappeared, and the palate and throat appear to be in a relaxed state, a gargle of alum, or one composed of sulphuric acid in decoction of cinchona, will often be found useful.

During the whole course of the disease, the strictest regimen ought to be observed while the pyrectic and local symptoms continue urgent; no animal food or stimulant drink should be allowed, barley or rice water, and perhaps a little arrow-root or any mild farinaceous substance may be used, and grapes, oranges, or lemonade, taken in small quantities, occasionally, will be found useful in allaying the thirst and febrile heat. When fever and all urgent symptoms have subsided, and nothing but a little epigastric tenderness and debility remain, weak chicken broth, or beef-tea, may be allowed. In this stage of the disease I have derived advantage from the light bitter infusions, beginning with the decoction of Iceland moss, and afterwards the infus. calumb., with a small quantity of the tincture, occasionally exhibiting aperient draughts of rhubarb and magnesia; or I have used minute doses of the subnitrate of bismuth, combined with the compound powder of tragacanth and rhubarb, with the effect of restoring tone to the digestive organs, and improving the general health.

I need scarcely add, that all emetics, active purgatives, antimonials, and stimulant medicine, are highly injurious; I have seen one dose of salts and senna do much harm; even the medicines that I have recommended require to be used at first in small doses, and their effects very carefully observed.

Such is the plan of treatment that after some experience of the disease I have found most successful, and I have seldom been disappointed in the result. I am aware that I may appear to some to have recommended more medical interference than the nature of this affection seems to justify; and that high authority has pronounced *, "that there are many cases in which nothing can be done by the physician but to ascertain at each successive visit that there is no aggravation of any of the symptoms of the disease." That such a negative treatment may be most judicious in some individual cases I admit; patients will be occasionally met with on whom medicine even in small doses exerts too powerful an influence. Dr. Cheyne recites a case in which rhubarb, even in a few grains, produced numerous fluid stools, and a few grains of Dover's powders occasioned profuse perspiration; but as far as my experience goes, these instances are exceptions to the general rule, and I feel satisfied that the inert treatment, or rather the abstaining from all internal medicine, so much recommended by the French physicians in affections of this nature, is inconsistent with reason and sound observation. That its indiscriminate adoption causes the disease to be protracted, the patient's life endangered in many instances, and that it is only productive of this good effect, that it gives these ingenious and industrious observers more frequent opportunities of improving their knowledge of the pathology of the disease, by affording them abundant autopsies.

I have now concluded the few observations which I was prepared to make on this interesting subject. If I have appeared presump-

* Dr. Cheyne, Cyclopædia of Medicine.

tuous in at all differing, in the treatment I have recommended, from physicians of deservedly high reputation, I have only to plead in excuse, that it has appeared to me equally contrary to reason, analogy, and my individual experience, to abstain from the application of medicines to an excited or inflamed mucous surface, merely because it belonged to the stomach or intestines; that in cynanche, opthalmia, and other affections, we are in the habit of applying our remedies directly to the part inflamed, with the best effects; that in gastric fever there is an additional reason for this practice, as the restoration of the diseased or suspended secretions of the abdominal viscera, is of the greatest importance, not only for the relief of the local affection, but also for the re-establishment of the general health; and especially I must beg leave to urge this consideration, that in medical as in other scientific pursuits, truth should be our sole object, and that this sublime end is best obtained by emancipating the mind from the shackles of authority, however exalted; by reading nature attentively for ourselves, and drawing our conclusions from the phenomena which she presents; by comparing these results with the opinions of the masters of our art; and when we find a discordance between what we observe and what they have taught, we ought, nevertheless, to state our own convictions honestly, preserve our understanding unbiassed either by the influence of distinguished names or by attachment to our own opinions, pursue our inquiries with diligence, and endeavour to ascertain whether a more extended experience will confirm or correct the conclusions which we formed at a more early period of our investigations.

ABUSES IN THE PRESENT MODE OF ELECTING MEDICAL OFFICERS IN HOSPITALS AND DISPENSARIES.

THE following independent remonstrance, addressed to the governors of one of the dispensaries, deserves the praise of the profession, and we trust it will be generally adopted throughout the country, as the evils against which it is directed exist in most of our hospitals, dispensaries, and public institutions.

To the Governors of the General Dispensary, 36, Aldersgate-street.

The undersigned, the physicians and surgeons of the General Dispensary, beg leave earnestly to call the attention of the subscribers at large to a proposal that has recently been made for altering, in a most important point, the existing law, as regards the mode of election of the officers of the institution, which alteration, if finally adopted, will, in their opinion, have the effect of lessening materially the respectability and usefulness of the charity, as well as proving ultimately injurious to its pecuniary interests.

At a late general quarterly meeting of the governors of the dispensary, held on the 12th of June last, a report of a sub-committee, previously appointed to revise the rules and regulations of the institution, was submitted for consideration and approval, in which it was proposed, that in the 23rd rule, which at present stands thus, "that no person can vote at any election, who has not been a governor for six months previous to the day of election," the following alteration should take place, viz. that the words "six months" be omitted, and that the words "three days" be substituted.

It is quite evident, that the tendency of this alteration is to deprive the existing governors of the power of choosing their own officers, and of placing it in the hands of any candidate, whose purse, or that of his friends, enables him at the moment of election, to create a majority of votes, whether real or fictitious. It also exposes the institution to the risk of having persons thrust into its most important offices, the duties of which they may be incompetent to discharge, or be otherwise unfit for; while in the same degree it tends to the exclusion of candidates of the highest attainments, provided their pecuniary means are not adequate to support an expensive and, perhaps to them, ruinous contest. Further, such a mode of election is calculated to excite the most rancorous party feelings among the governors, ending, as has often been the case, in the retirement in disgust of many of the oldest and most respectable friends of the institution.

The plea, made in favour of the proposed measure, is its tendency to add to the pecuniary resources of the institution, by exciting a money con-

test between the rival candidates, the result of the contest being thus made to depend upon the number of votes, real or fictitious, created for the occasion, each guinea so subscribed giving the party, or his proxy, the right of voting at such election. Such, in fact, was the state of the law at the first foundation of the dispensary, and which continued in force for several years afterwards; and on two or three memorable occasions, the election was decided entirely by such means, at an enormous and even ruinous expense to both the successful and unsuccessful candidate.

The obviously unjust and impolitic nature of this mode of conducting the elections, induced the medical officers, about seven years ago, to appeal to the governors at large upon the subject, who, after an ample discussion of the matter, decided, almost unanimously, that no fictitious or money votes, created at the moment of election, should be allowed, but that, for the future, all votes should be of at least six months' standing, prior to the day of election. This has continued to be the state of the law up to the present period; and under its operation the institution has steadily flourished; its funds have been regularly increasing, so as to be more than adequate to its expenditure, although this has been conducted by the committee in the most liberal manner; while it is fair to presume, at the same time, that all the most important purposes of the institution have been answered, both to the satisfaction of the governors at large and to the benefit of the poor objects of the charity.

It is, therefore, for the governors of the dispensary to determine how far such a state of things is worthy their continued support, or whether they will give their sanction to a principle liable to such serious objections, and which, above all, exposes the institution to the risk of having its most important offices filled by persons incompetent, or otherwise unfit for their situations. It should not be lost sight of, that the primary and most important object of the institution, is not the accumulation of wealth, but the providing the best medical and surgical assistance for the poor, when suffering from disease or accident, an object to which pecuniary considerations are, or ought to be, secondary or subservient.

The undersigned, in submitting these considerations to the governors at large, earnestly request their personal attendance at the special general meeting, to be held at the Dispensary, on Wednesday next, the 10th inst., at 12 o'clock precisely, for the purpose of either confirming or annulling the proposition for altering the law, as above described.

GEORGE BIRKBECK,
Consulting Physician.
H. CLUTTERBUCK,
WILLIAM LAMBE,
C. J. ROBERTS,
Physicians.
FREDERICK SALMON,
WILLIAM COULSON,
Surgeons.

General Dispensary,
36, *Aldersgate-street,*
July 4, 1833.

ON DR. ABERCOMBIE'S VIEWS ON THE BRAIN.

BY SCOTUS.

THE other day, in looking over some old numbers of the Edinburgh Medical and Surgical Journal, it occurred to me that though the history of medicine presents many strange notions, yet it would be difficult to find one more remarkable than the following, which there constitutes the basis of an essay on apoplexy, by Dr. Abercrombie, of Edinburgh, that staunch supporter of cholera contagion, &c.

"Suppose," says the doctor, "an artery and a vein running side by side in a non-elastic canal, which they exactly fill, *it is probable that the circulation in the vein will be very much affected by the condition of the artery.* While the *quantity of blood* in the artery is *in the natural and*

healthy state, the circulation *will go on* in a healthy manner. But if, in connexion with a plethoric state of the system THE QUANTITY OF BLOOD IN THE ARTERY BE MUCH INCREASED, *the first effect will be* A CERTAIN ENLARGEMENT OF THE ARTERY. If the vein increased in the same ratio, the circulation would still go on without interruption; but the canal, in which the vessels run, and which they exactly fill, is, by the supposition, unyielding, consequently the vein cannot be enlarged; on the contrary, the immediate effect of the enlargement of the artery will be a certain compression of the vein, and a certain interruption of its circulation. THIS INTERRUPTION, indeed, WILL ONLY TAKE PLACE DURING THE CONTRACTION OF THE HEART, and consequent dilatation of the artery; when the artery contracts, it will be removed; but hence will arise an *unnatural* state of the circulation, which will very much affect the functions of the organ in which it occurs. *The degree of it* will vary in different cases, according to *the extent of the cause* on which it depends; and it is easy to conceive it existing in such a degree, that the natural state of the circulation is entirely suspended, or, in other words, in such a degree, that MORE BLOOD ENTERS BY THE ARTERY THAN CAN BE TRANSMITTED BY THE VEIN."

Here we have a conjecture, glaringly useless, and expressed in most unphilosophical language. What can be worse than such phrases as "*the natural and healthy state of a quantity,*" "*the circulation will go,*" "*a degree of a state,*" or the extent of a cause?" We would advise the author, before he writes again, to study, at least, the elements of metaphysics.

If "*the quantity of blood in an artery is much increased,*" the vessel must be enlarged. It may be so, "especially during the contraction of the heart;" but to say it is "*only*" then, is a manifest contradiction in the doctor's own statement. Blemishes of this kind occur so frequently in our author's pages, that we would never have mentioned the conjecture, had it not been for its curious application. "In this hypothetical case," he continues, "I have supposed that the artery and the vein exactly fill an unyielding canal, which, when the artery is enlarged by plethora, prevents a corresponding enlargement of the vein. The case will not be altered if we suppose that they run in A CAVITY which they do not fill, but the remainder of which is exactly FILLED BY AN INELASTIC SUBSTANCE. NOW THIS, I CONCEIVE, IS NO HYPOTHETICAL CASE, BUT THE PRECISE CONDITION OF THE BLOOD-VESSELS OF THE BRAIN. These vessels are inclosed in a cavity formed by the bones of the cranium, and the remainder of the cavity is exactly filled by an unelastic substance,—the brain. *They cannot therefore admit of much increase* of the quantity of blood which enters them, WITHOUT DERANGING THE CIRCULATION IN THE MANNER WHICH I HAVE SUPPOSED."

This is beautiful.—It shows some misconception of the anatomy of the brain, and hence we learn how to value this author's pathological investigations. It shows, I say, some misconception of the anatomy of the brain; because, as every one ought to know who has attended a single course of anatomical lectures, *the veins do not accompany the arteries in that viscus.* How, therefore, can "an increase of the quantity of blood, which enters the arteries, derange the circulation as *he has supposed?*" When men, by whatever means, obtain a name, it is an ungracious duty to question their dicta, though it may be very beneficial to the community.

A favourite dogma with our author is, that apoplexy does not depend on an increased quantity of blood in the brain; aye, even though according to his own conjecture, "*more blood enters by the artery than can be transmitted by the vein*;" and even though *the increase of the quantity of blood which enters the brain deranges the*

circulation in the manner he has supposed. It is not only of anatomy but also of physiology and of natural philosophy that a mistake is evinced in these few lines. How could the quantity of blood increase, if the cranium is exactly filled by vessels, and by an inelastic substance? And if the interior of the cranium is thus exactly filled, how could the movements of the brain take place?

Some of the ablest physiologists and physicians do not assent to these views, and think their adoption might be productive of serious injury in the treatment of disease.

It is contended that this hypothesis is not without practical value,—"*The peculiar situation of the blood-vessels of the brain,*" he continues, "which I HAVE SUPPOSED under this article, *lies at the root of the whole pathology of apoplexy.*"

One should be cautious where people's lives are concerned. We think, therefore, that instead of trusting so much to SUPPOSITIONS, the doctor ought to have more carefully considered the relative position of the parts of the encephalon.

Some medical men consider this vision as an important discovery, which certainly enhances it as a medical curiosity.

Edinburgh.

REPORT OF THE ROYAL COLLEGE OF SURGEONS.

WE are extremely happy to observe that the House of Commons have acted on our suggestions, and have determined to inquire into the state of the medical profession in these countries. We rejoice that the new Apothecaries' Bill is deferred until next session of Parliament; as Mr. Warburton is determined to expose medical abuses. We insert the following document with great pleasure; and anxiously expect that the College of Physicians will be placed in a similar situation as our friends in Lincoln's-Inn-Fields.

"An account of the number of persons who have obtained diplomas from the Royal College of Surgeons in London, in each year, from the 1st of January, 1823, to the 31st of December, 1832; also, of the number of persons who were examined and rejected in the same period.

In the Year	Number of Persons who obtained the Diploma of the College.
1823	295
1824	291
1825	340
1826	366
1827	467
1828	384
1829	470
1830	481
1831	406
1832	402
	3902

In the Year	Number of Persons who were examined for the Diploma of the College and rejected.
1823	30
1824	26
1825	25
1826	30
1827	35
1828	32
1829	29
1830	20
1831	35
1832	25
	287

EDM. BELFOUR.
Secretary to the College.

REMARKABLE CASE OF DEFORMITY, TREATED SUCCESSFULLY BY DR. HARRISON.

SARAH HAWKES, now in the 14th year of her age, is small, and of delicate constitution. She (at present *) is afflicted with a most extraordinary, and, probably, even singular contortion of figure, amounting to almost the highest degree of deformity. The

* November 13th, 1831.

inferior extremities have lost the power of motion entirely, while, at the same time, their sensibility is morbidly increased. The toes are turned inwards, and press upon the soles of the feet, with such firmness that they cannot be moved, even by considerable force; the nails not having been properly cut from the commencement of the ailment, and not at all for these last three months, in consequence of her being unable to bear the handling of them for that purpose. The hip, knee, and ankle joints are stiff and immovable, the knees and ankles resting firmly upon each other respectively; the right arm is lodged between the thighs, with the hand turned upwards. In this manner it has been confined during the last two years. Her trunk and lower extremities are retroverted to such a degree that the feet rise above the left shoulder, and can there be laid hold of by the patient with her left hand. The fore part of the trunk and the inferior extremities describe together more than three quarters of a circle. The fore part of the crest of the right ilium actually passes five or six inches under the edge of the sternum. The right buttock is forced under the scapula of the sternum. The middle of the spinal column presents the shape of a horse-shoe, with the toe slanting upwards, and the heels turned into the right flank. In this strange and distressing position the patient is obliged constantly to remain, having lived, for the last two years, entirely upon milk, and the pulpy parts of fruit, either fresh or dry. The pulse is feeble; appetite languid; respiration always difficult, but more so when the atmosphere is moist, or any one stands near the bed. Her voice is weak, and the utterance of a few words exhausts her. The right cheek and arm of the same side frequently assume a blackish hue simultaneously, and on these occasions breathing becomes so laborious and irregular that death is expected every moment; and not only so, but sometimes appears to have actually taken place. Her breath emits at all times a disagreeable odour: the heart also appears to be raised considerably from its usual site, and frequently palpitates, conveying a very uneasy sensation, which she herself describes as a violent fluttering in the upper region of the chest.

On account of the awkwardness of her posture the urine is necessarily received upon folded cloths; and she is frequently called to void it. This fluid is very offensive; she knows, however, when it escapes, and can, for a few seconds, retain it.

The fæces are discharged involuntarily and unconsciously, upon the right cheek; and, if not prevented by interference, would glide to the mouth, the head being fixed immovably to the sternum. The evacuations are always dark and fœtid—when solid, they are of a large size, being retained longer than usual, in consequence of the sluggish action and insensibility of the rectum.

She herself accounts for the origin of this distortion from the circumstance of having received a blow on the neck from the fist of another person, of so violent a description as to drive her over a form; when she fell down in a fainting fit. On recovering her senses, and attempting to eat her dinner, she was alarmed at finding a difficulty in swallowing, and by perceiving an unusual lump in her throat —both of which still remain. In the front the lump is very conspicuous, and nearly the size of a pullet's egg cut in two lengthways. The posterior surface is uneven; but there is a particular indentation in the lower part. The cervical vertebræ are huddled together, forming an irregular tumour. By these subluxations, or misplacements (which will be more particularly adverted to hereafter), the chin is pushed over to the left, and made to rest continually upon the chest.

In little more than a week after the violence alluded to, five or six fits of a similar nature were experienced. Soon after the first she had cold and

hot pains in the loins, and lameness in the right hip. These continuing to increase, she was compelled, after several ineffectual struggles, to confine herself to bed; that is to say, on August 8th, 1828, and never since that period has she been able to rise. About five weeks after she was thus confined, she was visited with a peculiar and indescribable sound in her back and head, resembling the cracking of the fingers, or the snapping of a stick, the report being distinctly perceptible in the room below that which she occupied. It began at the bottom of the spine, ascending rapidly to the lower part of the neck, accompanied by increase of heat through its course; this was again, however, quickly followed by cold in the same parts. Arrived at the neck, the noise was there loudest; and the cause apparently struck into the lump within the throat.

At this epoch the right arm became violently agitated; the left was suddenly drawn back, with the fingers bent and stiff; the eyelids opened and shut in quick succession; vision became indistinct, and the voice failed. The chin was forced upon the breast with strong convulsions, while the mouth remained wide open. After the pause of a few seconds, the snappings darted again into the back of the neck; now ascending to the top of the head, where they suddenly stopped, making, at the time of their cessation, an unusually strong report. The mother of Sarah Hawkes described the course of these noises with the greater confidence, because at night she lay with her head close to that of her child, in order the better to observe and trace the order and movements of this singular phenomenon. When the noise reached the head, it was accompanied by greater heat than elsewhere (perceptible to other persons besides the patient), and a greater degree of cold invariably succeeded. The vertex and sides of the head were also, for a short time afterwards, so benumbed and insensible, that she could not feel a smart stroke or pinch inflicted upon any part of them.

In this way the rattling continued, incessantly harassing the poor girl for more than a month; at the end of which it entirely ceased. On first hearing the sounds (and for some time afterwards) her mother was so fully convinced of their proceeding directly from the ribs, or vertebræ rubbing against each other, that she frequently turned the child, expecting to see an evident movement in some particular part, and thus ascertain the exact spot whence the noise proceeded: but these examinations always ended in disappointment; for neither she nor any other person, after bestowing the greatest care and vigilance, could perceive the slightest disturbance, either in the spine or ribs. Both were, at all times, tranquil. No unusual motion could be observed or felt, although the crackling was audible enough, and, apparently, confined to a particular spot, to which eyes and fingers were both directed.

This perplexing symptom had scarcely taken its departure, before she became constipated in her bowels. During twenty-nine successive days no alvine evacuation took place; the belly became exceedingly swollen, and was very painful, while there was a remarkable glistening of the integuments. About the same time she was attacked with frequent spasms in the face, eyes, and right hand, but most of all in the mouth; the chin being now drawn down upon the sternum, where it remained fixed for fifteen weeks and three days. During this period she lay speechless, with her mouth continually open, excepting when forcibly closed with a bandage. It at last suddenly and spontaneously shut; and in the course of an hour she was able to speak a few words.

This attack was scarcely over, before the body, and, after it, the limbs began to bend backwards, but there was no return of the fits, cramps, or spasms. Her deformity continuing,

however, to increase, attained its present magnitude, which, in fact, it acquired within the first three months. From that time matters have remained nearly stationary; and during the whole period, in spite of her melancholy and helpless situation, the general health has remained unimpaired, with the exceptions already mentioned. In the course of her confinement she was bled repeatedly in the arm, and had setons, issues, blisters, and leeches successively applied to different parts of the back; but neither they, nor any of the routine means usually employed, at all relieved the symptoms, or retarded the progress of the complaint.

Before she left her native place (*Dunmow*) she was examined by not less than forty medical men, some of whom went from the metropolis, and from more distant places, for the purpose; she had removed to London, and had been exhibited there upwards of a month before I heard of her. The object of this journey was, partly to obtain alms, but chiefly to procure, if possible, some alleviation of her afflictions, through the benevolent exertions of the faculty. An amiable young lady, whose figure I had restored (by which means she had been rescued from pulmonary consumption) called to inform me of Sarah Hawkes, and desired me to "visit the poor girl, as an object of compassion and wonder;" not having the slightest idea that any relief could be administered. A few days after I had attended to her request, she called again upon the girl; and, observing the hand already at liberty, and seeing that considerable benefit had been obtained in other respects, she wrote to me as follows:—

"I went to-day (Nov. 22nd) to visit little Sally Hawkes, and was much pleased, as well as gratified, to find the extraordinary improvement in her. I will not say surprised, after having received so much benefit myself from your skill." * * *

Nov. 15th, 1831.—Upon this day I commenced the treatment, by thrusting folds of soft linen between the knees and ankles, in order to separate them from each other. On the day following I could stir the arm a little. Upon the 19th, the limbs being considerably parted, I had the pleasure of removing the arm from its long imprisonment; but so great was the pain, upon taking it from its confined situation, for a few minutes only, that she urgently desired to have it replaced. Having disengaged the arm, I directed my attention to the back, in order to ascertain the extent of the deformity, and devise appropriate means of treatment. Upon turning her over, for this purpose, I found great irregularities in all the cervical vertebræ. One of the lower was driven forward, leaving an evident hollow behind. These discoveries being made, I resolved upon stretching the neck, hoping by this measure to replace all the vertebræ; and success justified my most sanguine expectations; the experiment leading to the immediate restoration of the natural state and appearance of the neck.

Frictions, from the first, were almost continually applied to the arm and scapula; in which parts the power of motion was rapidly increased; and on the 22nd (seven days only from the beginning of my interference), the arm was finally released, and restored to perfect liberty; and, though it is yet weak, she can move it in every direction, as well as the other.

Nov. 24th.—Sarah Hawkes was this morning carried from her bed (where she had lain, without removal, curved in her body and limbs, as described, for more than three years;) and, soon after the removal, she threaded a needle with her right hand.

27th.—She has been turned upon her face for the three last days, in order to permit a sketch to be taken of her back, as well as to have it and the cervical vertebræ well rubbed. In this posture she remained for six or eight minutes, the first time, and has borne the change better upon every repetition. The tumour of the cervical vertebræ on the outside, is entirely

reduced, and the neck sensibly elongated. She now swallows with ease, and says that the lump, which she had felt in her throat, from the time of receiving the blow, has quite subsided, since the extension of her neck yesterday the 26th.

30th. Has eaten two boiled eggs, and bread and butter several times, with great pleasure.

A shield* was yesterday forenoon placed upon the back, and confined *in situ* by means of a pair of stays. The unnatural and unsightly hollow of the back was filled up (almost entirely) with linen and tow. She wore the shield till I removed it this morning. The hollow of the back is already diminished, and the front of the body is straighter. The *longissimus dorsi* and *sacro-lumbalis* of the left are driven sideways by the curved spine, and considerably raised, especially in the loins; but there is so much tenderness in the spinal region, and over the back in general, that the slightest touch gives considerable pain.

Dec. 8th. Since last report she is, in every respect, much better. She can now move freely every large joint of the lower extremities, and, to a considerable extent, in whatever position she may be lying. The right arm and hand have, for several days, been quite well, and the protuberance in the left side of the belly is nearly gone. The hollowness in the loins is also much lessened, and the muscular enlargement on the left side of the spine has almost disappeared. The tenderness of the back too has nearly subsided, for she can now bear to have it smartly rubbed for a considerable time, and even derives a pleasure from the operation. She is in good health, is more plump, and generally much improved in appearance; sleeps well, and swallows with perfect ease. Her diet is usually *tea* for breakfast with bread and butter. *Mutton chops* or other *animal food, with potatoes and bread*, for dinner. She takes *tea and toast* in the afternoon, and her supper consists of *sago* or *tapioca*, with a small quantity of white wine.

Dec. 20th. The patient is, in every respect, better: the limbs have freer action, and the fore part of the trunk exhibits but little deformity. The lumbar hollow is also reduced; the muscular enlargement is nearly gone; and the only tenderness remaining is over the eighth dorsal vertebra, where the seton was placed. This was kept open seven weeks, and then dried up, without having afforded any relief.

Jan. 10th, 1832. She daily improves—has the proper feeling, and free use of all her limbs. The right arm has, for some time, recovered its natural strength; but though the lower limbs are active, they are still weak. The only defect remaining in her back, is a slight curvature in the lower dorsal and upper lumbar portions of the spine, with a slight hollowness in the left loin.

Feb. 12. Her health continues excellent; she sleeps well, and increases in flesh. The slight remaining curvature is confined to the three inferior dorsal vertebræ, which were formerly the most distorted. The feet have recovered, and to all appearance have regained sufficient strength to sustain the whole weight of her body; though the right, which was always the weaker, is still more infirm than the other.

May 8th. Of late there has been no perceptible difference, either in the strength or the activity of her limbs. Attention has, therefore, been chiefly directed to the vertebræ, as mentioned in last report. Two have,

* What I call the *shield* is a piece of thin deal, glued to leather on the inside, and stuffed with soft materials. It is constructed of various forms and sizes, to suit every species of deformity. In the present instance, it was twelve inches long, and seven broad; of a long oval figure, extending from the nape of the neck, and resting on the nates. Several longitudinal incisions were made through the wood on each side, the better to adapt it to the shape of the back and sides. The shield being firmly secured by a pair of strong stays, the patient was turned and replaced, as well as possible, upon her back.

for some time, been wholly replaced; but the middle one, which formed the top of the præternatural arch, having still resisted the means employed, and continued a little out of the line, a small piece of wood, grooved in such a manner as to prevent it from slipping, was placed on the right side of the spinous process, in opposition to, and close connexion with, it. Thus secured, the vertebra was compelled to enter the column, and was restored to its natural situation. On removing the apparatus it was found undisturbed; but slipped back again immediately. In order, therefore, to confine it more effectually, a smaller shield, made of the same materials, was placed upon the most obstinate vertebra, and firmly bound there by an elastic wollen belt, which kept it tight and firm at all times. Under this treatment the recession daily became less, and the replacement easier, rectification proceeding until the bone resumed its proper and permanent place in the spinal column.

July 24th. Since last report the vertebræ have remained stationary. The spinal column has also been repeatedly examined, both before she left the crib and after returning to it, by experienced practitioners, several of whom were entire strangers to me, and declared to be perfect. Sarah continues to enjoy excellent health. She has walked for a few minutes in her room six different times, at intervals of a week. She has the unrestrained use of her lower extremities, moving them freely in every direction, both in bed, and while on foot. They are so weak, especially about the knees and ankles, that she requires, in walking, to be supported by a person on each side. The whole of the right limb is found, upon placing her weight there, to be more infirm than its fellow. She had not even attempted the erect posture for upwards of four years, when she first arose from the couch. The change of posture induced giddiness, with a disposition to faint, but she has continued longer erect, and borne each trial better than the former.

She has lately increased in stature, and so much in thickness, that her stays required to be enlarged several inches in width.

Nov. 29th. She has been gradually advancing in strength and activity since the date of the last report; and is now perfect in her figure, health, and every other particular. The right lower extremity has also recovered its natural vigour. She continues to walk about her room, without inconvenience, at short intervals.

DISCHARGE OF WORMS FROM VARIOUS PARTS OF THE BODY.

John Alexander, aged 10 years, was for nearly a year in a delicate state of health; although his appetite continued pretty good, he had much wasting of flesh and general debility. About eight months since, a tumour arose over the epigastrium, which, after being poulticed for some days, burst, and discharged, with about two ounces of pus, a white worm half an inch long. In a few days the abscess healed. Eight or ten days afterwards a second tumour arose about three inches distant from the first, on the right side of the chest, which, after some days, also burst and gave exit to another worm.

It is needless to particularise the different instances, suffice it to say, from the time of the first worm being discharged, until I first saw him, which was an interval of two months, five worms had made their appearance. They were all similar to the first, and lived for a few hours after their discharge. When I saw him, the integuments of the right cheek and eye were excessively swollen; and in the course of a few days another worm was discharged from the upper eye-lid. I recommended different medicines for the space of six weeks; but the formation of abscesses on different parts of the trunk and extremities proceeded, and altogether

about twenty worms were discharged, principally from the right side. At length, two grains of calomel were given every night, until the gums became affected, and convalescence shortly afterwards took place, I shall not pretend to say whether from mercurial influence, or from the produce of the original nidus having been exhausted. The boy has now been, for nearly three months, quite well, his health and strength being completely re-established. The worms appeared to be ascarides. None were, however, at any time observed to be discharged from the intestines, nor were the bowels irregularly affected.

I cannot account for their formation; whether the first deposition of eggs had been made by some means under the external skin, or whether a worm had perforated the intestines, and at length made its way to the surface. I incline to the latter opinion, from the boy's previous ill health. I could in a few instances trace a reddish line from one abscess to the other; this was, however, after the new abscess appeared. The patient himself felt no uneasiness in the part, nor had he any idea where the next abscess would form until it appeared externally.—*Extract of a Letter from Mr. C. Neilson, of Killala.—Medico-Chirurgical Review, July.*

[A lady, upon whose veracity we place the utmost reliance, lately assured us, that she frequently observed flat worms crawling from the mouth of a child of ten years of age. Several came from the rectum daily, while the child was rehearsing her lessons. There are many curious cases of this kind upon record.—Eds.]

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The meeting for this year took place at Cambridge, and was attended by the principal scientific characters of Great Britain. We understand that the number amounted to six hundred. The next meeting will take place at Edinburgh.

MEDICAL HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

At the annual competition of the "Clinical Practising Pupils" of the medical department of this institution for 1833, the following gentlemen obtained prizes:—

First Prize . .	Mr. Power.
Second do. . .	Mr. Martin.
Third do. . .	Mr. Cass.
Fourth do. . .	Mr. Lees.

Two extra prizes were also awarded. One which was proposed by Dr. Graves, for the best Essay on the Medicinal effects of Acids and Alkalies, was obtained by Mr. Roe. The other, entitled "the Stethoscopic Prize," proposed by Dr. Stokes, was obtained by Mr. Hudson, after a public examination of the candidates, on the diseases of the chest and use of the stethoscope.

BUST OF THE LATE DR. BABINGTON.

We have seen a most correct likeness of the late Dr. Babington, copied in wax by Mr. Rivers, Derby Road, Kingsland, from the bust by Mr. Behnes. Those who have the busts of Sir Astley Cooper and Mr. Abernethy, will be gratified in being able to add that of their revered and benevolent contemporary, than whom there was no greater ornament to the profession.

TOTAL MORTALITY IN FRANCE FROM CHOLERA.

It appears from official report, that from the first appearance of cholera at Calais on the 15th of March, 1832, to the 1st of January, 1833, 230,000 persons, military excepted, were attacked, and the number of deaths was 95,000.

THE

London Medical & Surgical Journal

Saturday, July 13, 1833.

POSTPONEMENT OF THE APOTHECARIES' BILL.

We announced in our last that the amended Apothecaries' Bill was postponed until next session of parliament, as the respective supporters of the Edinburgh and London Colleges of Surgeons, and of the Apothecaries' Company, could not agree to any terms in the committee. The Lord Advocate wished to have the original bill, the supporters of the London College the amended one, and the friends of the apothecaries more evidence, though the committee had decided on Monday last, not to receive further evidence. The committee having obtained leave on Tuesday evening to report specially, accordingly reported as follows:—

"That before any bill, to amend the laws for regulating the practice of apothecaries throughout England and Wales, shall be passed into a law, it is desirable to inquire more fully into the subject than can be effectually done during the present sesion of parliament."

Mr. Warburton has given notice, early next session, for a "Committee to inquire into the laws and regulations affecting the education and practice of the members of the medical and surgical professions in the three kingdoms."

When the committee met on Monday, the following paper, a copy of which we have obtained with a good deal of difficulty, was laid before each member. It made a powerful impression, and had it been received at the former meeting, some of the committee acknowledged, a different result of their labours might have taken place. We have reason to know, that there never was more hocus pocus attempted to be carried on than by this committee, and we promise to give an account of it at the end of the session, for at present there are such persons as a Sergeant-at-Arms, a Speaker with an awful wig, and such a place as Newgate. The memoranda were first attributed either to the Master of the Apothecaries' Company, or to the President of the Royal College, but they were thought much too radical for the chiefs of these two tory corporate bodies, and they were finally supposed to be the production of the learned member for Middlesex. Whoever the author may be the thanks of the sufferers in our profession are eminently due to him.

"*Memoranda submitted to the Select Committee of the House of Commons on the Apothecaries' Bill.* By an Old Apothecary.

"By the old Apothecaries' Act no doctor in medicine of any university can practise as an apothecary in England or Wales, unless he has been examined and approved of by the Society of Apothecaries of London, but when he presents himself for examination, he is told he cannot be examined unless he has been for five years an apprentice to an apothecary, which it is more than probable he has not, and thus, although a more highly-educated and competent man, he is by this oppressive and tyrannical act precluded from getting his bread, whatever country he may be of. He

cannot get it in his native village, if he be an Englishman or a Welshman, without being prosecuted for it as an offence.

"By this same act a surgeon, however highly educated, or competent he may be, to act as an apothecary, cannot do so unless he has been apprenticed to an apothecary in a similar manner; and whilst the physician and surgeon of the highest possible attainments are thus treated by the Apothecaries' Society like toads under a harrow, the Master and all the Society of Apothecaries, who have prosecuted these physicians and surgeons to their ruin, (and there are men in this situation at this moment and only to be saved by this committee,) for making up a pill necessary after an operation, may, if they please, physic the same person to death, do the same operation if they have not killed him before, and make up the same pill with perfect impunity.

"These appear to be such enormous grievances, that it is hoped a committee of the House of Commons will feel they cannot separate, or close their proceedings, leaving them unredressed to the extent of their ability. They were hardly exceeded by the Acts of the Star Chamber in the worst days previous to the Revolution.

"The amended bill, now before the committee, obviates these grievances, and with the addition which it is reported was to be added, viz. 'that every surgeon should have attended the physician's practice of a general or county hospital for twelve months, or of a general or county hospital for six months, and of a dispensary or parish infirmary, duly recognised by the Society of Apothecaries, for another six months, would be as perfectly just to all parties, as at present could be desired by impartial persons.'

"The opposition to the amended bill rests with the College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow. (The Irish College of Surgeons, it is reported, offers to withdraw rather than create embarrassment.) They contend that they ought to be placed on the same footing as the Universities, and that persons possessing their diplomas should be admitted in a similar manner as the graduates in medicine to practise as apothecaries in England and Wales without undergoing an examination by the Society of Apothecaries in London; thus claiming to be placed on a higher ground than their brethren of the College of Surgeons of London.

"There are two great objections to this claim. For although it seems specious that both should stand on the same footing, they would not, if the claim were allowed, be really so. The physician-apothecary is not by Act of Parliament, eligible to the office of surgeon to any county gaol in England or Wales. Neither is he eligible to the office of surgeon to any county hospital, nor to that of surgeon to a parish in London, nor, it is believed, in any of the great provincial towns. These offices all require a surgical diploma as a necessary qualification, whereas the member of the College of Surgeons of Edinburgh, having this qualification, is eligible to them all, and therefore comes into England, be he an Englishman or not, in a very different situation to the graduate of the University of Edinburgh. This latter gentleman must seek an examination from a College of Surgeons before he can be eligible to any of them, and thus undergoes two examinations for what the surgeon can obtain for one. The physician-apothecary of Edinburgh is then by no means on a footing with the surgeon-apothecary of Edinburgh, and the claim of the latter, as founded on *equality*, is unjust. To put them on an equality the physician-apothecary must obtain a surgical diploma, and the surgeon-apothecary must either become a graduate of the University, or be examined by the Society of Apothecaries of London. They will then be both eligible to the same appointments, and not otherwise. They will then be fairly what is called general practitioners, having each un-

dergone two examinations, and be on a par in that respect with the surgeon-apothecary, educated in England.

"The English College of Surgeons objects to the admission into England and Wales of the members of the Scotch College of Surgeons, unless they have undergone two examinations in either of the ways above-mentioned, as they may think proper to choose; because their members are obliged to undergo two examinations, and, as they and the Society of Apothecaries maintain, greatly for the advantage of the public. If a Scotch physician wishes to practise surgery legally in Scotland, by obtaining the diploma of the College of Surgeons, he is obliged to undergo their examination; the College of Surgeons will not receive his degree in physic as sufficient qualification without it; and, on the other hand, if a member of the College of Surgeons wishes to become a graduate of the University as a physician, the University will not receive his diploma of surgeon as a sufficient qualification, but force him not only to undergo the required examinations, but also to show that quantum of study by the bed-side of the patient, under the physician of the hospital he has attended, which may have rendered him fit to practise as such. If the University of Edinburgh will not receive the diploma of the Royal College of Surgeons of Edinburgh as a sufficient qualification in physic, why should it be received as such in England? It is a good qualification in England in surgery—it is not worth while to dispute it as far as regards the art and mystery of an apothecary; but this art and mystery of the olden time did not include, as it does now, the practice of physic, and consequently any examination of the College of Surgeons of Edinburgh in that branch of the profession ought to be considered, like similar examinations of the College of Surgeons of London, as very useful things, and be worth just as much, but not equal to a regular examination in medicine.

"The education of a Member of the Scotch College of Surgeons may be begun and completed in three years. No fixed age is required for obtaining the Diploma; he undergoes only one examination, and pays six pounds.

"The education of a Member of the English College of Surgeons, being also a Licentiate of the Society of Apothecaries, requires at present six years to be employed in some kind of professional study; that the person be twenty-two years of age; that he undergoes two separate examinations by two distinct bodies, and that he pays twenty-eight guineas.

"The difference between the two is great, more particularly as the three years of study required by the Edinburgh College, may be passed altogether in England, and the Candidate only go to Edinburgh to be examined. It is feared, therefore, that if English Students, on obtaining the one Diploma from Edinburgh or Glasgow were admitted to practise as Apothecaries in England and Wales, instead of being obliged to obtain two, as at present, the temptation would be irresistible, and many Englishmen would desert the provincial schools of England as well as those of London, not because they could learn better, but because they could learn enough to obtain a diploma at half the expense of time, money, &c. and for one examination. By requiring a second examination in London by the Examiners appointed by the Society of Apothecaries, a sufficient, although not a perfect check is established to prevent this, inasmuch as the English College of Surgeons and the Society of Apothecaries appear to rely upon the superiority of means (not of men) in the English schools of surgery, as a sufficient set off against the bonus still remaining in favour of the Scotch surgical diploma, as compared with the English one.

"If the interests of the public, as arising from the extended course of study of five or six years, and the two separate examinations, be not considered (and the claimants have not

said that the three years' study and the one examination answer better for the public than the five or six years' study and the two examinations), the matter in litigation becomes one of pounds, shillings, and pence. It is a mere squabble between a few professors in Edinburgh and Glasgow, and a few more in London and the great provincial towns in England, which shall get most money from the education of the students; which college shall get the money accruing from the diplomas; and the question is, will the legislature sanction a race between the parties, to see which shall be able to manufacture a surgeon-apothecary, or general practitioner, in the least possible degree of time, at the least possible expense, and at the earliest possible age? In the year 1813, when the demand for surgeons in the army was greater than the recompensing power, a sufficient number of men duly qualified by examination could not be obtained to hold commissions as surgeons; the government had recourse to the experiment of trying men who were unable to obtain a proper qualification by due examination, and to these they gave only a warrant. They were found so destructive, however, of human life, that this warranting of gentlemen to kill was soon withdrawn, and the qualifications required for admission into that service have become greater than before. If it has then been found necessary to secure to the army, practitioners who have shown their capability, by at least two examinations, surely the public at large is entitled to something like a similar safeguard; and although a free trade in mercantile articles may be desirable, a free trade in the destroying of human life is certainly not usually contemplated by reasonable men. There is no country in Europe that has not restrictions on this point, but Great Britain and Ireland have the fewest.

"If these, then, be the only points in litigation in the amended bill, which is not one of general education, but is merely intended to remedy the manifest and acknowledged defects and oppressions of a former one, the committee can only in reason ask for evidence on the points in the dispute between the parties, and if the gentleman representing the claimants was examined by any member of the committee, the questions being furnished by the opponents or defendants, evidence to the perfect conviction of every member would be adduced in two hours; and if printed, every member of the legislature could make up his mind on the facts of the case without the least difficulty. The amended bill would then be found to give all parties every privilege they were fully entitled to, and to some of them rather more, but to none of them less. It gives to the public no more than a fair and reasonable protection. It does away with all monopoly, and will give comfort and happiness to many a poor and helpless man, who is suffering under the oppression of the present Apothecaries' Act. Two hours' loss of time to the committee would be nothing; to these poor men they would lead to every thing, they would secure to them in all probability a life of comfort, instead of one of destitution, not caused by any fault of their own, but by an act of parliament, which it will be an indelible disgrace for a reformed House of Commons to allow to remain for another session on its statute book. The writer of this paper has no personal motives, he is not affected in any way by the old bill, and is only actuated by feelings of justice and of commiseration for those who have and are now suffering from its oppressive enactments. He will, for his own part, be quite satisfied, if every clause be struck out of the amended bill, which is supposed to give influence to any corporate body, provided those remain which give these innocent and suffering men relief."

THE IRISH INFIRMARY AND DISPENSARY BILL.

THERE is a bill now before parliament which repeals all the acts relating to county infirmaries, hospitals, and dispensaries in Ireland; appoints the Lord Chancellor, bishop of the diocese, and rector of the parish a perpetual corporation for purchasing lands, erecting hospitals, &c. The bill abolishes all corruption at elections of medical officers; and in cases of bribery or creation of fictitious votes, the person elected is disqualified, and cannot offer himself on any future occasion.

We sincerely hope such a law as this will extend to England, where all medical appointments are procured by corruption, vote-making, family, or political interest. There is a clause in the bill that all physicians and surgeons to county hospitals should be members of the Dublin colleges. This enactment is in accordance with several statutes, and has been censured by one of our contemporaries as an unfair monopoly. Let the writer look nearer home, and he will perceive as great monopolies as this. As soon as the bill has passed, we shall place it before our readers.

RE-APPEARANCE OF MALIGNANT CHOLERA.

WE deeply regret to announce that we have seen a case of malignant cholera, under the care of Mr. Marsden, at the Free Hospital, Greville-street, on Tuesday night last. All the characteristics were present at our visit, except blueness of the extremities. The patient, a young woman from Lincolnshire, had been attacked on Sunday night, and appeared at our visit to be dying. There was no pulse, cold crimson-coloured extremities, breath and tongue cold, and mucous rattle in the chest. Mr. Marsden determined to employ the saline injections; and after having used three pints of fluid she rallied, the pulse returned, the countenance brightened, the faculties of the mind and speech were restored, she knew and spoke to some of the attendants, called for a glass of brandy and water, and commenced a song. We left the hospital at 1 o'clock, A M., and learned that the patient expired at half-past 8 on Wednesday morning. The saline injection was composed of a pint of tepid water at 98°, and two drachms of table salt; and the injection of three times that quantity occupied three-quarters of an hour. Mr. Marsden informed us that he had saved two patients last year by this means, on one of whom it was tried thirteen times. Mr. Sharpe, the vestry clerk of the Lower Liberty of St. Andrews, Holborn, also witnessed this case.

There is a vast deal of diarrhœa and English cholera prevalent at present, but we have invariably observed that they rapidly yield to ordinary remedies.

We think that the government should select those who have seen and treated most cases of cholera, and not a board of three army surgeons, with colonels and majors, as on the late occasion.

The last board have left no description of the best treatment of cholera, because they had not treated it, and were a useless and iniquitous incubus on the civilised world.

DR. GRAVES ON MEDICAL WORKS RECENTLY PUBLISHED IN GERMANY.

THE father of medicine in Turkey was an Arabian, named Lochmann, appointed in the seventeenth century by Mahammed, to discharge the sacred functions of physician. The miracles performed by Lochmann were numerous, and tradition has recorded them in glowing colours: he was a wandering dervise, and taught his art to the brethren of his order, who, retaining to this day the precious secrets he revealed, continue by birth-right the practitioners of

Turkey*. As might be expected, this religious order of physicians are greater proficients in superstition than in practical medicine, and except being acquainted with the virtues of a few plants, they absolutely know nothing. It is true, indeed, that they attempt to acquire confidence by appealing to supernatural agency, divination, astrology, talismans, and cabalistic figures.

Sometimes they attribute the origin of disease to the special wrath of God, in others to the interference of devils, but never perform the ceremony of deprecation or exorcism without a multiplicity of rites and sufficient pay. Where money is given in the expected quantity, their prayers are endless, their beads are told *ad infinitum*, picked sentences of the Koran are sewn together and given to the patient to swallow; or when a fluid menstruum is preferred, the holy words are written with chalk upon a piece of board, this is washed, and the water with which the ablution is performed, forms a draught potent in proportion to its impurity. Amulets, however, form the favourite charm of the Turks, and over the whole of the east, Mahammedans †, Jews, and Christians, appeal to their protection when threatened or overtaken by misfortune. Hence, few die without wearing two or three amulets, to whose safe guardianship they had intrusted their lives. They generally consist of a scrap of paper, containing a sentence from the Koran or Bible, embellished with cabalistic figures, and folded in a triangular shape, enclosed carefully in a little bag, and worn next the skin, either by means of a string hanging from the neck, or by being stitched inside the turban. Some amulets, supposed to possess a spell capable of protecting from ball and dagger, are sold at an enormous price. Thus, says Dr. Oppenheim:—

"After the defeat and death of Wihli-Beg in Monastir, an amulet (Nusko) was found on his body, which he had purchased for sixty thousand piastres. The Selictar (sword bearer) of the grand Vizier, had its virtues renewed by a dervise, and then wore it himself; I asked him how it happened, that the fate of its late possessor had not rendered him sceptical concerning its protective powers. He answered, that nought, save the holy will of the Sultan, exceeded this Nusko in power, and that so long as he who wears it refrains from provoking the displeasure of his sovereign, he is secure against the hottest fire of the enemy or the poniard of the assassin."

The unsuccessful Turkish suitor invokes his amulet to soften the obdurate heart of his mistress, and those who are afflicted with ophthalmia, ague, and various other diseases, often place their whole reliance upon the virtues of a scrap of consecrated paper. As the dervises who practise the healing art can alone infuse power into these amulets, they foster the public credulity, and by selling them at an enormous price, contrive to lose nothing by the confidence of their patients being transferred from themselves to the amulets they manufacture. This is silly and melancholy enough; but after all, while the newspapers of Great Britain advertise every day hundreds of specifics, while there are purchasers in abundance for quack medicines, such as Morison's pills, which heal every disease; while the aristocracy of the country besiege the door of St. John Long; when a nobleman and a member of parliament, still considered sane by his constituents, has sworn in a court of justice that St. John Long's frictions caused globules of quicksilver to exude from his skull; when a barrister of reputation in Dublin believes and asserts that the same liniment drew a pint of water from his own brain; when half the

* The Turks, with a happy knack of distorting Frankish names, have confounded Hoffman with Lochmann. Thus, Hoffman's liquor they call Lochmann-rouch.

† The name of the prophet is pronounced *Mahammed*.

community of Dublin believed the miracles of Hohenlohe; when a commission, appointed by a grave and learned society of physicians in Paris, has reported favourably of the miraculous effects of animal magnetism; when we recollect all this, I say, ought we to indulge too freely in ridiculing the Mahammedans for their trust in amulets, or the Turkish matrons for their dread of the evil eye of the stranger, and their belief that all the maladies of their offspring spring from its blasting influence? Another superstition of the Turks is, an observance of lucky and unlucky days for prescribing or taking medicine, and it is singular enough, that they consider Friday, the most unlucky day of the week with ignorant Christians, as the most propitious, while Tuesday is regarded as peculiarly unlucky, and no one thinks either of the exhibition of drugs or the performance of operations, even in the most urgent cases, upon a Tuesday. It was on a Friday that the memorable flight of Mahammed took place, by which his life was saved. Every one in society, who can afford to pay for such useful information, takes care to purchase from the astrologers an interpretation of his destinies, as fixed by the stars that presided over his nativity, and each person has his own lucky and unlucky day of the week. It is well known, that even the mighty genius of Napoleon was enslaved by somewhat a similar superstition. The total ignorance and incompetence of the native practitioners have not altogether escaped the observation of their countrymen, for it has been long ago remarked, that a foreign physician, particularly if a Frank, is supposed by the Turks in general, to be possessed of far superior knowledge, and accordingly they are followed with avidity. Whoever appears in any part of Turkey dressed like a Frenchman, an Englishman, or a German, in fact, whoever wears a hat and not a turban, is immediately looked on as the possessor of medical knowledge, and is at once called "Hekim Baschi," and must *nolens volens*, immediately enter upon practice, for the Turks crowd round him, and hold out their hands that he may feel their pulse, which, in their opinion, is all that is necessary to enable the physician to form a correct diagnosis, and they believe, therefore, that when the pulse has been felt, nothing more is required to give an insight into the nature of their disease, and the proper method of treatment. Others of the crowd, thinking themselves sufficiently acquainted with the nature of their own maladies, seek in the physician only a person to supply them with the remedies they themselves indicate, and accordingly, one applies to him for a vomit, another for a purgative, a third for a medicine to produce wind, another for one to expel it; for the ancient pathology, that diseases are caused by an excess or deficiency of wind in the various organs and cavities of the body, is still common; thus, a headach is caused by wind in the head, dyspnœa by wind in the chest. The physiology of respiration is thus rendered very simple, and the trachea becomes the air pipe not merely of the lungs, but of the whole body.—*Dublin Medical Journal for July.*

PETITION AGAINST THE BY-LAWS OF THE COLLEGE OF PHYSICIANS.

A PETITION is in course of signature from the Licentiates of the Royal College of Physicians to both houses of parliament, for an inquiry into the abuses of that extraordinary mausoleum in Pall Mall East. The signatures of some of the first physicians in the country have been already attached to it; but we regret to observe, that not a single Fellow has yet signed it, although so many of them are feelingly alive to the gross injustice that is perpetrated under the sanction of the by-laws. Amongst those who have already signed this document are Sir Gilbert Blane,

Dr. Birkbeck, Dr. James Johnson, Dr. Granville, Dr. Gregory, Dr. Somerville, Dr. Sigmond, Dr. Webster, Dr. Macleod, Dr. C. Holland, and many other men, distinguished alike for their good sense and independence. An association is also about to be formed, to promote the great object of Reform, and a meeting is to be held in the course of this or the following week, to take such steps as may be considered necessary to enlighten the minds of the legislators, whose ignorance upon the subject of our chartered institutions we have had so much reason to deplore. Upon the whole our prospects are most cheering. Unanimity, decision, and patience will be required, and the result is certain. One thing we are assured of, that two or three of the Fellows are so bigoted to their own stupid notions, that nothing will proceed from them.

CASE OF MALIGNANT CHOLERA.

BY WILLIAM MARSDEN, ESQ.,
Surgeon to the Free Hospital, Greville St., Hatton Garden.

Mahala Ladds, aged twenty-one years, from Lincolnshire, a respectable servant, residing in the Great Dover Road, Borough, had been in town about two months, she had suffered slightly for four days with diarrhœa, and on the morning of the 7th instant she was seized with severe pain in the stomach and bowels, accompanied with incessant purging and vomiting, first of a green bilious nature, and afterwards of the rice-water character, about noon severe cramps in both the upper and lower extremities came on, the pulse gradually sunk, and at eight o'clock P.M. was not perceptible at the wrist, thirst was excessive during the whole time, the eyes sunken with a very dark semilunar mark upon the inferior palpabræ. The flexor muscles of the hands, fingers, feet, and toes, were rigidly contracted, and the integuments blue and shrunken, lips livid, the tongue clean and moist, and the breath cold to the hand. Up to nine o'clock, P. M. she had taken only carminative medicine, with opium and soda water, cataplasms had been applied to the feet, and she appeared to be fast approaching to dissolution, when the following saline medicine was commenced,

℞ *Sodæ Muriat.* ʒij.
—— *Carbon.* ϑ
Potassæ Oxymur. gr. vii.

and repeated every fifteen minutes, with as much cold water as the patient desired. At half-past twelve, A.M., 8th instant, the pulse was quite perceptible, sickness and purging slightly diminished, with a slight return of warmth in the extremities; from this time the powders were given every half-hour, and an unlimited quantity of cold water as before; her symptoms continued favourable through the night and the greater part of the day, till 6 o'clock, P.M. when the pulse again sunk. Sickness, purging, and thirst, still continued, but the cramps were present and not severe.

At eight o'clock, P.M. the patient was removed to the Free Hospital in Greville Street, when the same plan of saline medicine was continued; she had some tranquil sleep during the night.

At ten o'clock, A.M. 9th., tongue red and dry and a general restlessness; pulse not perceptible; sickness and purging slightly continued, but of a green colour; no urine had been passed since the night of the 6th; during the day she gradually sunk into a low typhoid and comatose state.

At a quarter past eleven o'clock, P.M. she was visited by Dr. Ryan and myself, and to all appearances she was at the point of death. No pulse; stertorous respiration; cold humid skin, and insensible to any impression. She was now subjected to saline transfusion, and three pints of warm water at 98°, with ʒvj of mur. sodæ were injected in three quarters of an hour. She completely rallied, the pulse returned; she spoke distinctly; called for brandy and water; knew some of the attendants, and

commenced a song. She had a glass of brandy and water, additional bed-clothes, and was ordered beef-tea, arrow-root, and brandy and water during the night. We left her at one o'clock A. M. Wednesday. She sunk at half past eight, A. M. on that morning.

A CASE OF REAL DISTRESS.

THE widow of a physician, whose life and talents were devoted to the poor and unfortunate, and who lately died after a painful and protracted illness, is reduced to the necessity of soliciting the assistance of the charitable and affluent in behalf of herself and six children, who are left under peculiarly distressing circumstances. Prompt relief will enable the widow to surmount present difficulties, and arrange plans for the future support of her numerous family. A Presentation to Christ's Hospital for one of the younger children would be most gratefully received and acknowledged. The case is strongly recommended by Dr. B. Babington, Aldermanbury, Dr. J. Johnson, Suffolk-place, Pall-Mall, Dr. Billing, Bedford-place, Russell-square, Rev. J. Halt, Christ's Hospital, Mr. Burrell, 23, Old Jewry, who undertake to furnish details, if required, and to receive subscriptions: also of Mrs. Hodgkinson Stationer, Kingsland.

Dr. Babington	5	5	0
Dr. Billing	2	2	0
Dr. Johnson	2	2	0
Dr. Ley	1	0	0
Mr. Bishop	1	0	0
Dr. Roget	1	0	0
Sir C. Bell	1	1	0
Dr. Chambers	1	1	0
Sir Astley Cooper	1	1	0
Sir Henry Halford	1	1	0
Mr. Brodie	1	1	0
Dr. Williams	1	1	0
Mr. Partridge	1	0	0
Dr. Conquest	1	1	0
Dr. Clutterbuck	1	1	0
Dr. Farre	1	1	0
Dr. Roots	1	0	0
Dr. Darling	1	0	0
Mr. Hind	1	1	0
Dr. Burder	1	1	0
Dr. Maton	1	1	0
Dr. Latham	1	1	0

THE NATIONAL VACCINE BOARD.

OUR contemporary, the Medico-Chirurgical Review, very severely deplores the abolition of the National Vaccine Board, which "many ignorant and evil-minded individuals had looked on as a job; and it is true that the government had been deluded into a similar belief. The present may be considered as the age of bold and bad men;" and next follows the annual report of the board, as a sufficient answer to its calumniators. To this is appended a remark,—"Our contemporary, the London Medical and Surgical Journal appears to rejoice at the abolition of this board;" and, finally, our exposure of the salaries to his Majesty's limner and historiographer, as medical items.

Our contemporary cannot have seen or heard the evidence given before parliament, relative to the efficiency of the National and Jennerian Boards, by which it appeared, that the former, which was a rival to the latter, paid by the public very handsomely, patronised by the presidents of the College of Physicians and Surgeons, and managed by about twenty of the collegiate toadies, each having 100*l.* a-year, did less good than the Jennerian, though conducted by one director, and without any government patronage whatever. It appeared that the labours of all the officers of the Vaccine Board had been exceeded by the Jennerian director, that he had single-handed vaccinated last year about 2000 individuals more than his rivals, and that his salary for devoting his whole time to the subject was only 150*l.* a year. But it is no doubt a deplorable occurrence, that the presidents of the colleges, who, we dare say, never vaccinated a human being, should lose a 100*l.* a year each for patronising the National Board, not to take into calculation the losses sustained by their friends. Besides, it was proved by Dr. Epps, that he considered government patronage an absolute impediment to the diffusion of vaccination, and de-

clined to accept any for the Royal Jennerian Institution. If, therefore, the blessings of vaccination can be diffused by this valuable institution without putting the country to any expense, and without sinecures for persons who monopolise every thing they can grasp, we rejoice at it, and must leave our contemporary to deplore such a national misfortune. The manner in which he put the case on his side of the question, by which it would appear, that we rejoiced at the abolition of a Vaccine Board, as if the Royal Jennerian Society was not in existence, or in other words, that we are insensible to the incalculable value of vaccination, left us no alternative but to state the case as it really is, and to prove that we, the avowed enemies to medical jobbing and abuses, had just grounds for rejoicing at the abolition of as gross a job as ever existed.

Reviews.

The Dublin Journal of Medical and Chemical Science, exhibiting a Comprehensive View of the Latest Discoveries in Medicine, Surgery, Chemistry, and the Collateral Sciences. No. IX. July, 1833. Vol. III. Dublin: Hodges and Smith.

This valuable periodical maintains its high ground as one of the most scientific journals of this country, and its present number is equally instructive as those that have preceded it. The original communications are seven in number, and among these are papers of considerable interest.

The first article is "On the Properties and Composition of the Compounds of Chlorine with Iodine. By Mr. Kane, the Editor of the Journal." The scientific chemist will be highly pleased with the perusal of this paper.

The second article is entitled "Strictures on Dr. Adams' Observations on Mediate Auscultation as a Practical Guide in Difficult Labours. By W. Johnson, M. D." The writer of this paper undertakes to prove, that a knowledge of the death of an infant is of no importance in the practice of midwifery. His arguments clearly convince us, that his experience in obstetric practice admits of considerable enlargement. He thinks it an established rule in midwifery, that while the parturient pains continue efficient, the powers of the woman unimpaired, and no sign of local inflammation present, that any interference of the practitioner is culpable. Now let us apply this rule at the bed-side. Suppose a woman is so deformed that embryotomy is required, we beg to ask, is the practitioner warranted in allowing the labour to continue for two, three, four, or seven days, as was once the custom, until the powers of life are exhausted, or until local inflammation, or incipient gangrene is threatened, should the infant be dead on the first day? Few experienced obstetricians would, we believe, expose the woman to a long protracted labour, even under the idea that the infant was alive, much less if it were dead. We are among those who think the destruction of the life of the infant to save that of the mother, when in fact we seldom can be certain of doing so, perfectly unjustifiable, though recommended and adopted by many of our eminent obstetric writers, because we believe in the tenet of the inspired writer, "that we must not do evil that good may follow." We also feel thoroughly convinced, that the woman ought not to be allowed to suffer severe labour longer than twenty-four hours, nor even for one hour, if we were morally certain of the death of the infant. We, therefore, give our entire assent to the conclusion of Dr. Adams, that it is a great desideratum to determine this point by the stethoscope, or any other means. But Dr. Johnson supports his view by quoting an isolated passage from the work of Professor Burns, in which that able author states, "that the signs of the death of the infant are extremely equivocal; nor is this much to be regretted, for we do not operate because the child is dead, but because it is impossible for the woman to be

otherwise delivered." "From this it is evident," says Dr. J., "he considers a knowledge of the death of the child no desideratum in the art of midwifery." This is not a fair inference, and even if it were, it by no means follows that the whole profession are to pin their faith to the sleeve of the learned professor. We need scarcely observe, that there are as eminent and as experienced obstetric authors, on the Continent of Europe and in America, who maintain that the destruction of the life of the infant is unwarrantable. Dr. Johnson is of the opposite opinion, and may quote many British lecturers in support of it. We think he is much too dogmatical on a point of practice so very much disputed, as the propriety of craniotomy of a living being. He seems to have overlooked almost all that has been written on the comparative safety of the Cæsarean operation and embryotomy to human life. He adduces cases of suspended animation after difficult labour, in which life may be restored after more or less difficulty, against the assertion of his opponent, that auscultation is an unerring guide to the detection of the fœtal pulsations. This, however, is merely an exception to a general rule, and we should very much like to know which are the general rules in physic that are free from exceptions. Dr. Johnson goes on to state, that in one case, in which he thought he had distinctly heard the fœtal pulsations, and that he had scarcely pencilled down his observations of the last examination, until the woman was delivered of a still-born child. "Such are the results of my experiments. Let the profession view them in whatever light it thinks proper. I am sceptic enough to doubt, if in a single instance of the nineteen cases, recorded by Dr. Adams, he heard the pulsations of the fœtal heart. I am far, however, from questioning, by this statement, his veracity." Dr. Adams states, that himself and Dr. Collins have verified the point in dispute in numerous cases, Dr. Kenedy and ourselves have done the same, and it therefore appears to us, that these observations are as likely to be right as the individual who questions the accuracy of their statements.

Dr. Johnson animadverts on Dr. Adams' assertion, that the fœtal heart, in a natural presentation, is audible in the right iliac, or inguinal region. In our opinion both are right, and both are wrong on this point. Common sense as well as scientific knowledge must convince any practitioner, who reflects for one moment, that the fœtal pulsations of the heart will be heard in different positions, during the different steps of the progress of natural labour, and must also vary according to the posture of the woman. We have maintained and demonstrated this fact elsewhere (see Ryan's Manual of Midwifery, 3rd edition, 1831), but the variation of the position of the fœtal heart is no proof that its pulsations may not be heard in many or in any situation in the pelvis, as argued by Dr. Johnson. In making these remarks, we must state, that our impartial duty impelled us; and we may observe, we have not the pleasure of the acquaintance of either of the contending parties. In our opinion, both might advantageously refer to many standard works before they next appear in print; and instead of taking partial views they should recollect the extensive bearings of the important branch of medical practice on which they write. In our opinion, the commentator has much more reason to adopt our suggestion than the original essayist, for his strictures are totally unmerited, except on the single question of the relative situation of the fœtal heart with regard to the pelvis of the mother, and they are written with a degree of acerbity and reproof, which no longer characterise the writings of our profession. To us it is manifest, that his opponent may easily overthrow every one of his comments, unless that to which we have already alluded.

The third paper is "On Spontaneous Human Combustion. By E. Sharkey, M. D.," who has cited some

remarkable observations, and endeavoured to explain them by the different hypotheses founded upon the subsistence of certain combustible gases in the animal body, and their ignition by the electrical fluid within or without this corporal system. Among his quotations is the following:—

"The London Cyclopædia mentions the frequent occurrence of these in northern regions after taking immoderate quantities of gin, and quotes the case of a Bohemian peasant, in whom they were disengaged in such quantity that all efforts at extinguishing the flame proved ineffectual. The same article adduces the instance of a pig, which, upon the division of its skin, emitted a quantity of inflammable gas; likewise that of an ox which had been sick for some time previous, and from which inflammable gas proceeded in such quantity as seriously to injure the butcher and a by-stander. It also mentions that two eminent anatomists were present at the dissection of a woman, from whose stomach a volume of vapour escaped, which took fire on the approach of a candle. It has been moreover ascertained that the gases disengaged in the intestinal canal are frequently of an inflammable nature."

(*To be concluded in our next.*)

An Inquiry into the Causes of Respiration, of the Motion of the Blood, Animal Heat, Absorption, and Muscular Motion, with Practical Inferences. By James Carson, M. D. Liverpool: Second Edition. 8vo. pp. 447. London: 1833. Longman and Co.

It is often a matter of deep regret to us, that the nature of a weekly periodical precludes us from analysing the numerous voluminous works that come before us, but our readers well know it is impossible for us to attempt an analysis of the multifarious, systematic, and elaborate productions that daily issue from the press. Indeed, so far from examining them critically, we too often find it extremely difficult even to notice them superficially, in consequence of the fecundity of authors. When our readers remember the many subjects that crowd upon our attention, and how we are occupied in narrating recent events, the *varios casus et tot discrimina rerum*, through which we pass hebdomadally, they must acknowledge that we have little time to enter into elaborate criticisms, or spare to devote to them. We feel ourselves called upon to make this statement, as an apology for not analysing the valuable and important work before us; but were we to attempt it, we should devote much more of our time and space than our duty and arrangements permit. Having premised thus much, we hasten to express our opinion of Dr. Carson's work. It is evidently the result of careful investigation, rational and logical inferences, from actual experiment, and repeated observation. It is a clear and satisfactory elucidation of the very important points of physiology, of which it treats; but we think the author is not borne out in some of his practical inferences. We consider him a physiologist and a physician of the highest attainments, and the most mature judgment.

French Medicine.

Satyriasis from a blow on the Occiput.

M. Chauffard, of Avignon, relates a case of a man, aged 55, of a religious turn of mind, who fell down in his chamber, and struck his neck against one of the bed posts. He was seized with a violent and continued satyriasis, which led him to attack his wife, daughters, and any female that came in his way. His delirium was the most erotic. He continued in this state for three months, during which time his mind and strength declined; when following a violent passion, which was occasioned by the refusal of his wife, *lassata viro et satiata*, he was seized with a convulsion, and complained of

pain in the summit of the head, (where the religious feelings are situated,) and was free from that in the occiput. This was followed by paralysis of the left side, cessation of the satyriasis and erotic delirium, religious mania, continual muttering of prayers, &c. These symptoms continued for eight days, when death took place. The body was not examined.—*Condensed from the Report of Mr. Haley Holm in the London Med. and Phys. Journal, July.*

Plica Polonica.

M. Sedillot, who has lately returned from a sojourn in Poland, communicated to the Anatomical Society of Paris the personal observations he had made on this singular disease. One of the hairs taken from a plaited mesh was subjected to a microscope; by means of which a median canal, gradually enlarging towards the free extremity of the hair, was clearly seen. This canal was lined with a most delicate reticulated tissue, and in this tissue the colouring matter was contained. The bulb was distended and softened, and drops of matter could be squeezed from it. The disease commences in the bulbs, and propagates itself towards the loose ends of the hairs. After a time the diseased secretion becomes less and less, and finally ceases, and the hair returns to its normal state.

[This disease, as well as the painful state of the hair, described by Baron Larrey, proves that this part of the body is liable to inflammation, though denied by some anatomists, who exempt the hair, nails, and cuticle.—Eds.]

Intermittent Spasmodic Cough.

A case of this disorder is recorded by M. Bricheteau in the *Journal Complementaire*, in which the ordinary treatment, by leeches, blisters, emetics, and so forth, had failed; and an injection, composed of ten grains of assafœtida, three grains of quinine, a yolk of an egg, and six ounces of water, was given with the happiest effects. [Perhaps quinine would have answered equally well.—Eds.]

Protoxide of Azote in Cholera.

M. Lepage, the reporter of the Medical Commission at Orleans, states, that the protoxide of azote was inhaled by thirty-five individuals, in nineteen of whom it was favourable, in fifteen it produced no results, and in one its action was injurious. This gas excited the circulation and action of the heart, but it can only be considered an auxiliary in the treatment of cholera. The most favourable time for its employment is at the moment asphyxia commences, and after this it is useless. It was tried in doses of from three to four littres by means of bladders, and the quantity was increased to twelve, fifteen, and twenty littres. It was better to inspire it through the nostrils than the mouth. —*Ibid.*

M. Rostan has just been appointed, at a *concours*, Clinical Professor to the Faculty at Paris.

LITERARY INTELLIGENCE.

Dr. Hennen is preparing for the press a new edition of his father's Medical Topography, to which he has made additions.

BOOKS.

The Medico-Chirurgical Review for July, 1833. Edited by James Johnson, M. D., Physician Extraordinary to the King.

The Edinburgh Medical and Surgical Journal for July.

The Dublin Journal of Medical and Chemical Science.

CORRESPONDENTS.

An Edinburgh Graduate and Friend to Impartiality.—This communication was written in haste, and requires revision before it will be fit for publication.

Dr. Baird's communication in our next.

All Communications and Books for Review to be forwarded (free of expense) to Dr. Ryan, 61, Hatton-garden, or to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 77. SATURDAY, JULY 20, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XLV., DELIVERED JAN. 30, 1833.

Gentlemen,—On Monday evening I endeavoured to explain why fractures of the neck of the thigh bone should be so common in elderly persons, especially in those whose age is above fifty. I may now mention, that such fractures are more frequently met with in women than men, and two reasons may be assigned for this fact; first, the neck of the femur in women is naturally longer and more slender than in the other sex; and secondly, as the pelvis is wider, the trochanters project in a greater degree, and are consequently more exposed to external violence. In this metropolis, fractures of the neck of the thigh bone most frequently happen from the foot suddenly slipping off the curb-stone; but sometimes from falls on the side of the pelvis. In Paris, where the pavement is differently arranged, and the curb-stone is not so common, the accident is usually produced by falls on the hip. When the neck of the thigh bone is fractured, and the fragments are not separated, the reflection of the capsular ligament from one to the other not being torn, the diagnosis is generally attended with some obscurity, because most of the characteristic symptoms are absent; for instance, there is neither shortening of the limb, nor eversion of it. However, you will find that the patient cannot raise the injured limb from the surface on which it is deposited—he cannot lift it up from the bed; he may, perhaps, contrive to bend his leg slightly, but he cannot raise it up. Though a degree of obscurity may prevail at first, the nature of the case will mostly be apparent enough in a few days; for at this period the reflection of the capsular ligament often gives way, sometimes in consequence of the patient moving his limb too much, sometimes in consequence of the surgeon doing the same thing; but, in whatever way occasioned, it leads to a retraction and eversion of the limb.

Gentlemen, I apprised you the other evening, that some cases are met with in practice (although they are very uncommon), in which the foot and knee are *inverted*, instead of being turned outwards; and I referred you to the explanation given of this circumstance by Mr. Guthrie, which explanation is adopted also by Mr. Syme, of Edinburgh. It is suspected, that when this unusual position of the limb presents itself, the fracture must have taken place in such a direction through the trochanter major as to leave attached to the pelvic fragment the insertions of the obturator internus, the gemelli and pyriformis, which muscles, you are aware, are naturally concerned in rotating the thigh outwards, while the other, or external fragment, is drawn forwards and inwards by the gluteus medius, so as to invert the limb. This is one explanation, which, however, is not in every respect satisfactory, or which, I should rather say, does not satisfy some good judges of the subject. Supposing the action of the gluteus medius on the outer fragment to be the cause of the limb being turned inwards, it is certainly difficult to comprehend why the effect should not be counteracted by the triceps, which is a much more powerful muscle, and always disposed to rotate the femur outwards. Yet, the anomaly must, I believe, depend upon some peculiarity in the direction of the fissure. Other explanations have been offered, one of which is founded on the well-known fact, that when the neck of the thigh bone is broken, that portion of it which remains connected to the head is sometimes forced into the cancellous structure of the outer fragment, and immovably wedged in it. Now, if this were to happen in a particular way, it is conceived, that the inversion of the limb might be produced. Baron Dupuytren suggests another explanation, which

is, that when the neck of the femur is fractured obliquely, if the inner fragment happen to be obliquely in front of the other fragment, then the limb may be turned outward; but if the inner fragment be behind the other, then the limb may be inclined forwards, and the knee and foot turned inwards. I think this is a point in surgery still requiring further investigation.

But, gentlemen, one very interesting question, relative to fractures of the neck of the thigh bone, is, whether those which are completely within the capsular ligament, and transverse, with respect to the neck of the bone, are capable of osseous union. The fact, that bony union is possible in such cases, is now completely established, and almost every museum contains specimens illustrative of it. Unfortunately, there is no preparation of the kind in our museum; we have several specimens in which the fracture has not united at all, or only by a ligamentous substance. We have also an interesting preparation, in which the head of the thigh bone has been fractured, as well as the neck, and in which the injury of the former part has been repaired by bony matter, while that of the neck remains disunited. At all events, this preparation illustrates the possibility of the deposition of osseous matter from within the boundary of the capsular ligament, and even on the inner side of a fracture of the neck of the bone within that ligament.

You may conclude, then, gentlemen, that the possibility of the osseous union of fractures of the neck of the femur, though situated altogether within the capsular ligament, is completely proved. Yet, do not suppose that the process, necessary for its accomplishment, is so easy and sure as that by which the generality of other fractures are united. No doubt one circumstance operating against bony union, when the head of the bone is completely detached, is the scanty supply of blood which it receives, and which consists merely of that small quantity conveyed to it through the vessels of the ligamentum teres. Another circumstance is the difficulty of maintaining the fragments steadily in apposition; they are generally disturbed too much, and the proper apparatus is not kept on long enough. In fact, Baron Dupuytren contends, that, in consequence of the unfavourable circumstances in which the neck of the thigh bone is placed for bony union, the patient ought to be confined, and the requisite apparatus kept applied for a very long period, that is to say, from a hundred and twenty to a hundred and forty days. In this country, surgeons rarely persist in maintaining the limb quietly in a desirable posture for a space of time at all equal to what has now been specified. Mr. Langstaff, who has paid a good deal of attention to this subject, is led to believe, that if the limb were kept a sufficient length of time without motion, the ligamentous union would be converted into an osseous one. Here, gentlemen, is the specimen in which the head and neck of the thigh bone were both fractured; you observe that the fracture of the head is consolidated by bone, whereas that of the neck remains still disunited. Here is another preparation, in which the head of the femur has been completely absorbed after a fracture; similar specimens may be seen in the museums of other institutions. You may notice, that a ligamentous connexion has taken place between the fragments of the neck. Several of the preparations before us show us the alteration which usually occurs in the neck of the bone after a fracture; it is shortened by absorption, and the head assumes a position nearly between the two trochanters. Here is a specimen, in which there is a ligamentous union, but almost the whole of the neck is absorbed. The preparation which I now present to you, appears to be a case of bony union: but a part of the fracture undoubtedly reached beyond the capsular ligament. Indeed, I wish you to understand clearly, that the circumstance of the fracture being oblique or transverse influences very much the facility and chances of bony union; for if the case be oblique, part of the fissure will extend beyond the external limit of the capsular ligament, and then admit of osseous union with as much ease and certainty as any ordinary fractures. Here is another specimen, in which the head of the femur has been entirely absorbed.

Now, when transverse fractures of the neck of the femur within the capsule, do not unite by bone, they unite, as I have stated, by a ligamentous substance; the capsular ligament becomes thickened and strengthened, and ligamentous bands extend from it to both fragments, and sometimes from one fragment to the other. In a few instances, another mode of reparation is established; osseous matter is thrown out by that portion of the fractured neck which is connected with the trochanters, and the callus from this source assumes a shape calculated to support within it the end of the other fragment; in other words, a kind of socket is formed in the outer fragment, which, as well as the other fragment, becomes coated with what is termed the ivory deposit, a very smooth hard substance, by means of which the friction between the two fragments is lessened, and motion facilitated; it answers, in fact, the purpose of a cartilage. The particulars of several dissections of fractures of the neck of the femur, are given by Dr. Colles in the first volume of the Dublin Hospital Reports, and I recommend them to your attention as a most faithful report of facts.

With regard to the treatment of fractures of the neck of the femur, I may inform you, gentlemen, that, at one period, several surgeons considered the chance of bony union so hopeless, when the fractures were entirely within the capsule, that they did not deem it worth while to direct the treatment expressly to the attainment of such union, and they merely put the limb for two or three weeks on

the double inclined plane, or pillows or bolsters laid under the ham. Such, indeed, is the practice of Sir Astley Cooper, who places a pillow or bolster under the ham, and if the patient be very old, and the fracture attended with symptoms denoting its situation to be within the capsular ligament, Sir Astley renounces all idea of subjecting the case to very long confinement. At the end of two or three weeks, he allows the patient to get up and use crutches. Many surgeons do not pursue this method, and having greater confidence in the possibility of obtaining bony union, they recommend the confinement to be longer, and the fracture to be more carefully put up. With this view, they generally employ the double inclined plane, and apply the pelvis strap so as to make the pelvis and apparatus, as it were, one piece, between the two parts of which no motion can happen. In France, Baron Dupuytren makes a double inclined plane with pillows, duly arranged under the limb; but the objection to this plan is, that there is nothing to prevent the patient from changing his position, or the limb from assuming another posture; and if Dupuytren's method has the recommendation of simplicity, it is not a good one in other respects, since it cannot be depended on for keeping the limb steady. Amesbury's apparatus, I believe, is one of the most efficient and convenient; many surgeons deem it the best. An ingenious treatment was proposed some years ago by Hagedorn, the principle of which was to make the sound limb the part on which a long splint might be fixed, to the bottom of which a foot-board for the other limb was attached. Thus the surgeon had a fixed surface, on which the foot of the injured limb could be placed and fixed in the most desirable position; and, gentlemen, I may remind you, that the treatment consists altogether in bringing down the limb to its proper length, and regulating the position of the foot, for nothing very important can be done in these cases with splints, except inasmuch as they may serve for regulating the position of the limb, and keeping it steady. Hagedorn's apparatus has a slipper, and by placing the foot in it, any direction may be given to this part of the limb, which may be considered advantageous. Ingenious as Hagedorn's plan is, it has not been much employed, chiefly because it is found to be very irksome to the patient. In America, Professor Gibson has taken the trouble to modify the apparatus, by carrying the splint as high as the axilla, and applying to the other limb a splint which extends also as high as the axilla. In London, the double inclined plane supersedes most other contrivances, being preferred to Boyer's long splints, those of Desault, &c.

Gentlemen, when the lower part of the thigh bone is fractured, or when the fissure goes into the knee-joint, it is usual to employ the extended position of the limb in the treatment, for it is found that the head of the tibia is thus kept in contact with the condyles of the femur, and has a most useful operation in keeping them steady. Were it not for this consideration, we should be inclined to advise the bent position of the limb, in order to relax the gastrocnemius and the popliteus, which have a tendency to draw the lower fragment towards the ham; but Sir Astley Cooper, whose experience and judgment are equally great, found that more advantage was derived from the effect of the extended position in bringing the head of the tibia in contact with the condyles of the femur, than from the relaxation of the muscles in question. In such a case, lateral splints should be applied on each side the limb, in order to afford due support to the broken part, and keep it motionless. In these cases, a considerable degree of swelling generally comes on, so that for a few days, the surgeon is obliged to defer the use of splints, and aim at the reduction of the swelling by means of leeches, venesection, cold applications, &c.

Gentlemen, I next invite your attention to *fractures of the patella*, which commonly happen in the transverse direction, and are caused by the powerful action of the extensor muscles of the leg. The circumstance most frequently causing the bone to be fractured in this manner, is that of a person making a violent effort to save himself from falling backwards, when he has lost his equilibrium, for then the extensors of the leg act with immense force to keep the femur and the pelvis forwards, and as the knee is always somewhat bent at the moment, only the lower portion of the patella is actually in contact with the condyles of the femur, over which the muscles break it transversely, as already mentioned. However, this is not the only way in which a fracture of the patella may be produced, for sometimes, if we may credit authorities, it occurs when the leg is perfectly extended. When we hear of cases, in which, the thrust of a gorget into the bladder, in lithotomy, made the muscles of the thigh act so violently, as to break the knee-pan, we may conclude, that the accident happened when the knee was bent, because the position, in which the patient is bound for that operation, would make this tolerably certain; but it is alleged, that the patella has been fractured by the violent action of the muscles in epilepsy, even when the limb was in the straight, or extended posture. The patella may be broken in the longitudinal, or perpendicular direction, by direct violence. Not long ago, a case occurred in the Hôtel Dieu at Paris, where the patella was fractured both in the longitudinal and transverse directions, the bone being split into nearly equal quarters: the accident was of course produced by direct violence, for I scarcely need observe, that such a fracture could not have been the result of the action of the extensor muscles of the leg.

When the patella is fractured, the symptoms vary according to circumstances; in the first

place, whether the tendinous expansion covering the bone be lacerated at the same time that the fracture takes place, is a circumstance making some difference; secondly, much will depend upon the degree of laceration of the capsular ligament. When both these parts are torn through, the upper fragment may be retracted a considerable distance up the thigh, as far perhaps as four or five inches; but if they are not lacerated, the fragments will hardly be separated at all. Of course, when the fragments are much apart, you will not be able to perceive a crepitus; but, if you extend the knee, so as to relax the extensor muscle, you may push down the upper fragment, and bring it into contact with the lower one, and then you will immediately distinguish a crepitus. When attempts are made by the patient to bear upon the limb, it will be found that he cannot support the weight of his body upon it; and he falls forward on his knee. If the upper fragment is completely detached from the lower one by rupture of the tendinous expansion covering them, the distance between them may be increased by bending the knee; so that, in general, when the fracture is transverse, the case is evident enough. But, in a longitudinal fracture, the displacement is not so manifest, and more attention will be requisite to detect the real nature of the accident; but if you relax the extensors, you may generally feel a crepitus in this case also, and with no great difficulty, notwithstanding there may be considerable swelling, in consequence of the species of violence that has produced the accident, namely, a direct blow, or kick; for longitudinal or perpendicular fractures of the patella, as I have already explained to you, cannot happen from the action of the extensor muscles of the leg, but always require for their production direct external violence.

Gentlemen, I may next remark, that the treatment of fractures of the patella consists in paying attention to two circumstances:—one is to relax the extensor muscles of the leg as much as possible, the other is to bring the upper fragment into contact with the lower one, and keep it so. Now, the first object, namely, the relaxation of the extensor muscles of the leg, requires that their lower attachments should be put as near to their origins as possible. The rectus, therefore, is to be relaxed by bending the thigh on the pelvis, by which the patella and the anterior inferior spinous process of the ilium, the insertion and origin of this muscle, are brought into as much approximation as can be effected by position. Now this will partly relax the rectus, but not the vasti and cruralis, which require the leg to be extended. For maintaining the position of the limb which has been specified, the surgeon is to place the leg and thigh on an inclined surface, rising gradually and regularly all the way from the tuberosity of the ischium to the heel, the trunk being also raised on another inclined surface, so as to incline the pelvis towards the thigh. The other circumstance to be attended to, or that of bringing the fragments into apposition, and keeping them so, is fulfilled by pushing the upper fragment down into its proper situation, and applying a roller to the lower part of the thigh, just above the upper fragment. Some surgeons put a few circles of a roller above the patella, and others below the knee, after which the upper and lower ones are laced together with packthread. Some years ago, it was the custom, after the limb and patella had been put into the proper position, to apply a roller a few times round the thigh, above the upper fragment, and then to finish the bandage by passing the same roller round the knee, in the form of a figure of 8; but this figure of 8 direction of the bandage, though it may look well, is of no real use. Sir Astley Cooper first uses a leather strap to keep the upper fragment near the lower one, and then applies another strap, which passes from the first, down one side of the leg, across the sole to the other side, along which it ascends to the circular strap again.

In France, Baron Dupuytren employs the uniting bandage and a compress, which seem to answer very well; indeed, a case is related by Sanson, which he saw treated by Dupuytren with these simple means, where the union was so strong, that when the patient afterwards met with an accident, in which the extensors of the leg were made to act violently, the united part of the bone did not give way, but the ligamentum patellæ. Any of the plans, however, which I have enumerated, may be practised with success; but I wish you to remember, that the maintenance of the limb in the right position is of still greater importance than any roller or apparatus for confining the upper fragment near the lower one. Putting the limb in a fracture-box is a convenient mode of keeping the leg and thigh steadily in the proper posture. The apparatus I now show you will serve to give you an idea of the construction of the fracture-box, from which it only differs in not being so wide and deep, the fracture-box being made more capacious, in order to afford more space for the cushions and pads. But, gentlemen, the principle of each apparatus is the same; and you may observe, that the one now before us, designed for fractures of the leg, is very convenient, as its sides let down, and admit of the limb being examined and dressed without any disturbance of it.

Gentlemen, transverse fractures of the patella generally unite by a fibrous or ligamentous substance, and not by bone. There have been instances, in which a union has taken place by bone, but they are very rare. On the other hand, longitudinal fractures of the patella, occasioned by direct blows, frequently unite by osseous matter. I now show you a preparation, which was taken from a coachman, who fell from his coach-box, and his knee came violently in contact with the pole of the carriage: the consequence was a com-

minuted fracture of the patella. You may observe, that osseous union has taken place. Unfortunately, however, the case had an unfavourable termination; for, too much pressure having been employed, inflammation of the knee joint came on, and the man ultimately died. Here is another specimen of a fracture of the patella produced by direct external violence. You see, that a small portion of it, which was broken off, is united again by means of bone. It sometimes happens, that after the cure of a fractured patella, the patient meets with an accident, in which the extensor muscles of the leg act with such violence that they lacerate the ligamentous substance, which is the usual bond of union in transverse cases; the skin and capsular ligament may even give way, and the knee receive injury of so serious a nature as to call for amputation.

The next fractures, gentlemen, for our consideration, are those of the *bones of the leg*. You would suppose, on looking at these bones, and seeing one of them so strong and the other so slender, that the fibula would most frequently be fractured; this is not the case. The tibia, strong as it is, is much oftener broken than the fibula, and one reason of this is its superficial and exposed situation in front of the leg. In fact, its anterior surface is merely covered by the integuments; and we know that it is the tibia which receives all the weight of the body when a person leaps, or alights with his foot forcibly on the ground. For these reasons, the tibia is more commonly broken than the fibula. The fibula is covered to the extent of its two upper thirds by thick muscles, and the rest of it may be said to be protected by the tibia itself. I may remark, indeed, that the peroneal muscles alone are sufficient to guard it from the effects of ordinary degrees of violence directed against the outside of the leg.

When the tibia is broken singly, the injury is generally caused by direct violence, more especially when the fracture happens at any point of the two upper thirds of the bone. The fracture is then usually produced by a blow, a kick, or the passage of the wheel of a heavy carriage over the limb. The lower third of the tibia may be fractured either by direct or indirect violence, or as the result of what the French surgeons call a *contrecoup*. A fracture of the upper third of the tibia is frequently transverse; but one situated in the two lower thirds of the bone is almost always oblique. When the tibia is the only bone broken, and the fracture is in the upper third of it, it may require some attention, on the part of the surgeon, to discover the nature of the accident, because there is no change in the shape of the limb; for the fibula being perfect acts as a splint, so that there can be no shortening of the member, while the extensive surface of a fracture, in this situation, tends equally to prevent both retraction and displacement. However, you may always trace the slightest inequality of the tibia by passing your finger along the anterior ridge or spine of that bone, and if you do this, and there be a fracture, you will perceive a slight projection, or irregularity, at the part where the fracture is situated. On moving the ankle and knee rather freely, you will also perceive, that, in the exact place of the solution of continuity, the bone, instead of being firm and unyielding, has a degree of motion in it, or yields when pressed upon. If both bones should happen to be broken, then the case will be evident enough, as you will notice a change in the shape of the limb, an angular deformity, the heel being drawn more or less backward and upward by the muscles of the calf. You will also observe a shortening of the limb, and that the foot is twisted either inwards or outwards. Were any other circumstance necessary to convince you of the nature of the accident, you would have such a criterion in the very distinct crepitus that could be felt without the least difficulty.

When the fracture is situated at any point of the lower two-thirds of the tibia, the fissure through the bone will generally extend obliquely from above downwards and from behind forwards. Hence, the extremity of the upper fragment will be very sharp, and frequently protrude through the skin, making the case a compound fracture. When the fibula is broken, as well as the tibia, the latter bone generally gives way first, and then the weight of the body being transmitted to the fibula, this bone also breaks. Such is the explanation offered by Dupuytren, as that which applies to the majority of cases; but sometimes both bones are fractured at once by direct violence, as happens when the wheel of a heavy carriage passes over the limb. Although the fibula is, on the whole, not so frequently broken as the tibia, still the accident is common enough; so common, indeed, that Baron Dupuytren calculates, that fractures of the lower third of the fibula amount in number to one-third of all the fractures of the legs. Now, since this computation was made from the records of the Hôtel Dieu, we may regard it as tolerably correct. Fractures of the upper two-thirds of the fibula are generally caused by direct violence, while those of its lower third are most frequently occasioned by a forcible twist of the foot. The twist most commonly happens in the direction outwards, and, when this is the case, the fibula usually breaks from two to four inches above the external malleolus. When the fibula is broken, in consequence of the foot being twisted outwards, the inner edge of the sole is in contact with the ground, and the upper end of the lower fragment inclines inwards towards the tibia. The fibula may also be broken by the foot being twisted inwards, in which event, the deformity will be different, for the outer edge of the sole will be against the ground; the sole itself will be turned inwards, and the upper end of the lower fragment will be directed outwards, away from the tibia.

Gentlemen, the generality of fractures of the leg may be conveniently treated in the bent position, with the limb supported in splints on the double inclined plane. This position is by far the most comfortable to the patient, and it has the advantage of relaxing the most powerful muscles of the calf. However, when the fracture is situated high up, near the knee, you may keep the limb in the extended position, which, as Sir Astley Cooper well observes, converts the condyles of the femur into a surface, against which the upper fragment may be very steadily maintained.

Fractures of the upper part of the fibula generally unite without any permanent ill consequences, even though they may be neglected, and taken little care of. No doubt, many of them are never detected at all, in consequence of being unattended with displacement. But, gentlemen, I wish you to recollect, that fractures of the lower part of the fibula require more caution, for if they are not rightly managed, the patient will be a cripple for life, the foot will remain distorted outwards, and the individual be obliged to walk on the inner malleolus, instead of on the sole of the foot.

Baron Dupuytren adopts a very simple and effectual plan for the treatment of those fractures of the fibula which proceed from a violent twist of the foot outwards. The whole of his apparatus consists of two rollers, a splint about two feet in length, and a pad stuffed with oaten chaff, much thicker at one end than the other. The pad is applied to the inside of the leg with its thick end downwards, and then the splint is put on, which, by extending beyond the inner edge of the sole, makes a fixed point at a convenient distance from it, against which the foot is kept inclined inwards by means of a roller. The splint is first secured on the pad with a few turns of the roller round the upper part of the leg. If the fibula should have been broken by a twist of the foot inwards, Dupuytren applies the splints and pad on the outer side of the leg.

Some fractures of the leg admit of being treated very conveniently with splints made on the principle of the fracture-box; and the limb must then be kept in the extended position. For instance: certain compound fractures are more conveniently dressed when such a splint or a common fracture-box is used, than with any other apparatus—perhaps not even excepting the double oblique plane. The latter contrivance, however, is what should be generally preferred.

When the *os calcis* is broken, which is a rare kind of accident, the fracture always occurs behind the junction of this bone with the astragalus. The treatment consists in relaxing the muscles of the calf, and applying splints and bandages for the purpose of preventing motion of the ankle.

The matter already delivered on the subject of fractures is as much as it will be in my power to give in the present course of lectures; therefore, gentlemen, if you please, I will commence the consideration of dislocations to-morrow evening.

CLINICAL LECTURES

DELIVERED BY

DR. WILLIAM STOKES,

At the Meath Hospital, or County of Dublin Infirmary, Session 1832–33.

LECTURE IX.

Typhoid Pneumonia—Gastro-enteritis—Diseases of the Skin—Delirium Tremens.

You may remember, gentlemen, that in a former lecture, I drew your attention to the case of a man attacked by typhoid pneumonia. You have all seen the result of this case, and how well our patient has done. He is now, we may safely affirm, out of danger; and as the case has been an extremely interesting one, instructive in its symptoms and termination, I wish to make a few additional observations. This man presents, or did present, one very remarkable character of this low typhoid pneumonia, namely, its tedious and doubtful convalescence. If we compare this variety with the common pneumonia, we shall perceive many points of difference, and one of those is in the mode of recovery. Nothing is more common than, after free bleeding, leeching, and the use of calomel or tartar emetic, to see the fever of ordinary pneumonia rapidly decline, and recovery placed beyond all doubt in a very short period; but the very reverse of this occurs in the typhoid form. In the first place, with respect to the local phenomena, we observe that their removal is effected in a very tedious manner, the hepatisation not disappearing for weeks. There seems to be a want of power, a want of the *vis vitæ* to remove the consequences of the disease. In the next place, such cases are much more liable to be followed by tubercular developement, arising from the continued pulmonary irritation. Again, the general symptoms are extremely persistent; the quickness of pulse, the constitutional irritation, and bodily weakness are very slow in disappearing. In general, it is only where a single organ is attacked that we can hope for a rapid recovery, because in such cases the patient has the advantage of having all the other viscera in a healthy state. But in cases of typhoid pneumonia, where a number of organs are affected, the prognosis must be always doubtful, and the recovery tedious. Many parts are attacked at the same time, and the functions of the whole system are imperfectly carried on. Thus, patients in typhoid pneumonia have exhibited symptoms of disease of the brain, of the abdominal viscera, and lungs; the three great cavities are commonly affected at the same time, or at least two of them; and hence it is that in such instances there is

always danger to be apprehended. Although this patient has been improving for a considerable time, we could not say he was out of danger until to day or yesterday, because, notwithstanding his fever and pneumonia had declined, still there was considerable rapidity and weakness of pulse; and while this continues we are not warranted in saying that our hopes of recovery are well grounded. In the common form of pneumonia, in a sound and healthy constitution, the pulse often comes down long before the termination of the disease, and we can predict our patient's recovery with certainty. In this, as well as in the common pneumonia, we derive great advantage from the use of the stethoscope. We may be led astray when we attend to the pulse alone, its continued acceleration leads us to suspect a persistent disease; but when we make an examination with the stethoscope, we find that the disease is declining, and hence the importance of its use. From a consideration of the nature of this disease it is obvious, that a mild but nutritious regimen is one of the most essential means of cure: we have been giving this patient wine for some time with great benefit. Latterly we have discontinued this, as it appears that he is at present quite out of danger.

In the same ward, gentlemen, there is a case of inflammation of the mucous membrane of the bowels. You remember how much relief was given by the application of leeches to the right iliac region, and how rapidly his headach subsided after their use. This case would appear at first sight somewhat perplexing; but, by considering that this patient has had no irritability of stomach or vomiting, that during the course of his disease he has had thirst, but no desire for cold drinks, and that symptoms of irritation of the lower part of the bowels have been absent, you will be able to infer that it must be inflammation of the intermediate part of the digestive tube. This patient is, however, still in a precarious state, though he derived much benefit from the application of leeches; his tongue is still foul, and he continues very feverish. On Saturday he was very ill; he complained of ardent thirst, his respiration was fifty in a minute, but the stethoscopic signs of disease were insufficient to account for such acceleration of breathing. Now, you all will recollect, that I have often told you that where there is fever and extremely hurried respiration, without any distinct evidence of disease of the lungs or windpipe, we should always look for the source of the disease in the digestive tube, and that this is most commonly found to reside in the stomach. In this man's case we could not, by the stethoscope or percussion, find any cause for the increased rapidity of respiration; but we observed that his belly was swollen and his thirst urgent. We applied the leeches again on yesterday with the most extraordinary benefit; the headach, tympanitis, and laboured respiration were manifestly relieved. An objection might be raised to the efficacy of this mode of treatment, as the improvement took place on the fourteenth day, and it might be said that it was an improvement which depended on a crisis. To this I will answer, that I have seen so many cases of improvement after leeching without crisis, that it is unnecessary to take this into consideration, and that in the present instance there has been no crisis is obvious, as the patient is still in a bad condition. If all his symptoms began to decline on that day, then indeed the effect of crisis might be reasonably inferred, but his original affection still continues; and therefore it is fair to conclude that his improvement is attributable to the remedies employed. There is another point with respect to leeching in gastro-enteritic fever; *we have seen numerous instances of crisis brought on by the application of leeches to the abdomen.* This is a curious circumstance; but I have seen it occur in so many cases that I feel convinced it would not have come on if the leeches had not been applied. I have seen the application of leeches and the supervention of crisis in such close and constant connexion, that I look on them in the light of cause and effect. Can we explain this? If you look to those diseases which have a tendency to terminate by crisis, you will find that they consist of cases in which there is no great preponderance or excess of irritation in any particular organ. Of this simple typhus is one of the most remarkable examples. When there exists a decided point of irritation in any particular part, the tendency to terminate by crisis is much less. Thus we seldom observe a distinct crisis in cases of acute enteritis or hepatitis, or inflammation of the peritoneum. Whenever we bring on a crisis in any disease in which there is distinct irritation of some particular organ or organs, we generally accomplish our purpose by reducing the local inflammation, and placing the organs in such a state as to give nature fair play. This is a point I have not seen sufficiently dwelt on in any medical work, but it is one of great importance, and which I wish to impress upon your minds. I have seen the application of leeches to the abdomen so frequently followed by a crisis, that I consider it fair to connect these occurrences in the relation of cause and effect. In these cases of the secondary inflammations of fever, it would seem that the tendency of the general disease to terminate by crisis, is prevented by the intensity of a local inflammation, which by its sympathetic irritation keeps up a febrile action. Now, if you modify or remove altogether this local affection, you, as it were, reduce the fever to the state of simplicity, and allow the tendency to a critical termination to operate.

A few more observations on this case are necessary. This patient exhibited one peculiar symptom, not generally described in these cases, a very evident pulsation of the abdominal aorta and the vessels which it sends

to the viscera of that cavity. It appears that this is a circumstance of common occurrence, and that in most cases where there is acute local irritation the arteries going to the affected part take on an increased action independent of the heart's impulse. Thus, in cases of whitlow there is a manifest excitement observed in the arteries of the corresponding arm. The same thing I believe takes place in enteritis, and we may look on the increased pulsation of the aorta as arising from enteritic inflammation; when you lay your hand on the abdomen of a patient labouring under this disease, you often feel the vessels beating very strongly, *though neither the heart nor the pulse at the wrist is proportionally affected.* I do not say that we are to look on every case of pulsation of the abdominal arteries as the consequence of enteritis or fever, but where we find it occurring thus in fever, we are to conclude that it is indicative of disease in the bowels. We have constantly noticed this pulsation of the arteries of the abdomen to subside after the application of leeches; we have also seen it decline and increase in proportion to the existing disease; and I think we have many circumstances to prove and warrant us in concluding that it accompanies the disease of inflammation of the mucous membrane.

Another point which I look upon as somewhat new, is presented by this man's case. He had incessant thirst, but his desire was for warm drinks, and he refused cold. We may found a part of our diagnosis on this circumstance. In cases of acute gastric inflammation, patients are harassed by a burning thirst, there is an urgent desire and a constant demand for fluids, but these must be cold, the sufferer generally refuses all others. You will see in any work on toxicology, that in cases of poisoning by corrosive substances, which is only another form of acute gastritis, there is an insatiable desire for cold drinks. In the present instance we find our patient complaining of great thirst, but he prefers warm drinks, and never uses fluids in a cold state, a peculiarity from which I am led to infer that he has no gastritis, but that the inflammation is seated lower down in the digestive tube. When the inflammation is seated, say in the ileum, we have it in a part of the tube less sensible than the stomach. There is the desire for fluids, but not the demand for cold fluids. But when the stomach is the seat of disease, there is both the desire for fluids and relief from the direct refrigeration of the suffering organ. Another important subject for consideration may be noticed in this case. He has had all through his illness more or less tympanitis, a circumstance to which I am anxious to call your attention, as connected with it is one of the worst errors in practice. From a dangerous habit of prescribing without taking the trouble of searching for causes, and from the universal leaning to specificism in medicine, many practitioners are in the habit of giving the spirits of turpentine when called to attend cases of this kind. Several cases have, indeed, been relieved by this plan of treatment, but I deny that tympanitis occuring in the acute stage of fever has ever been relieved by spirits of turpentine. We are to consider the tympanitis of acute gastro-enteritic fever as one of the consequences of inflammation, and its removal is to be effected only by removing the exciting cause. Can this be done by direct stimulation of an inflamed mucous surface with spirits of turpentine? Certainly not. If we give spirits of turpentine, the patient is purged (frequently with great violence), the tympanitis, too, disappears, but the next day we find a manifest increase of fever and thirst, the abdomen is more tender than before, and the tympanitis returns. You may give another dose, but if you do the fever assumes an alarming aspect, marked by the supervention of coma and delirium. Tympanitis we should always consider as one of the symptoms of acute inflammation, and never give turpentine in the commencement of the disease. In the advanced stage of the disease, where turpentine may be employed with benefit, we find the tongue soft, and the abdominal tenderness inconsiderable, and here the safest mode of employing it is by injection.

Gentlemen, there are two cases in the chronic ward which demand a few observations. One of them is that of a boy who labours under very extensive disease. The history of this case is rather obscure. He is the son of respectable parents, but has been of a very wild and thoughtless disposition. Some time ago he ran away from his parents, and took up his abode with some wretched people, among whom he contracted a very bad itch. On returning to his home he got rid of this, but soon after became affected with a new disease, and is at present covered all over with an immense quantity of scales, the eruption showing a disposition to become pustular. These have somewhat the appearance of psoriasis, but an enormous quantity of white scales appear on his body and limbs, which fall off in great abundance.

The first observation which I have to make on this case is, that when such an extensive disease exists on the surface there is great danger in repelling it suddenly. Even supposing it was only a case of itch, and that universally diffused over the body, there would be considerable danger in rubbing the patient all over with sulphur ointment, and suddenly curing the disease. He would probably experience a metastasis of inflammation: he might have the mucous membrane of the stomach or bowels, or lungs, affected, or he might get disease of the brain.

Whenever you are called on to treat an extensive disease of the skin, you should take care to make the cure gradual, and allow the system to adapt itself to the change of diseased action; for when diseased action becomes

chronic, it is a kind of second nature. You will also remember that I mentioned, on a former occasion, that diseases from metastasis are much more difficult of cure than ordinary cases of inflammation. I remember well the case of a very fine healthy peasant whom I saw labouring under a dreadful attack of pneumonia. He had contracted a severe itch, which spread all over his body, and applied for advice at a dispensary, where he got a quantity of sulphur ointment, which he rubbed in assiduously, and was relieved of the cutaneous disorder in a very short space of time. Soon after he got a pain in his side, violent cough, and extensive pneumonia set in, which went on with unexampled rapidity, and finally put a period to his existence. In such cases, therefore, supposing we have any remedy capable of suddenly removing the disease, we should use it with very great caution, as we may substitute a dangerous inflammation for one comparatively harmless. This is one of the great reasons for employing an antiphlogistic treatment in the management of diseases of the skin. In the present instance we might easily remove this boy's complaint by the tar and sulphur ointment; but it is more prudent to act with caution, because, in doing so, we not only cure the disease, but also prevent its metastasis to other parts. What we have done is this: we have kept the boy in bed, placed him on low diet, and prescribed the hydrosulphuret of ammonia. Last year we had great success in treating skin diseases with the hydrosulphuret of ammonia; we gave it in large doses, and, in conjunction with it, employed the warm bath. In disease of the skin warm bathing is doubly useful: it has a direct influence in removing the cutaneous affection, and it tends to restore the cutaneous transpiration, which is frequently a powerful means of cure. In a few days more, if we find no improvement in this boy, we shall adopt other means of treatment; for in such complaints we often find that a variety of remedies is required. However, the gentleman who attends the case seems to think that it is going on very favourably, and his report for this day is, "that the skin appears to be considerably better." A remarkable circumstance in this boy's case is, that although he has been taking the hydrosulphuret of ammonia to the amount of fifteen or twenty drops three times a-day, it has produced no effect on his pulse.

In the same ward you have another case of skin disease, which deserves your attentive notice. The patient has an eruption of a suspicious kind, bearing a very strong resemblance to one of those forms of cutaneous disease which accompanies secondary syphilis. He has also chronic laryngitis; but he denies that he ever had any syphilitic attack. Still, from the peculiar character of the eruption and the co-existence of laryngitis, we have been led to doubt his assertions, and have put him on a mild mercurial course. You will often meet with such cases; the patient will strenuously deny any syphilitic taint, and it is only from the appearance of the cutaneous affection and collateral circumstances that you will be able to arrive at the truth. In the present case the administration of mercury has succeeded in removing the laryngitis, and causing the skin disease to disappear very rapidly. With respect to the former symptom, I have to observe, that of all the consequences of syphilis laryngitis is one of the worst, and the most disagreeable to treat. You cannot employ the same local applications as in common laryngitis; and the general antiphlogistic treatment has been found to be so inefficacious, that it is a common observation, that nothing will do but mercury. We derive, indeed, much benefit from the use of blisters and leeching, but without mercury we seldom hope for a cure. This is a fact which tends strongly to favour the doctrine of specific inflammation, and seems to prove that there are diseases which are capable of resisting the ordinary action of antiphlogistic remedies. Since this patient has been under the influence of mercury his cough is much better, his voice considerably improved, and he swallows with very little difficulty. It would, however, be very incautious to stop the exhibition of mercury on the first appearance of improvement; the disease might again return; and hence we always continue the gentle exhibition of this remedy for some time after symptoms of improvement become manifest.

There is one remarkable circumstance in this case, which you may have also frequently noticed in the common forms of laryngitis. The patient is suddenly attacked with a violent exacerbation of his symptoms: the breathing becomes quite stridulous, the voice is almost totally lost, and the distress of the pulmonary system quite alarming. Now, this may be attributable to two causes—it may arise from inflammation, or it may be produced by spasm. There is nothing, I have to observe, more common in this disease than the occurrence of violent spasmodic fits, without any new accession of inflammation. I say this, because I have, on very many occasions, succeeded in removing attacks of this kind by an antispasmodic treatment.

This spasmodic difficulty of breathing sometimes assumes a very threatening aspect, the symptoms continue for perhaps many hours with undiminished violence; and, I believe it *has frequently happened that tracheotomy has been performed with the intention of saving the patient's life, when the antispasmodic plan would have done infinitely better.* I recollect the case of a patient, in this hospital, who got a dreadful attack of this nature. When we saw him in the morning his distress appeared so urgent that an operation was immediately proposed; and, indeed, his symptoms appeared to warrant the great apprehensions entertained for his safety; for he laboured under excessive dyspnœa, and his

pulse could scarcely be felt. From a careful investigation I was induced to look on the case as an attack of spasm, and determined to try the effect of antispasmodic medicines before we subjected him to the risk of an operation. A combination of castor, valerian, opium, and camphor and lin. æther. was administered, and before the medicine had been taken three times the patient acquired ease, and the breathing was much relieved. It is fair, in many instances of this kind, to attribute the increase of dyspnea and other symptoms to spasm, because if the difficulty of breathing depended on a fresh attack of inflammation it would not come on so rapidly. I would, therefore, recommend you, in cases of sudden exasperation of laryngitic symptoms, to try the antispasmodic plan before you have recourse to an operation; it cannot do much harm, and may be productive of very great benefit. The best mode is to wrap the patient in warm blankets, and plunge his feet and legs into a warm bath. In a short time after this you can exhibit the remedy, repeating it according to effect. In the report of this institution, in the fifth volume of the Dublin Hospital Reports, you will see some additional observations on this subject by Dr. Graves and myself.

The last case which I have to bring before you, is one which I have seen this morning for the first time, and of which I will not say any thing decided. My observations will bear more on the general nature of the disease than on the case in question. The case to which I allude is that of a man in the small ward, labouring under delirium tremens, at present under the care of Mr. Power. I am anxious to make some remarks on this disease, and to impress on your attention some opinions which I have formed, after the most careful reflection, on the subject, because I think delirium tremens a disease which is generally treated in a very empirical way. What is the general treatment of this disease in these countries? It is stimulant. Patients, who are attacked by it, are universally ordered stimulants; whiskey, wine, brandy, and porter are the usual remedies employed; stimulation by ardent liquors is carried to the highest pitch, and in their administration confidence is placed, but any of the senior students, who have attended other hospitals, and seen the consequences of such treatment, must acknowledge that its result is too often fatal. It is, at least, an undoubted fact that many persons die under this plan of treatment, and we should therefore pause before we enter on it, and carefully investigate the peculiar symptoms and history of each case, and endeavour to ascertain whether such a line of treatment be consistent with sound pathology or not. It appears to me, that a common source of error lies in not sufficiently distinguishing the causes of delirium tremens. It is an important law of pathology that similar symptoms may arise from very different causes; we have this exemplified every day in practice; we see the phenomena of inflammation of the brain arising in one case from the presence of too much blood in that organ, in another from an anemic condition. In the same way we may have the ordinary symptoms of hypertrophy of the heart from too much or too little blood.

It would appear, that in some cases of delirium tremens much benefit has been obtained from the administration of stimulants, and on this an erroneous practice has been founded, all cases are considered alike, and all are treated in the same way. My experience, with respect to the treatment of delirium tremens, is as follows: I divide all forms of the disease into two classes, one in which the delirium is the result of an immense debauch, another in which the patient has been in the habit of using ardent spirits in quantities, and has suddenly given up their use. In the former case the disease appears to be the result of excess, in the latter of a want of the customary stimulus. It is a common custom for persons in this country, particularly in the lower classes of life, to take a periodic fit of drinking, or, as they phrase it, to be *on* for drinking. They continue for perhaps a fortnight in a state of constant intoxication, and get delirium tremens from excessive stimulation. Another cause is this; a person who is in the habit of taking a great quantity of whiskey-punch every day happens to meet with an accident; he gets, suppose, a broken leg, he is debarred from the use of his usual stimulus, and the consequence is delirium tremens. Now, when a person happens to have an attack of this kind, from a deficiency of his customary stimulus, the exhibition of wine, brandy, or whiskey is certainly productive of benefit; but when it arises from excess are we to continue the use of stimulants? Certainly not. In a case of the former kind we derive very great advantage from the use of stimulants. We cure our patients principally by means of opium, brandy, and wine, but I must confess, on the other hand, that I have never seen a case of excessive stimulation benefited by such a plan of treatment, nay, more, I have seen many patients, who have been treated in this way, die with symptoms of inflammation of the brain, or stomach, *and have found the diagnosis afterwards verified by dissection.* In all cases where delirium tremens has been the result of excessive stimulation, we have found in this hospital, that the most decided advantage has resulted from an opposite mode of treatment, and that we were able to effect a cure by keeping our patients on a strict antiphlogistic diet, and applying leeches to the epigastrium, followed by an opiate. You are aware, that Broussais first announced the doctrine, that delirium tremens was only an acute gastritis. This I believe is not true; but in a great many instances I believe there is a great deal of gastric irritation, and that much good may be done by relieving it. In some cases, which have been treated in this hospital, *we have suc-*

ceeded in (immediately) *bringing on sleep, in removing the tremors and mental aberration, in fact, in restoring the patient to a state of health by the application of leeches to the epigastrium, without any other treatment.* If a patient be in a state of excessive stimulation, you can easily conceive what organs are most likely to be affected, and you can pathologically explain the injury done by the use of stimulants. The rule I have laid down for myself is this; where the disease proceeds from a deficiency of stimulus, give wine, brandy, opium, &c., but where the stimulation has been excessive, apply leeches to the epigastrium and head, and if the disease still continues, then you may have recourse to the opiate treatment.

LECTURES

ON THE

PHYSICAL EDUCATION AND DISEASES OF INFANTS AND CHILDREN,

DELIVERED

BY DR. RYAN,

At the Westminster Dispensary, 1833.

LECTURE IV.

Hygienic and Morbid Effects of the Generative Function on Parents and Offspring.

Gentlemen,—I have already enumerated the principal causes, both moral and physical, of the disqualifications for marriage, or for the propagation of our species, some of which are incurable, but most of them remediable by the aid of medicine and surgery. It would be foreign to the subject of infantile medicine to enter upon the treatment of the numerous maladies that induce impotence and sterility in both sexes, as I have already described it in the former part of these lectures, and also in my work on Disqualifications for Marriage. On a former occasion I endeavoured to prove, that there are many medicines and aliments, which excite the genital organs, and adduced a host of authorities in support of this position, whose statements must always command respect and deference.

I shall now proceed to describe the *hygienic and morbid effects of generative function.*

At the age of puberty the youth of both sexes experience a train of new sensations, wholly undefinable, which induce an imperious and irresistible desire for coition; a desire much more ungovernable in the male, and if ungratified, the excessive activity of the generative organs causes unsolicited emissions of semen, especially during sleep, or the youth is led by instinct to employ some mechanical means to relieve his irritation when troublesome at other times. This unnatural resource supplies the place of coition, and is even resorted to by the inferior animals. Nocturnal pollution is the result of an excited imagination, and is not injurious to health, unless of too frequent occurrence. It generally happens every nine or ten days to unmarried persons. Diurnal pollution is highly injurious to health from the frequency of repetition. The truth of this position is manifest, if we only reflect upon the phenomena which occur at the moment of the seminal emission, when the sensitive action of the brain is excited to the highest degree of intensity. The collapse which instantly supervenes after a seminal emission, extinguishes all desire for coition, for the same reason that hunger ceases after a repast. When seminal effusion is precocious, or too often repeated, it stimulates the excitability of the whole nervous system, and consequently of the whole body. In the midst of this excessive activity, the slightest morbific cause acts upon any of the important viscera, developes a morbid irritation, which may be followed by great prostration of strength, by convulsions, and even death. This is the reason why coition excites the whole system, the organs of respiration and circulation, expedites the flow of blood, and aggravates chronic diseases. It produces great nervous excitement, and consequent collapse or weakness; it induces the diseases of debility, and hence the danger of this powerfully debilitating cause to delicate persons, invalids, and convalescents. It has been frequently followed by all these evils, and has often caused sudden death.

There is no acute or chronic disease which the abuse of coition or frequent pollutions do not provoke, aggravate, or renew; the viscera of the head, chest, and abdomen are powerfully affected; diseases of the lungs and heart are developed, then those of the brain and nervous system; and, finally, those of the digestive organs and articulations. These pathological remarks accord with the general phenomena which manifest themselves at the completion of coition; the heart palpitates violently, its impulse is felt over the whole of the chest, and even in the abdomen, while the action of the arteries, or, in other words, the pulse, is quickened in every part of the body. We readily conceive that this tumultuous action of the heart cannot be frequently repeated, without producing diseases of that organ, both acute and chronic, which are in general irremediable. The brain is also highly excited, and reflects its action on the chest and digestive organs, and not unfrequently produces convulsive or tetanic spasms in every muscle of the body. At this time the respiration is quick, difficult, and nearly suspended at the moment of the seminal ejaculation. This violent commotion, in which every organ participates, is followed by a depression or collapse more or less prolonged, or by the greatest debility. It must, therefore, be manifest to every one of common comprehension, that the frequent repetition of this violent commotion must be highly injurious to the faculties of mind and body, while the physician must consider it as the cause of an immense number of formidable and incurable

diseases. It has long been observed that the bad effects of copulation are not so manifest in the other sex. We cannot explain the cause of this difference, perhaps it is that man contributes more to the perpetuation of his species. Irritation, inflammation, and excoriation of the genital organs in both sexes may arise from excessive venery, and also leucorrhœa, or whites, and urethritis, accompanied by purulent discharge.

It is a physiological axiom, that when an organ is irritated or inflamed, it affects all parts which are connected with it by nerves; and hence we can readily explain how excessive action or disorder of the genital organs, must affect all parts of the body, because all parts are intimately connected with each other by nerves. In further illustration of this point, I may state, that irritation, discharges, or ulcerations of the genital mucous membrane, may be produced by diseases of remote organs, as the brain, chest, abdomen, skin, and joints. It has been long observed, that the throat, the eyes, and the joints are most commonly affected by metastasis, or sudden suppression of genital diseases. Here we must recollect the change of voice at puberty, and the momentary abolition of vision during coition. I have known cases in which total blindness from amaurosis was induced by excessive venery. Again, the sympathy between all mucous membranes is universally admitted. When the mucous membrane of the rectum is irritated by worms, there is itching of the nose; and when that of the cheeks or gums is affected by dentition, there is irritation in the genital portion of the same tissue. In cases of cynanche parotidea, or mumps, when the swelling suddenly subsides, the testicles, or breasts in the female, become inflamed, and hence the application of irritants to these organs for the cure of the disease. It is needless to illustrate the universal sympathy which exists between all organs of the body—there can be no doubt of the fact. From the preceding statements, the inference is manifest, that coition must have the most powerful influence over the whole body, and if carried to excess, is a fertile cause of an immense number of diseases. This is not the place to discuss its influence in a moral, religious, or physical point of view, but merely as a medical topic, which relates to hygiene and pathology, or as a means of preserving health or causing disease.

Let us now consider the influence of continence upon health and disease. A moderate use of coition regulates the functions of the brain and nervous system, and consequently of the whole body. Absolute continence or abstinence from venery in a healthful subject much disposed to it, induces many dangerous diseases, and sometimes even death. The venereal appetite is seated in the brain, or rather in the cerebellum, is excited by the reproductive organs, and if not indulged, becomes very urgent or sometimes ungovernable, exciting satyriasis, priapism, and nymphomania, which are often instinctively obviated by masturbation. If not so obviated, or by nocturnal pollutions, the morbid condition of the brain deranges the functions of the organs of sense, as vision, hearing, &c., and of thought and volition; and hence hypochondriasis, mania, monomania, apoplexy, epilepsy, convulsions, hysteria, catalepsy, low fevers, disorders of the chest and abdomen, may be the results. But such effects are rarely manifested, inasmuch as absolute continence is very seldom observed by man. It is, however, the ornament of virtuous women, and is well exemplified by the train of nervous and hysterical symptoms, which often render their lives distressing and uncomfortable. Hysteria, in nine cases out of ten, arises from continence. (Louyer-Villermay, Traité de Mal. Nerv.); epilepsy arises from the same cause, (Haller, Buffon, Esquirol, Maissonneux,) and is cured by marriage, (Lauzonius,) and it is also the commonest cause of insanity. (Marc. Med. Leg.) Chaste women are most subject to diseases of the womb, (Gardien, Bayle, Marc, Dict. des Sc. Méd.) and cancer of the breast and womb are most common after the climacteric period, when women rarely contribute to the reproduction of the species (Richerand, Nosog. Chir., Beatty, in Dub. Hosp. Rep. 1830, vol. v., see Cancer, p. 302;) dropsy, and scirrhus of the ovary arise from the same cause. (Gardien, Sur les Acch.)

Chaste people seldom live to extreme old age, (Hufeland, Art of prolonging Life; Buffon, Supplement to Nat. Hist. tom. iv.; Deparcieux on Duration of Human Life; Haygarth, Phil. Trans. 58; Sinclair's Code of Health; Fodéré, art. Marriage, Dict. des Sc. Méd.) This fact may be accounted for by the following causes:—by the weariness and monotony of life, by the hatred of paternity, a pleasure so agreeable to married persons, and by the certainty of leaving property to greedy, thankless relations or friends. This class of persons are often subject to scrofulous enlargements when young, "which are cured by the general excitation that coition occasions," (Richerand, op. cit.); a fact also attested by Wharton, who says, "*Juvenes cœlibes strumosi fiunt: postea vero matrimonio sponte curantur.*"

The old writers considered marriage as the best means of preventing diseases which arise from suppressed perspiration, as the different fevers, congestions, erysipelas, gout, rheumatism, and numerous other maladies. It has been stated by Van Swieten and Murlhavelien, and observed by every attentive physician, that gouty persons are much addicted to venereal pleasure; and here it would appear that nature points out a remedy. Hoffmann informs us, that gout is unknown among the Persians, who obey the law of Mahomet, and consequently are not models of continence.

Marriage removes a vast number of diseases incidental to both sexes. It is the best cure

for hysteria, according to Hippocrates, Forestus, Hoffman, Reid, Boerhaave, Louyer-Villermay, Esquirol, Elliotson, and many others. It removes amenorrhœa and chlorosis, after all other remedies fail. Another of its good effects is pregnancy, which produces the happiest changes in woman, because the determination of blood to the womb suspends, as if by enchantment, a great variety of diseases, by concentrating the vascular and nervous powers in this organ, and arresting irritation and morbid action in remote parts. Pregnancy arrests consumption and hypochondriasis; it exempts women from contagious diseases; it cures chronic affections, as hysteria, chorea, epilepsy, mania, melancholy, ague, &c.; affords the greatest probability of long life, (Hufeland, op. cit.); and, according to Sir John Sinclair, women, though exposed to the innumerable dangers of delivery, live generally longer than those who are unmarried.

It has been urged, on the other side, that pregnancy predisposes to a vast number of diseases, induces a host of moral and physical disorders, exposes woman to much danger during, at, and after delivery. These objections can only apply to women in crowded cities, to the affluent, the subjects of luxury and effeminacy, who cannot supply their fictitious wants, control their passions, their wanderings of imaginations, or excesses of various kinds, which conspire to injure or destroy the best constitution. How much more happy and fortunate are the inhabitants of the country, the poorest peasants, who experience no dangers during pregnancy, nor no alarm during delivery. It is known to all physicians who are versed in the records of obstetricy, that little solicitude is entertained by women in a state of natural simplicity for parturition. It therefore follows, that pregnancy must be considered as a state highly conducive to the health and happiness of woman. Nevertheless, marriage is not a panacea; it cannot be advised indiscriminately, as it aggravates nearly all the numerous disorganisations of the womb and its appendages. It ought to be interdicted when obstacles exist to its consummation in either sex. Both parties should be healthful: "for how can two individuals," says Mahon, "be united by a contract which exposes one to great danger, and renders the other excusable in violating its condition?" (Med. Leg.) In all unfavourable cases, we should pronounce our opinions with great caution and reserve. We have to bear in mind, the rights of nature, morals, religion, and medicine.

When we consider the influence of morals and vicious habits upon youth after the age of puberty, it is manifest that conjugal union should be effected at the time prescribed by the laws of all countries, and thus the ruin of fortune and health would be frequently avoided. I need scarcely state that debauchery and dissipation affect the offspring, and render it delicate or diseased. Precocious, or late marriages, are injurious to reproduction.

Every disproportion in the age of married persons is incompatible with a good union, and is daily illustrated by old men espousing young women, and young men espousing old women. Such unions are contrary to the moral and physical states of mankind. So, also, when either party is in bad health, or labours under any serious chronic disease.

From what has been stated in the physiological part of these lectures, and in my work on Midwifery, it appears that age, season, and climate have great influence on reproduction. It is true, that man, in a state of health, may propagate his species at all seasons and at all times; but still it has been observed, from time immemorial, that to the majority of individuals, certain seasons of the year, and moments of the day, are more favourable than others for sensual enjoyment. Hippocrates said, *spring* was the season most favourable for conception; Pliny called it the genital season. The purity of the air, the freshness of aliment, the bracing effects of temperature, all conspire to the improvement of the functions of the body, the maintenance of health, and conservation of the species. At this season animals and vegetables reproduce, all animated nature is excited, and repeated observation has demonstrated, that there are more infants born in December and January than in any of the other months. *Summer* is not so favourable for the exercise of the genital function, because excessive heat induces perspiration and debility, and enfeebles the whole body. Persons of a lymphatic temperament are more disposed to love in this than in any other season of the year.

Autumn is still more unfavourable to reproduction, as the functions of the body are readily deranged by the sudden vicissitudes of the weather; cholera, dysentery, and ague, are suddenly produced; and it is held, that this season is the most inimical to the exercise of the genital function. *Winter*, from its coldness, is also unfavourable to reproduction. I need only refer to the animal and vegetable kingdoms for attestation of this position.

"Morning," says M. Virey, "is the spring of the journey;" it is the matinal sleep which causes voluptuous illusions; it is the morning in which all the functions of the body are renovated. "Behold the reasons," says he, "which ought to engage us to choose this time to contribute to the conservation of the species, after having contributed to the health of the individual. All the senses enjoy the plenitude of their functions during the day, and this time offers moments favourable to love.*" Coition is improper after a repast,

* Sir Astley Cooper seems to be of this opinion, for he remarks in his lectures on Impotence, that when there is development of the sexual power in the morning it seldom fails in the after part of the day.

as it deranges the functions of the stomach. The process of digestion must be finished; and this is not completed for three or four hours after a meal. However plausible and forcible these observations seem to appear, it must be admitted, that night is as favourable as any part of the day for amorous pleasure.

Allusion has been made, in the course of these remarks, to the ill consequences of excess of venereal pleasure. Nothing, I repeat, is more injurious to the well-being of mind and body, nothing so likely to produce impotence and sterility, and want of family. Nothing more effectually preserves the conjugal love than the birth of an infant; the happiness of the parents is increased when they see themselves revived in their infants; their mutual love receives a new impulse; the cords which bind their family connexions are strengthened; little else is wanted to complete domestic happiness. Those, on the contrary, who are not blessed with children experience daily a diminution of affection; a vague inquietude agitutes them; they are sad, and anxiously seek the cause of their infecundity; apply to medical men for advice and assistance, or too often violate conjugal fidelity.

The first object of such persons should be to endeavour to discover the cause of infertility, among those of impotence and sterility, many of which are curable by the remedies already described in a former lecture. They are to avoid those obstacles to conception which have been enumerated, such as long abstinence, insufficient nutriment, excessive corporeal or mental exertion, an inactive, voluptuous life, too frequent repetition of the nuptial intercourse, and they should use some of the aphrodisiac remedies.

They must refrain from copulation during the presence of menstruation, and employ it moderately during pregnancy, as nothing is more likely to induce abortion. They must also attend to those circumstances which are favourable to conception; as for example,—1st. The use of abundant nourishment, for years of prosperity always augment the number of births. 2nd. The use of certain aliments, which experience has led them to discover as excitants of love, as certain foods already enumerated. Certain fishes, and buckwheat, are said to render the inhabitants of Cologne prodigiously prolific. 3rd. Change of habitation when practicable, as residence seems to have great effect; for example, the inhabitants of Ireland have twelve or fifteen children, the Germans five or six, the French four or five, the Spaniards two or three. 4th. Abstinence from the conjugal act for some days. 5th. Coition should take place immediately after the cessation of menstruation. This was the advice given by Fernel, the physician to Henry III., whose queen, Catherine de Medicis, had not conceived until it was followed. It is said that the equinoxes are more favourable to conception than the solstices, and that the autumnal months are the most unfavourable for propagation. It is always to be remembered, that sexual commerce is proper as often as the genital organs manifest their energy, which must depend on idiosyncrasy or peculiarity of habit, mode of life, and locality, diet, habits, and various circumstances already detailed. Finally, it cannot be prolific unless employed at the intervals of some days.

The proper age for marriage has been already noticed, and that those entering into such a state of life should possess good constitutions, and be free from dangerous diseases. It would be wrong to maintain that parties should be free from all diseases, because there is scarcely one person in twenty who is of a really healthful constitution. Almost every individual possesses the germs of some disease; but as the number and variety of human infirmities are illimitable, and a great proportion of these are of minor importance, and do not prevent individuals from pursuing their avocations and performing their social duties. It is the general opinion of physiologists and pathologists, however, that the constitutions, strength, vigour, dispositions, feebleness, and diseases of infants are transmissible by parents and wet-nurses.

It is also a medical axiom, that excessive sexual indulgence is highly prejudicial to both sexes; that it weakens the mind and body; impedes procreation, enfeebles the offspring, and is the source of all the hereditary diseases of infants.

It is a self-evident proposition, that infirm or diseased parents produce delicate or diseased offspring; and that certain diseases, as scrofula, pulmonary consumption, gout, insanity, idiotcy, epilepsy, syphilis, small-pox, hooping-cough, and urinary calculi, or gravel and stone, with a host of other maladies and deformities, are transmissible by parents. Nevertheless, we daily observe the most unequal marriages taking place between the young and the old, the healthful and the diseased; and we invariably see the issue of such unions feeble, delicate, or sickly,—often incapable of surviving a few minutes, hours, or days. Such offspring are truly miserable; they cannot be reared but with great trouble and difficulty; they are usually cut off by the diseases incidental to infants and children; and if they arrive at the adult age, which seldom happens, they are imperfectly developed, delicate, predisposed to numerous diseases, and generate infants whose constitutions are far worse than their own, who cannot be improved or preserved by either parental care or the resources of medicine. In truth, it would be as unreasonable to expect luxuriant vegetation from a barren soil as healthful or vigorous infants from parents whose natural powers are injured by age, dissipation, or disease.

Numerous other causes influence, promote, or retard the perpetuation of our species.

These are age, habit, temperament, constitution, mode of life, climate, an immense number of diseases, national prosperity or distress, season, habitation, &c., each of which possesses a powerful influence on generation. I have amply considered all these points in the last edition in my work *on Midwifery*, and they have been still more fully illustrated by MM. Velpeau and Villermé. When we consider the influences of these innumerable causes, the intermarriages of the inhabitants of different nations, the illimitable complications of constitution, temperament, habit, and hereditary diseases, we must not be surprised at the varied configuration, strength, vigour, delicacy, defects, and innumerable diseases of the human offspring. In my thesis, *De Genere Humano ejusque varietatibus*, I attempted to prove, and I think I have proved, that the apparent varieties of the human species could be easily and satisfactorily accounted for, by the influence of climate, or extremes of heat and cold, by the difference of soil, situation, cultivation, intermarriages of natives and foreigners, and by the habits and customs of mankind.

It is universally admitted that both parents transmit to their infants, not only the conformation of its external and internal organs, but even their tastes, dispositions, opinions, virtues, vices, and hereditary diseases. It therefore follows, that healthful parents will produce healthful infants, and diseased parents diseased infants. No one can dispute this statement, though the majority of mankind forget it on entering into matrimonial engagements.

The observance of a rigid continence by healthful adults, irritates the genital organs, revolutionises the whole organism, disorders the faculties of the mind, causes sadness, ennui, and a distaste for life. Moderate sexual congress, on the contrary, excites all the organs of the economy, exhilarates the operations of the mind, conveys gaiety to the heart, and renders mankind more amiable, in a word, spreads its benign influence over all the functions of life. Coition, therefore, when used in moderation, contributes to the health and happiness of the sexes; but in excess it is highly injurious and dangerous to the natural condition of the mind and body. The excessive emission of the seminal and ovarian fluids produces the most debilitating effects, which fact has led physiologists to regard these fluids the most powerfully exciting of vitality. In order to acquire a just idea of the effects of the spermatic fluid on the body let us compare man before and after its effusion. In the first case, he offers all the signs of physical force, and also the greatest moral energy. His heart pulsates with force and velocity; all his motions are executed with vigour, readiness, and agility, the fire glistens in his eyes, his countenance is full of expression, his soul is occupied with the most sublime notions, his fertile imagination indulges in the finest ideas, his sparkling genius forms the most perfect productions; by his exquisite judgment he appreciates the conditions of things with astonishing exactitude. His sensible soul is susceptible of the most vivid passions and the most tender and active affections. When he, on the contrary, abuses the pleasures of love, we observe the most astonishing mutation. His senses become obtuse, his thoughts are less numerous, his judgment and reason are perverted, generosity, valour, patriotism, courage, gaiety, and the voluptuous desires which he cherished are replaced by excessive apathy, and the coldest indifference.

"The absorption of the semen," says Virey, "into the economy, impresses an extraordinary activity upon all the functions, on the systems, especially the nervous; hence that warmth of sentiment, courage, force, and impetuosity which puberty developes, hence the disposition to enthusiasm, the fermentation which are remarkable in young heads. But these happy qualities disappear by the abusive profusion of the sperm, or by castration. Exhaustion is a sort of castration, because it renders the organs, decayed by excess of enjoyment, incapable to voluptuarians."

"It is a very dangerous prejudice," says Hufeland, "not to consider marriage but a political institution and a civil contract. Marriage, or the intimate union of two persons of different sexes, has not only for its object the augmentation of the power of the constitution for the procreation and conservation of infants, but the happiness of those that engage in it." He adduces the following valid reasons in favour of marriage, and against celibacy:—

1. United to a companion, attached to his or her family and children, the married person looks upon himself or herself as belonging to the human race, with whose interests he or she confounds his or her own, whilst the unmarried person is generally an egotist, who studies only his own enjoyment, and cares very little for the good of society.

2. The habitude of placing all the affections and happiness in the pleasure of pleasing a husband, of directing all her (a wife's) attention towards the welfare of her family, renders love no longer on animal passion, but a tender and delicate sentiment, capable of captivating the mind, and of preventing that inconstancy and shamelessness which expose to the most fatal excesses, and to the most dangerous contagions.

3. Marriage obliges a man to exert his talents, and to labour, whilst the bachelor is often a wanderer in his affections, idle, lazy, and exposed to a group of extraordinary, sad, painful thoughts, &c.

4. Marriage at once presents the dreadful consequences of the privation and the abuse of sexual pleasure. We know, in fine, that the custom of living with the same person, tends to render one indifferent to the purely

animal passion, whilst variety excites desire, and exposes one to dangerous excesses.

5. Marriage ensures a number of tender pleasures, attendant on the friendship which is established between two persons accustomed to live together, and to direct all their affections towards one common object.

6. The intimate communication of pain and pleasure between married persons, softens the one and increases the other.

7. Our children shed the soft balm of consolation on our last moments.

This celebrated writer also draws just conclusions on the abuse of sexual commerce, and these are, that among the different circumstances capable of abridging life, there is nothing more deleterious than the abuse of sexual enjoyment. He adduced the following physiological reasons in support of his opinions, the substance of which I place before you.

1. The abuse of amorous enjoyment diminishes the vital power, by the loss of fluids eminently vital.

2. It relaxes the tissue (or structure) of all organs.

3. It promptly consumes the internal powers, by the great internal and general excitation that takes place on the emission of the semen.

4. It is injurious to the economy, by disturbing the mind, enfeebling the digestive organs, relaxing the fibres, &c.

5. It enfeebles the intelligence, in consequence of the direct sympathy between the sexual apparatus and the organ of thought.

6. It prevents the procreation of sound and vigorous infants.

7. Impure coition exposes to venereal disease, which poisons the whole system, not only abridges human life, but renders it insupportable. This poison may completely destroy the palate, the nose, and many other parts, deteriorate the constitution, and if of long duduration, cause death. It may remain hidden in the economy for weeks, months, or years, without any external sign of its existence, and destroy every tissue in the body. It is often cured by mercury; but this remedy produces a train of diseases that embitter life, as falling, looseness and disease of the teeth, a feeble languishing constitution, pulmonary consumption, and other diseases of the chest, finally a peculiar disease of the whole skin, termed hydrargyria, or mercurial disease. The bad effects of mercury are so well described in our standard works, that farther allusion to them is unnecessary at present.

POLYPOID GROWTH FROM THE ÆTHMOIDAL CELLS.

Caroline Harris, aged between 50 and 60, was admitted, July 28, 1830, under the care of Dr. Hewett.

The left side of the face, from the angle of the mouth to the orbit, was tumefied, the soft parts a little thickened, the integument tinged with a slight flush. She complained of pain in the cheek, extending to the side of the nose, inner angle of the orbit, and brow. The Schneiderian membrane of both nostrils presented some superficial ulceration. There was considerable purulent discharge from the nose, falling down the posterior nares into her throat, when she lay upon her back. Health tolerably good.

The complaint had begun in the preceding January, when convalescent from a severe attack of erysipelas of the face.

In August she was placed under the care of Mr. Brodie, who immediately punctured the antrum with one end of a pair of scissors, immediately above the first molar tooth. Only fluid issued. Much tumefaction ensued, and for a few days the pain and discharge seemed both relieved. The improvement, however, was temporary, for on Oct. 3, there was more discharge than ever. The gum above the teeth seemed thickened.

Sept. 29th. *Hyd. Sub.* gr. ij. *Opii,* gr. $\frac{1}{2}$, *bis die.*

Oct. 4th. *Sumat pil. semel die.*

6th. *Sumat pil. alternis diebus.*

7th. Mouth very sore indeed. *Garg. alum. Omr. pil.*

11th. *Inf. cascarill.* ʒxij. *T. card. c.* ʒj. *M. t. d. s.*

19th. During the salivation the pain and discharge diminished in some degree, but both have nearly regained their former state.

25th. *Pil. hyd. sub. c.* gr. v. *o. n.*

Dec. 9th. *Quin. sul.* gr. ij. *Acid. sul. dil.* ♏. iv. *Ex. aq. t.* v.

Omr. alia.

17th. *Omr. haust. quinæ.*

Soon after this she was attacked with inflammation and suppuration in and about a bunnion on the great toe. When this was passing away, she was seized with fever of a low type, and symptoms resembling those of latent pleuro-pneumonia. After three or four days she died.

On dissection, no trace of inflammation was found in the lungs, nor any recent organic change of consequence elsewhere*. Attached to the parietes of the æthmoidal cells on the left side was a polypoid growth, organised, not quite so translucent as the gelatinous polypus, not of much magnitude, nor of any regular form.

APOTHECARIES' RETURN TO PARLIAMENT.

It appears by the return before us, that since the 29th March, 1825, to 19th June, 1833, 3788 gentlemen were examined at Apothecaries' Hall; of whom 557 were rejected, and certificates granted to 373 for London, and 2867 for the country. The amount received for same, 22,822*l.* 16*s.*, of which 10,218*l.* 12*s.* went into the purses of the examiners, 980*l.* to the secretary, 465*l.* to the beadle, 226*l.* 16*s.* to Court of Assistants, rent, &c., in all, 18,564*l.* 10*s.*, in which is included the sum of 4604*l.* 5*s.* 3*d.* for law expenses. The prosecutions amounted to 77, and of these 40 were unable to pay the costs, others the fine, some ran away, and others died. The expenses of the Botanical Garden, including lectures, herbarisings, demonstrations, 7143*l.* 3*s.* 8*d.* In 1829, herbarisings, 66*l.*; in 1830, 114*l.*; in 1831, 295*l.*; in 1832, 88*l.*; in 1833, 31*l.* 2*s.* 6*d.*

Such are the statements in the above return, and we leave our readers to comment upon them. They must be struck with astonishment at the fees paid to officers, and at the contrast between the amount of 295*l.*, and 31*l.* in 1831 and 33, when the account is demanded for herbarisings. They must also perceive the happy effects of law towards forty of their fellow practitioners, while chemists, druggists, and all sorts of empirics were unmolested by the Company of Apothecaries. We know that the items in this return have astounded many members of parliament, and have sealed the fate of our friends at Blackfriars. They who received such immense sums have not made a single discovery, or added one fact to medical science. The day of retribution has arrived, and we heartily rejoice at it. We are happy to state that the Colleges of Physicians and Surgeons will be equally exposed.

* We do not believe that the veins of the limb were examined.

Indian Medicine.

Blistering with Nitrate of Silver.

Mr. J. C. Boswell states, that he has succeeded in producing vesication by applying nitrate of silver over a part, first wetted longitudinally and then transversely. Vesication takes place about ten hours after the application, the fluid is allowed to escape, and no covering is placed over the affected part. The surface becomes dry in two or three days, and then a second application may be made. The advantages of this method over lytta are said to be a more immediate and powerful effect, the urinary organs being unaffected, and no dressing necessary. This plan has been tried in pneumonia, phthisis, chronic rheumatism, dysentery, &c., and the effects were described in the fifth volume of the *Trans. of the Med. and Phys. Society of Calcutta.*

French Medicine.

HÔPITAL DES VENERIENS.

New Remedy for Syphilis.

M. Ricord and his colleagues employ the proto-ioduret of mercury in all the venereal cases at this hospital, and with the greatest success. We request our correspondent to inform us of the dose, and the mode of applying this remedy.

Homœopathic Practice in Cholera.

M. Mabit, of Bourdeaux, treated thirty-one cholera patients by the homœopathic method, and lost but six cases. He does not state what

remedies he employed, but the specific of Hahnemann is camphor, and the preservatives white hellebore and acetate of copper.—*Trans. Médicales, Journal de Méd. Pratique, Mai.*

[Hahnemann's practice is now being tried in Prussia, Germany, Italy, France, Geneva, Sweden, and Rotterdam, and a translation of the German system has just been published in Dublin by Dr. Stratten.—Eds.]

Nature and Cause of Cholera.

M. Ledeschault, of Paris, and M. Levicaire, of Toulon, consider that the development of hydrocyanic acid in the economy was the cause of cholera. Its antidote, they suppose, is chlorine or liquid chloric acid, given internally. The former treated eleven patients by this method, with success.—*Journal Complementaire.*

Treatment of Hooping-cough and Measles.

These diseases lately prevailed as epidemics at the same time in Bischwiller and the environs. A vast number of children died. M. Luroth having failed with the ordinary treatment, had recourse to frictions with strong tartar-emetic ointment, rubbed on the chest and epigastrium; the result was most gratifying, and could not possibly be mistaken.

The ointment consisted of a drachm and a half, and sometimes two drachms and a half of the antimony salt, with an ounce of lard; the strength of it was proportioned to the age of the young patients; the strongest ointment was applied to all children above two years of age; half a drachm was rubbed in twice a-day, until a copious eruption of large painful pustules appeared, and this was kept up for a few days by an occasional application of the ointment. Of thirty-eight cases occurring in children, from the age of one to fourteen years, thirty-four were speedily cured by the frictions, combined with emetics and emollients. The period varied from six to twenty-four days; the average was twelve days. The failure, which has not unfrequently attended the employment of this ointment in the hands of others, the author attributes to the insufficiency of its strength, and the want of perseverance in its use. Without considering it an infallible or specific remedy against hooping-cough and the pulmonary complications which so often accompany measles, he regards it at least as by far the most certain means of cure.—*Gazette Médicale.*

[We apprehend that few practitioners, who are mindful of the high degree of sensibility in the skin of children, will follow the above practice. Few children could bear it. Every practical member of the profession will not employ such an objectionable and dangerous mode of treatment; counter-irritation must be applied with great caution to children, and often produces convulsions, ulceration, and death.—Eds.]

Professor Roux's Opinion on the Cause of Death after protracted suffering.

A man was admitted into the La Charité Hospital with an immense tumour on the upper and inner side of the thigh. The operation for its removal was very protracted and painful, in consequence of the deep adhesions to the ossa pubis and ischii.

The patient died on the third day, in a state of alternate stupor and delirium. On dissection, the only morbid appearance observed, was an effusion of serum into the lateral ventricles of the brain. M. Roux stated, that in almost all cases where death is consequent upon very severe suffering, he has found an effusion of serum either between the membranes, especially between the arachnoid and pia mater, or in the lateral ventricles. He has very often noticed it in patients who have died from burns, and more frequently in children than in adults, who can better resist pain. —*Trans. Médicales, et Journ. Méd. Pratiques.*

Death from the Hæmorrhage of Leech-bites.

A young female had twelve leeches applied to the abdomen. The blood had continued to ooze all night, and on the next day she was found bloodless and exhausted, and in spite of the means used to revive her, she sunk. On dissection, all the viscera, especially the heart and liver, were found remarkably pale. To ascertain the probable quantity of blood lost, M. Bricheteau applied a small wine glass to a leech-bite, which at the time was bleeding moderately. In ten minutes he collected three drachms. If the discharge continues, more than two ounces may therefore be lost in an hour, and forty-eight ounces in twenty-four hours, from one leech-bite.—*Archiv. Gén.*

New Remedy.—Kermes Mineral in Pneumonia.

This preparation of antimony, the hydro-sulphuretum rubrum, may be advantageously substituted for the tartar-emetic. In one case, reported by M. Bricheteau, six grains were given the first day, and copious purging was induced; the dose was gradually increased, so that on the fourth day the patient took fifteen grains; the "tolerance" was induced on the second day. The result was quite satisfactory.—*Ibid.*

Neuralgia.

A severe case of supra-orbital neuralgia is mentioned, in which quinine, combined with acetate of morphia, very speedily and decidedly effected a cure.—*Journal Complementaire.*

Treatment of a Goitre Bronchocele by Seton.

In a late case, at the Hôtel Dieu, M. Dupuytren established a free suppuration by means of a seton over the tumour. In three weeks the size of it was reduced by two-thirds, and a complete cure was speedily anticipated.—*Lancette Française.*

[It is not stated whether iodine had been previously employed in this case.—Eds.]

Loss of Memory and of Sight after a Gun-shot Wound in the Superciliary Region.

An officer of the 30th regiment was struck by a ball, which lodged in the right frontal sinus. Amaurosis, as is common enough, of the right eye was the consequence, and almost total loss of the memory of events and objects.—*Ibid.*

Fatal Purpura Hæmorrhagica; Petechiæ in the Brain, Heart, and Lungs, &c.

A case of this kind occurred in a man, aged 32. The constitutional symptoms were those of the most appalling prostration, and the hæmorrhages from the nose and bowels were most profuse, and could not be arrested.

On dissection, there were found numerous petechiæ dispersed over the medullary substance of the brain; each red point was surrounded with a circle of greyish matter. The pleuræ were spotted over with petechiæ; the lungs were generally œdematous, and here and there contained bloody deposits. The external surface of the heart presented numerous petechiæ; there was little blood in the cavities, and that was thin and pale. The parenchyma of the liver was soft and pale; and in the centre of its substance was found an extravasation of blood, a sort of "foyer apoplectic."—*Archiv. General.*

ROYAL COLLEGE OF SURGEONS.

The annual election of officers took place on Friday last, when George J. Guthrie, Esq., F. R. S. was elected President for the ensuing year, and Anthony White, Esq. and John G. Andrews, Esq. Vice-Presidents. We beg to ask the Fellows of the College of Physicians how does it happen that, though their by-laws require the election of a president annually, Sir Henry Halford is always chosen? Is there no other Fellow worthy of the honour.

THE
London Medical & Surgical Journal
Saturday, July 20, 1833.

CERTAINTY OF MEDICAL REFORM.

We announce with delight that there is a positive certainty of the most efficient reform in all the Colleges and Medical Corporations of the United Kingdom; and we take no small share of credit to ourselves for having contributed to this long-wished-for and most beneficial result. We transmitted from time to time all our remarks on the expediency and necessity of reform to the heads of the ministry, and to those members of parliament who took an interest in the subject. We contrasted the laws relating to the profession in this country and France, which made the deepest impression in the proper quarter. The one code approached perfection; the other was defective, absurd, tyrannical, injurious to the profession and to the public. The glaring defects in our laws, which afford no protection to the public or to the profession, against the ignorance and villany of the hordes of unprincipled pretenders to medical knowledge, convinced both the government and legislature that immediate reform was necessary. Fortunately for the cause of humanity and medical science, our Scotch contemporaries commenced the work of reform; and though they have failed to accomplish their design, which we regret to declare was purely selfish, they placed the desirable object under consideration in so strong a light before the legislature, that its success is certain. We can confidently assure our readers, that we are in possession of facts, which place the matter beyond the possibility of doubt; but we are not at liberty to reveal them at present.

We shall now briefly allude to the causes which led to the postponement of the amended Apothecaries' Act until next session of parliament.

This postponement was chiefly effected by the Royal College of Surgeons, who most properly contended, that the members of the Edinburgh College of Surgeons should not be placed over the heads of English surgeons, as demanded by the Lord Advocate, by being admitted to practise pharmacy in England and Wales without undergoing an examination at the Apothecaries' Hall, in London. The Lord Advocate argued that, as the Edinburgh College was a college of pharmacy as well as of surgery, and examined their Licentiates in pharmacy, no farther test was necessary. The president and vice-presidents of the London College replied,—"we have no objection to admit the Edinburgh College on a par with ourselves, but they shall not be a Society of Apothecaries and a College of Surgeons; but we do not acknowledge their members better qualified or entitled to greater privileges than our own. Moreover, it would be highly detrimental to the medical schools in the North of England, and to the numerous schools in London, were candidates allowed, on-

paying 6*l.* for a diploma, to come to London, and infringe upon those who have paid 22*l.* for a diploma, and 26*l.* 5*s.* for an hospital fee." The Lord Advocate was inflexible, the College determined, and the result was, that the latter petitioned the Committee of the House of Commons to be heard by counsel, a request which was refused. The College then told their opponent, that they would have his bill thrown out, both in the Commons and Lords, if he persevered in his refusal; and the consequence was, that the Committee determined to hear more evidence, and to inquire into the state of the whole profession. We rejoice at this determination,—it was what we long laboured to effect; and we are certain it will shake the rotten medical monopolies to their tottering foundation. But before we comment upon the glorious consequences that must result from this inquiry, we must offer a word on the dispute between the College of Surgeons and the Lord Advocate. We think, on the grounds of abstract justice, that the Edinburgh College of Surgeons, having possessed a charter to license in pharmacy for two centuries, are entitled, by the law passed at the time of the union between Scotland and England, granting equal rights to the Colleges, to practise pharmacy in England without the interference of the London Hall. But such a privilege would be unjust towards the members of the London College of Surgeons, whose education is much more expensive, and fully as good as that of their rivals. It is true that the College do not examine in pharmacy at present, and that there is a society appointed by our law to do so. Some say,—but let them examine in pharmacy, and let the Hall be abolished altogether, and the preparation of prescriptions be confined to the members of the Colleges alone. Others think the Hall the best of all the medical corporation; and contend that it has done more good in improving the profession than the Colleges. But if the Edinburgh surgeons be allowed to practise in England, so should the members of the Dublin College, who are as rigidly examined in pharmacy, and therefore the members of the London College only would be excluded. But this exclusion never can be expected, because the parliament, composed of a preponderating number of English noblemen and gentlemen, would never consent to place their countrymen under the feet of Scotch and Irish. We therefore think, that the Edinburgh surgeons must yield, for certain we are, that their influence in parliament is nothing compared to that of the London College. We also feel convinced that the Graduates of Glasgow and Aberdeen are far inferior in learning and respectability to those of Edinburgh, and ought not to have the same privileges under the intended Bill. The examinations in the first and second places are not so strict as at the London Hall. We therefore contend, that the Edinburgh Graduates only,—and these are the best qualified of any physicians in the civilised world,—should be allowed

to practise pharmacy without examination at the London Apothecaries' Hall. Every member of the other Scotch Colleges should be subjected to the examination in pharmacy.

We have been repeatedly asked, why the London College of Physicians approve of the new Bill. We answer, because they think it will lower Edinburgh Graduates, and render them incapable of admission into the College; for no pharmacopolist, until he gives up his calling, can contaminate the purity of our brethren in Pall Mall East. Besides, it is considered, that the fewer Edinburgh Graduates that become Licentiates of the London College, the fewer likely to be troublesome about the fellowship; and, therefore, the Oxonian and Cantabrigian Graduates, who are proverbially distinguished for medical erudition, can alone aspire to the fellowship, together with a few stragglers from the equally stupid sister in Dublin.

With respect to the Dublin School of Physic, we are surprised that they do not claim a similar privilege to Edinburgh, as their course of study is the same; but they seem to want an Irish Lord Advocate to plead their cause. Again, the Irish Apothecaries have sent no deputation to defend their privileges, though many of their Licentiates are persecuted at this side of the water.

MEETING OF THE LICENTIATES OF THE ROYAL COLLEGE OF PHYSICIANS TO FORM AN ASSOCIATION FOR PROMOTING MEDICAL REFORM.

At the eleventh hour, the "minus docti," the "alieni homines," the "permissi," the physicians who dare not presume to enter their own college without a special invitation from the perpetual President and Fellows, have roused from their lethargy, and joined the reformers, as they see success at hand. They arrive too late, however, to claim any share in the glorious victory about to be achieved, and they, on account of their supineness, well deserve the insults and degradation with which they have hitherto been treated by their *superiors*, for so the President and Fellows consider themselves. We are glad, however, that our fellow members of the College of Physicians are no longer "a rope of sand," as the "socii et doctissimi" were wont to consider them, and that they step forward to add the weight of their names to the petitions to parliament for medical reform. Such names as those of Sir Gilbert Blane, Dr. Birkbeck, Dr. Clutterbuck, Dr. Uwins, Dr. James Johnson, and those mentioned in our last number, will have great weight with members of both houses of parliament. Petitions to the Houses of Lords and Commons are now being prepared from the great body of physicians in London, against their unjust step-mother, the "injusta noverca" in Pall Mall East. But, eternal thanks to Mr. Warburton and Mr. Hume, these petitions are scarcely necessary; the die is cast, efficient reform is inevitable.

UNIVERSITY OF EDINBURGH.

GRADUATION OF PHYSICIANS.

On Friday the annual graduation of Doctors of Medicine took place in our University, when the following gentlemen, one hundred and ten in number, received their diplomas:—

OF SCOTLAND.

Somerville Scott Alison
George Arnott
Robert Bartholomew
Charles William Bell
John Brown
Evan Philip Cameron
Duncan Campbell
Donald Cargill
Robert Carlyle
William Dick
Robert Craig Dods
John Douglas
Stevens Fyffe
William Steel Gairdner
James Gordon
John Grant
James Halliday
George Hamilton
George Hannay
Thomas Samuel Hardie
Thomas Howden
Alexander Lorimer
Robert Lowe
Andrew Douglas Maclagan
William Maclaren
Alexander M'Donald
James David Mackenzie
Andrew M'Lean
William Campbell Maclean
James Moffat
John Young Myrtle
George Paton
John Sinclair
George Lillie Smith
John Robert Speirs
James Stark
James Stewart Thorburn
Paul Darling Veitch
Dunbar White
George Wilson.

OF ENGLAND.

William Arpthorp
Martin Barry
William Borman Barton
Samuel Glover Bakewell
James Risdon Bennett
Edwin Blackley
Joseph Bullar
Lawson Cape
Gustavus A. Chaytor
John William Coster
Charles Cowan
John Henry Evans
Ralph Fletcher
John Thomas Harrison Hobbes
Alfred Harper
Robert Hornby
Alexander Macgregor
John Warburton Moseley
John Marshall
Charles William Moore
Charles Nicholson
Thomas Tranmer Peirson
Thomas Peregrine
Charles Ransford
Frederick Snaith
Cornelius Squire
James Richard White Vose
George Bott Churchill Watson.

OF IRELAND.

Michael Campbell
David Carter
Thomas D'Arcy
Richard Doherty
Charles Dwyer
John Peard Edgar
Joseph Enright
Thomas Fitzpatrick
John Flyn
Samuel Arthur Foster
William Geraghty
Thomas Hogg
Henry Stoney Lindsay
Robert Locke

IRELAND.—*continued.*

John Lysaght M'Carthy
William M'Cormick
Gavin Moffat M'Clure
John James Macgregor
Andrew M'Tucker
John M'Cay
Richard Maffett
Thomas Massy
John Motherell
Thomas Purefoy
James Seaton Reid
Thomas Sheilds
James Richard Smith
William Wallace
John Wallis
George Worthington.

OF WALES.

Owen Roberts.

FROM ABROAD.

Patrick Alexander Andrew, East Indies
James Gill Bascom, Barbadoes
John Davidson Barnes, Berbice
John E. Forsyth, Nova Scotia
Thomas William Hunt, Bermuda
Thomas Walter Jones, Canada
James Bell Johnston, Canada
George Paterson, Sweden
James Arthur Sewell, Canada
Laurence Tremain, Nova Scotia
John Rudolph Zeederberg, Cape of Good Hope.

MEETING OF THE TRUSTEES OF THE LIVERPOOL INFIRMARY.

Charges against Dr. Baird, Physician to the Infirmary.

[We copy the substance of the following statements from the *Liverpool Chronicle,* Saturday, July 6th, 1833.—Eds.]

It appears by a report in the above named newspaper, which occupies over six columns of very small type, that a meeting was held on Tuesday, the 2nd instant, for the purpose of considering a report of the sub-committee (of three persons, one a clergyman,) "Appointed to investigate a subject materially involving the interest of the Institution;" and this serious subject referred to certain charges, "of immoral, or at least indecent conduct, on the part of Dr. Baird," who was recently elected Physician to the Infirmary, in the room of Dr. Traill.

It was stated in the report of the sub-committee, that Dr. Baird had instituted a vaginal examination in the case of a *private patient,* whose mother was induced to feel offended at the proceeding; and that the sub-committee requested Dr. Baird to meet them at the infirmary, and there professing the great friendship towards him, like the nefarious inquisitors of old, induced him to make the following admission:—that he had made the examination in question. And he very foolishly added, about that time he had been reading a work on female violation, and took that opportunity of endeavouring to determine, whether it was possible for a medical practitioner to determine if a woman were or were not a virgin. This was the head and front of his offending; although we shall prove, beyond the possibility of doubt, that the patient's condition demanded the examination, we most readily admit, that Dr. Baird acted very injudiciously in our opinion, in having stated to the sub-committee his justifiable and zealous intention;

an intention that has occupied the minds of the most pious, humane, and excellent theologians and physicians of all times, to these non-medical persons, any or all of whom may, for aught we know, possess a mind or minds a thousand times more depraved or licentious than his own. It is much to be regretted, that in all hospitals and dispensaries, there are men appointed on committees totally unfit for such situations, many of them ignorant, uneducated, purse-proud creatures, without a scientific notion in their heads, and who are ever ready to trump up charges against the medical officers on the slightest occasion. In London, our hospitals and dispensaries abound with such plebeians, and perhaps the Liverpool Infirmary is not more fortunate. But in the report of the sub-committee it is stated, "in the course of these remarks, Dr. Baird was repeatedly interrupted by Mr. Monk, (the clergyman,) who told him, that of these professional details the committee are not competent judges, they must be referred to the medical board; our object is to inquire whether you have been abusing the young woman; did she complain that the examination excited her passions, or what complaint was made?" In the whole course of our researches and experience, we have never met with one instance in which a committee of an hospital or dispensary, were so foolish or so impertinent as to call their physician or surgeon to account, for his moral conduct *in private practice,* with which they have no concern whatever. What would the London public think, if a trio of committee-men of Guy's, Thomas's, the Middlesex, Westminster, St. George's or Bartholomew's hospital, summoned Sir Astley Cooper, Dr. Elliotson, Sir Charles Bell, Mr. Guthrie, Mr. Brodie, or Mr. Lawrence, to account for their conduct towards a private patient? We answer, they would be denounced by the press as fools or knaves What would this Liverpool trio think of the practice, which we unhesitatingly denounce as unmanly, unnecessary, and most rascally, of exposing a young female during such an examination as that in question, to the gaze of two hundred students in a London hospital. Here is the grossest misconduct; and yet it was perpetrated within the last two years in a London hospital, and the governors never subjected the insensible officer, who committed this flagrant outrage on public decency and morals, to any censure. That examinations of the female genitals are indispensably necessary in a host of diseases, any man conversant with medicine must admit; and that Dr. Baird's examination was perfectly justifiable, we shall clearly show hereafter; but we contend that there is no utility to ensue from exposing a female to the gaze of young students; because they can derive no knowledge, except from the lips of the examiner.

It was further stated, in the report of the sub-committee, that Dr. Baird stated before his inquisitors, "that Dr. Grindrod and Mr. Minshull (a surgeon), were the only parties from whom the rumour could have proceeded." These two practitioners prescribed for the same patient, whose case we shall subjoin, without instituting a vaginal examination; and in our opinion they ought to have instituted it, because her symptoms were such as characterise disease of the womb, or its appendages. Mr. Minshull was requested by the mother of the young woman, to state whether such an examination was necessary, as she was urged by a silly lodger of her's, who considered Dr. Baird had used her daughter ill, but Mr. M. declined to answer the question. Dr. Grindrod was waited on by two of the committee, who stated they had the consent of Dr. Baird; and the Doctor then said, "that the girl and her mother came to him at South Dispensary, and that the latter complained that Dr. B. had used her daughter ill, had examined her im-

properly, and in such a manner, that she was obliged to remain in bed the whole of the day after. She appeared irritated, and said she would prosecute Dr. Baird." Dr. G. transferred the case to Mr. Minshull, as he considered it a surgical one, the patient having thickening of the integuments on the heel.

Here we must remark, that a private pauper patient of the Infirmary physician, finds her way to the Dispensary physician and surgeon —rivals no doubt—perhaps enemies; and from these the sagacious sub-committee collect evidence to support their groundless accusation. The committee, however, finally resolve—what a set of asses!—"That it is the unanimous opinion of the Board, that Dr. Baird had, by an admission made before the gentlemen of the sub-committee (a jesuitical one), subjected a *private* female patient to an examination of a particular nature, for purposes wholly unconnected with the complaint for which his professional services were required." How, in the name of common sense, could the committee be so stupid or insane as to offer an opinion upon the necessity or impropriety of the examination? We feel convinced they were influenced by some medical man behind the curtain. They never could otherwise have perpetrated such folly if they be men endowed with a particle of common sense. Yes, they had the consummate presumption to declare an examination unnecessary in a case, the history of which was laid before Dr. Carson of their own town, a physician of the highest attainments, as we stated in reviewing his work a few days ago, who declared the examination was necessary and justifiable; an opinion since confirmed by Dr. Elliotson, Dr. James Johnson, and Dr. Paris, which was read at the meeting.

It appeared that Mr. Gibbon and Mr. Monk were the accusers, together with (according to one of the speakers, Mr. Robinson) Dr. Grindrod and Mr. Minshull; but the two last, we are gratified to state, did not attend the meeting. After a boisterous and angry discussion, it was proposed to refer the charge to a medical Board, one of whom to be named by the committee, another by Dr. Baird, and the rest to be strangers. Some gentleman proposed the medical officers of the Manchester or Chester Infirmary, others, a London Board. It was then proposed to hear Dr. Baird's counsel, which was unanimously agreed to; and Mr. Rushton (Dr. B's counsel) made one of the ablest and best defences we have ever read. He commented on all the proceedings of the committee, compared them to the villanous conduct of the ancient inquisitors, and "declared, upon his honour, that he had never heard of such a case of flagrant injustice." He said, that the patient had been confined to her bed for eleven months, was swollen and œdematous, and offered no inducement for the indulgence of amorous passion. The mother and father of the girl were satisfied, in the first instance; and here he would read their statement. (This went to the total exculpation of Dr. Baird.) The learned counsel proceeded, and said, "there was not a shadow of foundation for the foul insinuation, that the examination had not been conducted with the utmost care, attention, and tenderness." The committee did not take the opinion of the medical officers of the institution, but Dr. Baird took the precaution to do so; and he now held in his hand various testimonials of eminent medical authorities to justify the conduct of Dr. Baird as strictly professional. Mr. Rushton then read the following and other testimonials, and pronounced an eulogy on Dr. Baird, which we, who consider that gentleman an extremely ill-used and most unjustly treated physician, insert at length. "The first he would read was from Dr. Paris, a man who had only to be named to secure for his opinion the weight which it deserved." Mr. Rushton then read the following letter from Dr. Paris:—

"Dr. Baird having communicated to me all the circumstances of the case of a female labouring under œdematous swellings of the legs and feet, the right leg exhibiting a varicose appearance of the veins, with an enlargement of the thigh, and glands in the groin, I have no hesitation in saying that he was fully justified in taking any line of examination which such circumstances might have suggested to his mind, and that it was professionally correct that he should have proceeded to ascertain the state of the uterine system.

"JOHN AYRTON PARIS, M.D.
"*Dover-street, June* 24, 1833."

Mr. Rushton also read two other testimonials to the same effect from Dr. James Johnson and Dr. Elliotson. He also stated that he had numerous other certificates, one of them given by a high medical authority, after having examined the female himself; and it was the statement made by this physician, the substance of which Dr. Baird submitted to the distinguished authorities in London. This took away the character of *ex parte* statements from these documents. Did the committee cause such an investigation as this, or did they jump to a conclusion upon their own authority? A case more full of danger he never knew. Mr. Rushton then went on to complain that every obstruction had been thrown, by the committee, into the way of Dr. Baird. The charge was first preferred against him on the 2nd of May, and it was not till the 14th of June that he was able to obtain a copy of the report, although it had been compiled and drawn up prior to the 11th of May. A copy was refused him when he applied for it, and he was ultimately obliged to attend himself at the Infirmary, and copy it from the books. The trustees were now called on to hear a report of evidence, slovenly collected, to say the least of it, and consisting of loose reports of a conversation, and on the strength of this evidence they were required to pronounce a sentence of condemnation against a physician who had led a laborious and useful life, and had acquired a high standing in his profession;—than whom a man more assiduous in the performance of the gratuitous duties of the charity intrusted to his charge, more charitable, more disinterested or zealous, did not exist. The committee of the Dispensary united in recommending him; and one of them assured him (Mr. Rushton) that such was his skill and attention to the poor, that it produced this inconvenient effect, that the patients flocked to the institution in crowds on his days of attendance, in preference to others. They were now called on to stigmatise such a man—to sentence him without a trial, after having stripped him of every privilege which the law of England gives to an accused person. They had called the trustees together to confirm the sentence; and it was made a matter of extraordinary favour that he is allowed to be defended professionally, although, if there ever was a case requiring legal investigation, it was his. Was it proposed, he would ask, to deny him fame, fortune, and every thing valuable, and to consign him to infamy and ruin for the rest of his days, or to give him a fair and impartial trial? If they allowed the inquiry to go on, he had no objections, but let it be before a competent tribunal. Let there be no hearsay evidence, no loose reports of conversations. For his own part, he would candidly say that he never knew such an issue to be perilled on such grounds; he never in his life heard so grave a criminal charge brought forward on such vague and loose evidence. There was another circumstance to which, as the advocate of Dr. Baird, he must allude, although he did so with reluctance. Was there no personal feeling of irritation in the committee? It was the lot of humanity to involve prejudice and feeling in the search after truth. The parties concerned should pause and consider whether they were actu-

ated in any degree by that failing. Why, otherwise, had the copy of the report been withheld, and why had so marked a feeling to the prejudice of Dr. Baird been displayed throughout the whole of the proceedings? It was impossible they could believe that a base lustful passion had existed in this case. The physical state and attributes of the woman combined to repudiate such a conclusion. And what, then, was the charge? That Dr. Baird had rendered the examination subservient to his knowledge of science, a course which was equally practised by every medical man, although all were not so candid in avowing it, or so unfortunate as to be subjected to a committee so chosen. Mr. Rushton concluded by apologising for the time he had occupied in rebutting so unpleasant a charge.

Mr. Gibbon disowned any personal feeling against Dr. Baird, on behalf of himself and the friends around him. It might be necessary to explain why Dr. Grindrod and Mr. Minshull, who had been invited to attend that morning, were not present:—the former gentleman had to go to Dublin and the latter declined to attend; but Dr. Grindrod had stated that he did make an examination and saw no swelling of the limbs, nor was any complaint made to him by the patient."

After much warm discussion, the meeting resolved to refer the charges to the medical officers of the Manchester Infirmary, but, according to a communication from Dr. Baird, which we shall immediately append to this report, no such reference has as yet taken place. It will also be seen by his narration of the patient's case, that he was perfectly justified, and this is our solemn opinion, in instituting the vaginal examination, which gave rise to this harsh, unjust, and uncharitable investigation.

In reviewing the whole proceedings of the trustees of the Liverpool Infirmary, and considering them coolly and impartially, we declare that the sub-committee deserve the censure of every scientific member of our profession, and of every enlightened individual. We cannot be persuaded, but they were influenced by some base, jealous, envious, ill-informed member of our profession, or they never would have ventured to offer the opinion that the examination was unnecessary. But suppose, for the sake of argument, that the whole of the medical officers of the infirmary had so decided, was it charitable to attempt to ruin the reputation of one of their ablest physicians? Should they not have collected the clearest and most positive evidence, before they proceeded a step in the business? and then, having called on the accused for a defence, recommended him privately to resign, and not expose him to the derision of the world. We beg to ask what have they gained by this investigation? In our opinion, nothing but eternal disgrace; for we fully agree with Mr. Rushton, "there never was an act of more flagrant injustice" towards a highly respectable gentleman. What could be more unjust than to attempt to defame him on the suggestion of two ignorant illiterate women, of the lowest class of society, as if there ever was, or will be, a medical officer to a public institution, who, at some time or other, did not, most unjustly, incur the dislike of some ignorant patient? So far as the profession is concerned, Dr. Baird's character cannot be injured, because his conduct was what any physician of judgment must approve, but so far as the public is concerned, his reputation will and must suffer in a considerable degree, and were we in his situation we should appeal to the laws of our country against such calumniators, as it has been his misfortune to encounter in the sub-committee and committee of the Liverpool Infirmary. In fact it would be an act of justice to the profession, to teach governors of hospitals and dispensaries throughout the United Kingdom, that medical officers, who confer the greatest of temporal blessings on the afflicted poor, without fee or reward,

except the inestimable gratification of doing good, should be treated with common respect, and not with that insolence which is generally shown by the low bred, upstart, illiterate men, who generally manage the affairs of such institutions. We could write a volume upon the ungentlemanly conduct of such governors.

In general they want moral courage to attempt to destroy professional reputation,—the committee of the Liverpool Infirmary are the most valiant who have hitherto appeared. We are glad, however, to state, that the trustees and governors at large acted as gentlemen, with the exception of the wrong-headed accusers and their adherents; and the result of their meeting in referring the subject that gave rise to it to competent judges, is a direct censure upon the non-medical wiseacres, who undertook to pronounce an opinion on a matter of which they knew as much as an equal number of bedlamites. The following history of the young woman's case will convince every one of our readers, that Dr. Baird acted properly and judiciously in ascertaining the condition of the organs in the abdomen and pelvis. Every medical practitioner of experience would have acted in the same manner, because the œdema and other symptoms are frequently caused by disease in the abdominal viscera, or in the womb, or its appendages, the ovaries. We can make some allowance for the neglect of the Dispensary medical officers, who, in their hurry, had perhaps had little time for taking a perfect view of all the bearings of the case in question; but we cannot help thinking, that both of them betrayed a want of profound knowledge, or something worse, in not telling the young woman's mother without the slightest hesitation, that Dr. Baird's examination was for her daughter's advantage. The consignment of the patient to the surgeon, because she had a thickening of the integuments of the foot, with œdema, and a broken down constitution, was what we should not have done had she applied to us; for the state of the foot was nothing, compared to the other symptoms, which were purely medical,—the case, in our opinion, belonged to the physician and not to the surgeon. The disease in her foot was insignificant, the œdema was constitutional and dangerous.

In conclusion we have to state, that we do not know a single individual concerned in this unjust affair, and that we animadvert upon the facts as we find them. Our conscientious conviction is, that the sub-committee and committee of the Liverpool Infirmary have intentionally or unintentionally done a great wrong, and are morally bound to use every means in their power to repair it.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—I have taken the liberty of forwarding to you a newspaper, containing a report of some proceedings at the Liverpool Infirmary, together with the annexed statement of the medical facts and history of the case, which is not there given. You will observe, by the report in the newspaper, which is very accurately detailed, that I had, through my counsel, demanded to have my conduct submitted to a medical board,—that the medical officers of the Manchester Infirmary had been nominated, but that no one had been specially appointed to communicate that resolution to those gentlemen. Having since applied to the chairman of the committee of the infirmary, by whom the trustees had been summoned together, to know whether such communication had been made, and if not by whom it should be made; and having received in reply, that he, the chairman, thought the trustees were the only persons who could give me an answer; at all events, from the termination of that meeting, that he considered himself entirely absolved from further interference in the business.

I have, therefore, sent you a statement of the case of the patient, together with the newspaper containing a report of the proceedings connected with it, for the opinion of the profession at large.

I have the honour to be,
Gentlemen,
Your most obedient servant,
D. Baird, M. D.

Physician to the Liverpool Infirmary and Lunatic Asylum.

Liverpool, 9th July, 1833.

Case of J. P. V., æt. 21, a female, who has been in a bad state of health for upwards of two years; within the last six months has been gradually getting worse. She complains of great debility; her breathing is short and hurried upon slight exertion; she has a constant thirst; occasional severe headachs; painful and irregular menstruation, (the catamenia having been suppressed for five months at one time,) with frequent desire to void urine; her legs and feet are œdematous and painful; the veins of the right leg and ankle slightly varicose; with the pains of the hip and thigh. Such was the state of health of this patient when she consulted me in the early part of last March. She called upon me several times, and had some active remedies prescribed, from which she received little benefit. About the end of March she first showed me a portion of thickened cuticle, like a corn, upon the inner edge of the heel. At her next visit, her general health having undergone no improvement, the œdema of the feet and legs still continuing, and the patient, in addition to these symptoms, complaining of a swelling of the thighs, I thought it necessary to propose a private examination, which was readily assented to. In the course of this examination I found the inguinal glands enlarged, but there were no appearances to confirm my previous suspicious of the existence of local uterine disease.

At the present time she is nearly restored to health, after a continued course of alterative medicines, with digitalis, squills, and quinine.

I beg leave also to subjoin copies of the certificates of two medical gentlemen, who had an opportunity of examining into the state of the patient.

The following is from Dr. Carson, an old and experienced physician.

"I do hereby certify, that, on the 23rd of May last, I saw J. P. V. at Dr. Baird's house in Duke-street, where I made a particular examination respecting the state of her health; and am satisfied that if the symptoms of her disease were the same, at the time I saw her, that they were at the time she was first examined by Dr. Baird, this gentleman could not have prescribed, with satisfaction to himself, with safety to the patient, or with the prospect of doing all that the case required, without making the examination that he did. I may be permitted to state, that females are disposed to ascribe all their complaints to a derangement of the genital organs, and, if their medical attendant fails to make such an examination, verbal or manual, as the case may seem to require, they reasonably conclude that he has not obtained all the information respecting their disease that it was in his power to obtain, and cease to have any confidence in his treatment. I may also state, that in no particular are young and careless practitioners more severely blamed by the best writers on female diseases, than for omitting, through a false delicacy, or neglect, to make that examination, for which Dr. Baird has, in my humble opinion, been most unjustly condemned.

"James Carson, M.D."
"*Liverpool, June 6th,* 1833."

"My dear Doctor,—I recollect examining a young woman of the name of J. P. V. at your request,—the right leg and ankle were swelled, and the superficial veins enlarged and varicose. There was a little thickened portion of skin on the side of the

heel, which partook of the nature and appearance of a *soft corn*, and did not require surgical treatment.

"Believe me yours very truly,

"JOSEPH CHURTON,

"*Member of the Royal College of Surgeons, London.*"

"*Liverpool, June 27th*, 1833."

Reviews.

Clinical Lectures on the Contagious Typhus, epidemic in Glasgow and the Vicinity during the Years 1831 *and* 1832. By RICHARD MILLAR, M. D., Senior Physician to the Royal Infirmary, and Regius Professor of Materia Medica in the University of Glasgow. 8vo. pp. 144. Glasgow, 1833. Black and Co. London: Longman and Co.

CIRCUMSTANCES, over which we have had no control, prevented us from noticing this sensible and judicious essay a week or two since; but we have some excuse to offer in the negligence of our contemporaries, every one of whom is in the same situation as ourselves, for not one of them has as yet noticed this judicious production. The subject of which it treats has long engaged our earnest attention, as it leads to the destruction of an immense number of our fellow subjects, both at home and abroad, and has long occupied the attention of the ablest physicians of this country. It is generally considered, that fevers destroy two-fifths of those who are cut off by diseases in the British dominions, and therefore the nature and treatment of these maladies demand the utmost consideration from our profession. We might enumerate the names of the most illustrious physicians of this country, who zealously studied the subject; nevertheless, it is not as yet fully elucidated, or, to use a legal phrase, is *sub judice*.

The writer before us follows a rational and straightforward course, in describing the symptoms of fever, which he observed at a certain period —1831 and 1832—in a certain district. He thinks that fever ought to be discussed in a practical and theoretical point of view; bu the confines his remarks to what is termed contagious typhus. He divides his lectures into two sections, practical and theoretical, in the first he describes the symptomatology or diagnosis, etiology or causes, prognosis, and treatment of typhus during the preventive, confirmed, and convalescent stages, including the various remedies and prophylactics: in the second, he expounds crisis and critical days, and the pathology, in which he describes the opinions of the localists or inflammationists, to which he adds the results observed in hospitals, the rate of mortality, causes, specifications of fatal cases, with dissections, and, lastly, the prophylaxis.

We have much satisfaction in expressing our opinion on the merits of this production; and are gratified to declare, that it shows sound judgment, careful and faithful observation, and great experience. It is an impartial and candid review of the principal doctrines on typhus, by a physician of high attainments and great experience, and it eminently deserves the mature consideration of the profession. We strongly recommend it to every member of the faculty who is engaged in practice.

Petition addressée à la Chambre des Députés par M. CHERVIN, de l'Académie de Médecine, à l'effet d'obtenir la Publication de l'Enquête faite par le Gouvernement sur la conduite de ce Médecin, et sur la Contagion, ou Non-Contagion de la Fièvre Jaune, et surtout pour appeller l'Attention de la Chambre sur la nécessité d'une prompte Reforme dans notre Système, et notre Legislation sanitaires.

Petition addressed to the Chamber of Deputies by M. CHERVIN, for the purpose of obtaining the Publication of the Government Investigation of the Conduct of this Physician, and on the Contagion or Non-

Contagion of Yellow Fever, &c. and on the necessity of Reform in our sanitary Legislation, &c.

THE petitioner is well known to the medical world as one of the French commission, who visited Gibraltar for the purpose of investigating the nature of yellow fever. It appears, that he was thwarted by some of his own countrymen, and by our commissioners, both of whom he flagellates very severely. His object is to prove the non-contagiousness of yellow fever, cholera, &c.

M. Chervin is the ablest non-contagionist of France, and no other individual has taken more pains to investigate the nature of yellow fever, typhus, and cholera than he has done. In 1827, the Academy adopted his reports and afterwards rejected them, but in 1828 the Academy of Sciences awarded them 10,000 francs. His greatest triumph, however, was, that the government diminished the public tax by sixteen hundred millions of francs for the lazzarettos. The contagionists, of course, intrigued against our author, and it was only in 1830 that he discovered their clandestine conduct. He now demanded the publication of his papers, but was repeatedly refused, under the pretext, that the publication was useless and inconvenient, as if it was not eminently useful or convenient to proclaim facts, whose object was to diminish public expense, and to extinguish the fears and apprehensions of the citizens. M. C. however considered it a question of loyalty, and one of national and universal interest; under this impression, and for the reformation of the sanitary code of his native country, he determined to publish his observations. He relates the result of his laborious investigations of six diseases, against which sanitary regulations were employed. These are the following: *small-pox*, which he maintains can only be prevented by popularising vaccination; *typhus*, which can only be arrested by improving public and particular hygiene; *lepra*, which is not transmissible; *cholera*, which is not contagious, and *yellow fever*, which is not less refractory by isolation. As to the *plague*, he offers to submit to inoculation. He wishes for an opportunity to discuss these questions before a European congress. Lastly, he traces a deplorable but true table of the bad effects of contagion. Much to his honour the Chamber adopted his petition, and ordered it to be placed before the minister of commerce and of public works.

This is an exceedingly interesting brochure, and approaches the nearest to Hamett's Graphic Description of Cholera at Dantzic, of any of the multifarious productions we have seen. It proves the author to be an enlightened, honest, and scientific physician, and will hand his name to posterity, when his calumniators and opponents will be consigned to the tomb of the Capulets.

LITERARY INTELLIGENCE.

DR. BURNE is preparing for the press a Treatise on the Causes and Consequences of Constipated Bowels.

BOOKS.

The Mother's Oracle for Health and the Proper rearing of Infancy. 12mo. pp. 32.

The American Cholera Gazette. Edited by ISAAC HAYS, M.D. Nov. 1832.

This number contains an admirable account of the pathology of cholera.

CORRESPONDENTS.

*** Several communications have been refused on account of postage. We are astonished how persons can write to us about their private affairs or opinions, and put us to the expense of their correspondence, which to us may not be of a farthing's value. In future we shall publish the names and addresses of such correspondents.

J. T.—Our correspondent's remonstrance is very unjust and uncalled for. He cannot think we ought to effect impossibilities. We have answered him in a former number. We have not promised Dr. Ryan's lectures on Diseases of Children, or on Materia Medica at the Medico-Botanical Society, though they will appear as often as his leisure will permit.

Mr. R., of Burnham, Bucks, will find the information he requests in our 73rd number.

ALL Communications and Books for Review to be forwarded (free of expense) to Dr. Ryan, 61, Hatton-garden, or to the Publishers, 356, Strand, near King's College.

THE

London Medical and Surgical Journal.

No. 78. SATURDAY, JULY 27, 1833. Vol. III.

LECTURES

ON THE

PRINCIPLES, PRACTICE, & OPERATIONS OF SURGERY,

BY PROFESSOR SAMUEL COOPER.

Delivered at the University of London, Session 1832—1833.

LECTURE XLVI., DELIVERED JAN. 31, 1833.

Gentlemen,—I informed you yesterday, that the museum of this University does not contain any specimens of transverse fractures of the neck of the femur, entirely within the capsular ligament, which have united by bone. I was, therefore, induced this morning to request my friend, Mr. Langstaff, whose museum you know is rich in pathological preparations, to lend me, for your inspection, an unequivocal example of the kind of fracture referred to, united by osseous matter. The particulars of the case, from which this preparation was taken, are published in the Medical and Chirurgical Transactions. You perceive, that the bony union is complete in the shell of the bone; the centre of the fissure is united by a fibrous substance, but the osseous consolidation of it is perfect at its circumference. The same preparation also illustrates the remarkable shortening of the neck of the femur, which usually takes place after a fracture of that part. Here, gentlemen, is a drawing of the same preparation. The patient, if I remember correctly, lived nearly two years after the accident. Another unquestionable instance of perfect union by bone, after a transverse fracture of the neck of the femur, within the capsular ligament, is exhibited in the case of Dr. James, an English physician, who fell from his horse as he was riding near Bourdeaux, and fractured the neck of the femur; he recovered from the effects of his accident, but died seven months after it of some visceral disease. On examination, the fracture was found, by Dr. Brulatour, an eminent surgeon of that city, to be united by bone, and you see, from the drawings of the part, that it was a transverse fracture of the neck, completely within the capsular ligament, that is to say, not extending beyond it. The drawing is valuable, not only on account of its showing a perfect bony union of a fracture within the capsular ligament, but also because it gives you an accurate representation of the diminution in the length of the neck of the bone, arising from absorption: you may remark, that Dr. Brulatour has likewise given a view of the size and shape of the head and neck of the femur in the natural state. Thus you are enabled to see at once the difference, which has been produced in the length of the neck of the bone, and in the position of its head, with respect to the trochanters; it being, as it were, situated between them, with scarcely any portion of the neck remaining. Dr. Brulatour has also favoured us with a section of the head and neck of the femur, which was the subject of the injury. Other drawings on the table I have likewise brought from Mr. Langstaff's Museum: they show the various ways, in which nature attempts the reparation of fractures of the neck of the thigh-bone. This drawing exhibits an immense quantity of bony matter, thrown out by the portion of the neck, or the fragment, which is nearest the trochanter-major; you also see the thickening of the capsular ligament. The next drawing was made from a case, in which anchylosis had taken place; and that, which I now pass round, is a view of an oblique fracture of the neck of the femur, in which you know there would not be much, if any, retraction: you may observe that bony union has occurred at the outer part of the fissure, while the rest appears to be united by a fibrous substance. The drawing, which I now hand to you, shows the efforts which nature has made to repair the fracture of the neck of the femur, by throwing out a vast quantity of bony matter: I remember the gentleman very well from whose case the drawing was made. He resided near St. Bartholomew's, and met with the injury by falling from the upper part of his house into the street; he lived several years after the accident, but was

quite a cripple. You see that the callus has formed a sort of new acetabulum, which, together with the increased thickness and strength of the upper portion of the capsular ligament, enabled the patient to use the limb in a certain degree. Here, gentlemen, is a preparation, which also belongs to Mr. Langstaff's Museum, who has been so kind as to accommodate me with it; the fracture is within the capsular ligament, and the union, by means of a ligamentous fibrous substance, retains the fragments in such close contact, that Mr. Langstaff is of opinion, that, if the patient had lived long enough, the case would have terminated in bony union; but this I mention to you only as a conjecture.

Gentlemen, when I was on the subject of fractures of the patella, I believe that some notice was taken of the effects of the injury extending into the joint. I now show you a preparation, taken from a patient, in which very serious disease of the knee-joint, inflammation of the synovial membrane, abscesses, and absorption of the cartilages, followed a fracture of the patella.

The next subject which we come to, gentlemen, is that of *dislocations*, which I scarcely need observe is one of considerable importance, and one which cannot be scientifically comprehended without a great deal of correct anatomical knowledge in relation to the bones, ligaments, and muscles.

When the head, or the articular surface, of a bone is thrown from its natural situation, with respect to the corresponding articular cavity, or surface of another bone, in, or upon which, it naturally lies, the accident is termed a *dislocation* or *luxation*. In some dislocations, the head of the bone is thrown at once and directly into the place in which the surgeon finds it; in other words, it remains in the situation where it was first thrown, and does not quit it. But in certain other instances, the head of the bone undergoes a further change in its situation, in consequence of the action of muscles. Hence dislocations have been divided into *primary* and *secondary*, or, as it ought to be rather expressed, into *dislocations* with *primary* or *secondary displacement*, for the dislocation is of course *primary* in both cases, but the kind of displacement will admit of the distinctions grounded upon the principle now adverted to.

Dislocations, like fractures, are divided into *simple* and *compound*; and, perhaps, this is the most important of all the general divisions of the subject. *Simple* dislocations are unattended with any external wound leading into the joint. Whereas those, which are accompanied with such a wound, that is, a wound penetrating the integuments, and opening the synovial membrane, are termed *compound*. Dislocations are further distinguished into *old* and *recent* ones; which is also a very practical view, because when a certain period has elapsed from the accident, without the bone having been put into its right place again, the reduction becomes impracticable; whereas *recent* dislocations may in general be reduced with the greatest facility. As a general fact, I may tell you, that the longer a bone has been out of its place, the greater will be the difficulty of reduction. Another difference in dislocations depends upon the circumstance of their being *complete* or *incomplete:* by the phrase *complete dislocation* surgeons mean that the articular surfaces are entirely separated; in an *incomplete*, or *partial dislocation*, they are yet more or less in contact.

When a dislocation arises from diseases of the bones, or from too great a looseness of the ligaments, or other morbid changes of a joint, it is termed *spontaneous*, an expression by no means very judiciously chosen. Besides the preceding varieties, I have to direct your attention to other cases, which have been so satisfactorily explained by Baron Dupuytren, and which he calls *original* or *congenital*, being produced neither by violence, nor accident, nor by any peculiar disease of the joints, but from an original imperfection of the acetabulum, and occurring, therefore, at birth, or, as it is conceived, before birth. These *original* dislocations, I believe, have not received any consideration in England; and, as far as my information reaches, only three continental surgeons have devoted particular attention to them: namely, Paletta, who first touched upon them; then Delpech, of Montpellier; and, lastly, Baron Dupuytren, who has given the fullest account of them.

It appears that, in the course of about twenty years, Dupuytren has met with twenty-six examples of this species of dislocation, and out of these only three or four were in male subjects; and hence he concludes, that they are more common in females than the other sex, which circumstance may be partly owing to the greater liability of females than males to malformations and incomplete developments in general.

The most important differences of ordinary dislocations may be referred to the following circumstances, namely:—

1. The kind of joint, in which the dislocation occurs.
2. The extent of the dislocation.
3. The direction, in which the bone is displaced.
4. The length of time, which the dislocation has existed.
5. The absence, or presence, of such a wound, as would render the case compound.
6. The complication of the dislocation with a fracture, or some other perplexing circumstances; and
7. The causes by which the articular surfaces were separated from one another.

Now, gentlemen, with respect to the *kind of joint, in which the dislocation takes place*, I may observe, that you must not always estimate the severity of the case by the size of the joint, as you would in fractures and diseases of the joints in general: in these latter

examples, you may say correctly, that the seriousness of the accident or disease, *cæteris paribus*, is in a ratio to the size of the joint. But this remark is so far from applying to dislocations, that some dislocations of the thumb are more serious than those of the hip or shoulder: they are often exceedingly difficult to reduce, and have sometimes baffled surgeons of the greatest eminence; whereas dislocations of the hip and shoulder can always be reduced with certainty, if the attempt be made in good time. I will merely add, in relation to this point, that it is only when a dislocation is attended with a wound, communicating with the cavity of the synovial membrane, that the size of the joint becomes a consideration of primary importance.

Every kind of joint is not equally liable to be dislocated; some are hardly ever known to be in this state; and I may say, that with the exception of that which takes place between the atlas and the vertebra dentata, the whole vertebral column is scarcely susceptible of simple dislocation. The pieces of the spine are, indeed, articulated together by extensive and numerous surfaces, so diversified in their form and direction, and so powerfully bound together by ligamentous and elastic substance, that the motion between any two vertebræ is exceedingly trivial; and, you will find, that those joints, which have but a very limited insignificant degree of motion, are generally but little exposed to dislocation. It is true, that sometimes the articular or oblique process of the vertebræ are luxated, but never unless there be at the same time a fracture of their bodies, as you will find illustrated in the instance related by Mr. Barlow, of Writtle, in Essex, in a volume of the Medical and Chirurgical Transactions, recently published: in this case, there was a fracture of two of the bodies of the vertebræ, and a dislocation of the articular processes. Then, gentlemen, I may observe, that the strength of the articulations of the bones of the pelvis hardly ever yield, so as to allow of the occurrence of a dislocation or separation of the articular surfaces, unless the force applied be of that irresistible kind, which causes also at the same time a fracture of this strong and thick part of the skeleton, at once strengthened by its shape and the thickness of its bones, and protected from external violence by large masses of muscle, arranged over a considerable portion of its exterior surface.

Gentlemen, let me advise you to remember well, that those joints, which are contrived for the performance of extensive and very diversified motions, are generally the most liable to dislocations. Hence, what are termed the *orbicular*, or *ball and socket joints*, furnish the greatest number of examples of dislocation; while the *ginglymoid*, or those which admit of only a hinge-like motion, are less frequently the subject of such an accident: in them, the articular surfaces are generally broad; the ligaments more numerous and strong; and the eminences and depressions of the articular surfaces so adapted to one another, as to render a considerable degree of force necessary to produce a dislocation. In fact, such an accident cannot well happen, unless the violence be applied directly to the joint. Even when it does happen, the articular surfaces are rarely quite separated, the case being only an *incomplete*, or a *partial* dislocation. But *enarthrosis*, or *orbicular joints* may be dislocated by a force applied at the other extremity, or at a distant part, of the limb, as commonly happens in the shoulder, where the long lever of the arm acts in producing the displacement of the head of the humerus by tilting it, as it were, in some direction or another from the glenoid cavity of the scapula. Most frequently the lower part of the humerus is thrown suddenly and forcibly upwards, and the head of it is thrown downwards into the axilla; in which direction, the pectoralis major and latissimus dorsi, may also pull the head of the bone during the kind of alarm, in which they may be conceived to be at the time when the patient is falling. Then, gentlemen, you should understand, that dislocations of orbicular joints are not only more frequent than those of ginglymoid ones, but present another difference, which is, that they are almost always *complete*. To this observation there are, I believe, but few exceptions. You know, that by the phrase *complete* dislocation is signified a case in which the two articular surfaces are entirely separated, or not in contact at any one point. Dislocations of orbicular joints, then, I wish you to remember, are almost always complete. At this moment I recollect only two exceptions to this statement; one is when the head of the humerus is partially luxated forwards, so as to lie on the outer side of the coracoid process, in which event a portion of it is still in contact with the glenoid cavity; but then, gentlemen, this is an unusual kind of accident. The other instance, in which you may have partial dislocation of a ball and socket joint, is that which sometimes takes place between the astragalus and the os naviculare. As for the ginglymoid joints, the obstacles to a dislocation of them are so much greater, the articular surfaces are so much wider, and the ligaments so materially stronger than in orbicular joints, that *incomplete dislocations* are far more frequent than *complete ones*. Thus in the ankle, knee, and elbow, incomplete dislocations are beyond all comparison more common than complete ones. For instance, in the ankle, the lower end of the tibia may be partially dislocated, one portion of it continuing on the astragalus, but a larger part of it resting on the os naviculare.

Then, I have told you that orbicular joints are for the most part dislocated by violence applied to another part of the limb, sometimes a remote part of it; but dislocations of ginglymoid joints are usually produced by violence applied directly to the injured joint itself. On

this account, dislocations of ginglymoid joints are frequently attended with severe contusion, and followed by a great deal of inflammation and swelling. You would naturally expect this to be the case, for the blow that causes the dislocation by violence acting directly on the joint, cannot leave the soft parts uninjured. The same circumstance will make it obvious to you, that the sooner dislocations of ginglymoid joints are examined the better; for the swelling of the soft parts comes on with great rapidity, and even if it should not render the diagnosis obscure to a well informed surgeon, it would undoubtedly make the requisite examination of the joint severely painful. But, gentlemen, you would certainly recognise the case more easily directly after the accident, than at a later period, when inflammation and swelling had come on.

In the next place, gentlemen, with respect to the *extent of the dislocation*, which is one of the circumstances which I have enumerated as affecting its character and seriousness, and as making it either *complete* or *incomplete;* this is a topic on which I have very little to add to what has been already stated. I have told you that, with very few exceptions, the dislocations of orbicular joints are always *complete*, and those of the ginglymoid ones *incomplete*. The lower jaw is subject to a kind of dislocation, which is sometimes termed *partial*, or *incomplete*, in a different sense from that usually conveyed by this expression, namely, to a dislocation of one of its condyles, while the other remains in its proper situation. The dislocation is here *complete*, however, on one side, according to the meaning of the term, as applied to other luxations.

Gentlemen, another circumstance, making a difference in dislocations, is *the direction in which the bone is thrown*. In orbicular joints, the head of the bone may be thrown out of its place at any point of the brim or circumference of the socket; and hence dislocations of these joints are divided into those which occur *upwards*, *downwards*, *forwards*, or *backwards*, or in one of these four directions. Ginglymoid joints may be luxated to either side, the accident being then termed a *lateral* dislocation, the heads of the bones may be thrown *forwards* or *backwards*, so that here also the dislocation may happen in any one of the four directions specified.

Another circumstance, making a vast difference in the seriousness of the case, and in the difficulty of cure, is *the length of time that has transpired since the accident*. I may tell you, gentlemen, that no consideration more materially influences the prognosis. I have already stated, that *recent dislocations* may generally be reduced with the greatest ease and certainty, and the limb or part is soon restored to its functions; but when the bone has been out of its place for several days, and especially when it has been so for several weeks, then the reduction will be attended with greater difficulty, and indeed sometimes when the dislocation has existed a few weeks, or months, the reduction is impracticable. Yet you will find, from what I shall presently mention, that you ought not to renounce all hopes of effecting a reduction, though the dislocation may have continued for two, or even three or four months, for you will learn, that Baron Dupuytren has reduced a great number of dislocations, which had existed for three months, and some even between three and four months. But the fact is, that you will not generally succeed after so long a time, because the muscles become shortened, and adapted to the altered length of the part or limb, and sometimes the head of the bone acquires new and unyielding connexions, while in other instances, even a new socket is formed for its reception, and new ligaments bind it in its present situation; and besides these great impediments to the success of any attempt at reduction, remember that the natural socket may become partially or completely obliterated. When the head of a bone has been long dislocated, it undergoes a change of shape, and diminution in its size, specimens of which fact we have in our museum, and which I now show you. These are examples of such change in the head of the humerus; but we have one of the upper head of the radius, where, instead of a diminution of it from long continued dislocation, it is more developed than usual, a circumstance illustrated also in one of the valuable engravings published by Cruveilhier.

An opinion, formerly entertained, that a difficulty of effecting the reduction of a dislocation after a certain time, and especially of the reduction of an orbicular joint, depended on the closure of the laceration in the capsular ligament, is now, I believe, universally renounced, as not agreeing with what careful dissection reveals. The most experienced surgeons do not admit that any great opposition to the reduction of a dislocation can ever depend upon the resistance of the capsular ligament.

A fifth circumstance, making a considerable difference in the seriousness and even danger of a dislocation, I have already mentioned, namely, the *absence or presence of such a wound as would render the case compound*. When a wound of this description does exist, then the size of the joint becomes also a very important consideration. In a simple dislocation, the size of the joint does not in general materially affect the prognosis; but in a compound dislocation, this is a thing of the first importance, because in a compound dislocation of such a joint as the knee, or even in a bad one of the ankle, when, in addition to the wound communicating with the joint, there is much laceration of the ligaments, and great injury done to the soft parts, amputation may be indispensable. In dislocation of the knee, if the joint be extensively laid open, and the soft parts much injured and lacerated, you will also generally act with judgment when

you amputate without delay. However, before deciding on amputation in less unequivocal examples, you would consider the extent of the laceration of the ligaments, the size of the opening in the joint, and whether it be direct and free, or only indirect and small; you would also consider what other mischief the dislocation is complicated with, and what chance there may be of procuring union by the first intention; for here the indication is the same as in compound fractures, to procure speedy union of the external wound by the first intention, and thus convert the case as nearly and as soon as possible into a simple dislocation. You would also consider what sort of a constitution you had to deal with, as well as the age or youth of the patient. Indeed, let me observe, gentlemen, that in these compound dislocations of large joints, you will have as much nicety of judgment to exercise as in bad compound fractures.

The sixth circumstance making a difference in the nature of a dislocation is, *the kind of complication which may be present along with it.* Thus, some dislocations are complicated with fracture, an occurrence that must evidently increase the seriousness of the injury. You will often meet with cases of this description in the elbow and ankle, and sometimes, though rarely, in the hip. When the ankle is dislocated, the fibula is commonly fractured, and occasionally portions of the lower end of the tibia also split off. With dislocation of the hip-joint, there is sometimes also a fracture of the brim of the acetabulum. A dislocation of the elbow may be complicated with a fracture of the coronoid process of the ulna. Then, besides the complication of dislocation with fracture, the former accident may be conjoined with paralysis, in consequence of the head of the bone pressing upon the nerves going to the limb. In the shoulder we occasionally notice paralysis of the deltoid muscle attending a dislocation of the humerus, and sometimes remaining a considerable time after the reduction of the bone, so as to require particular treatment for its removal. You may have, also, other cases, in which the dislocated bone presses upon important organs, as when the sternal end of the clavicle is dislocated backwards so as to press upon the œsophagus, and occasion a dangerous impediment to deglutition, as happened in an instance recorded by Sir Astley Cooper. You may have, likewise, a vast degree of œdema, produced by the pressure of the head of the bone upon the veins and absorbents of the limb.

The *causes* of dislocations demand a few observations, for they materially influence the prognosis. Amongst those which are to be considered as *natural predisposing causes*, I may specify the great latitude of motion which some joints admit of; the small extent of the articular surfaces; the looseness and fewness of the ligaments; the shallowness of the socket or articular cavity; and the action of the muscles, in particular positions of the limb or part; and, lastly, the great length of the lever represented by some of the cylindrical bones of the limbs.

But, gentlemen, besides these natural predisposing causes, there are other circumstances which facilitate the occurrence of dislocations, and consist of deviations from what is to be regarded as healthy and natural. Thus, paralysis of the muscles of a joint, and extraordinary looseness of the ligaments, may become predisposing causes. Now, to understand why this state of the muscles should have the effect here referred to, you should recollect that the strength of some orbicular joints depends less on the ligaments and the shape of the articular surfaces than on the support which they derive from the surrounding muscles or their tendons. This is undoubtedly the case with the shoulder; and it is well known that persons who have paralysis of the muscles of the shoulder and arm are exceedingly liable to have that joint dislocated, almost spontaneously. In fact, the capsular ligament of the shoulder-joint affords it little or no support; while the muscles and tendons, which pass over it, strengthen it in a much greater degree than either the ligaments or the conformation of the bones. Hence, when the deltoid is in a state of palsy, the weight of the arm alone will cause the head of the humerus to descend two or three inches below the glenoid cavity. Sir Astley Cooper, in his work on Dislocations, relates an instance, in which a young officer in the navy was obliged, by way of punishment, to stand for an hour with one foot placed on some projecting body on the deck, at the same time that his arm was drawn up to the rigging: the consequence was, that whenever he afterwards raised his arm above a certain level, the head of the humerus was immediately dislocated. In this patient the muscles of the shoulder and arm were so wasted and weakened, that they did not give a degree of support to the joint adequate to prevent displacement of the humerus from the glenoid cavity in the position of the limb which I have mentioned. But, on the other hand, gentlemen, you will commonly find, that in cases where the bone so readily quits its place from paralysis of muscles, or looseness of ligaments, there is as much facility in effecting a reduction, as there is in producing a return of the dislocation. In Sir Astley Cooper's very practical work, an instance is also mentioned of a young gentleman, who had paralysis of one side, in consequence of disorder of the system occasioned by dentition; and who had the power of throwing the head of the humerus over the posterior edge of the glenoid cavity whenever he pleased. He could do this, of course, only on the paralysed side of the body. When the ligaments are preternaturally loose, a joint is particularly liable to luxation. Hence, when a person has once had a dislocation he is very subject to the accident again, the weakened state of the

ligaments, produced by the original injury of them, affording an explanation of the fact. This is so true, that persons of convivial habits, who enjoy jokes and puns, and laugh much at table, after having once dislocated the lower jaw in a violent fit of laughter, may afterwards have their mirth frequently interrupted by the condyles of that bone slipping out of their places, whenever they indulge in their risible propensities. Sir Astley Cooper tells us of a young girl, brought up to tumbling, who had such a looseness of the ligaments of the knee, and especially of the ligamentum patellæ, that when the limb was extended, she could actually throw the patella flat upon the outside of the external condyle of the os femoris; in fact, she could dislocate the bone whenever she chose.

Diseases, which have destroyed the cartilages, ligaments, and more or less of the articular surfaces, may bring on dislocations, which, as I have already apprised you, are then called *spontaneous*, though they might as well be at once called *dislocations from disease*. Spontaneous dislocations are frequently met with in the hip; and there is, or at least used to be, a preparation in the museum at St. Thomas's Hospital, in which the ligaments of the knee were so loose, that the bones of the leg might be brought forward until they actually formed, in this direction, a right angle with the thigh. I have myself seen two or three instances, in which the ligaments of the knee were so loose, that the leg could be bent towards either side to a considerable extent. I remember to have seen such a case, many years ago, in St. Bartholomew's Hospital. I have also seen other instances, where, in consequence of disease of the knee-joint, the head of the tibia was drawn completely into the ham.

Sometimes a change in the shape of a bone, produced by rickets, will produce dislocation, as is illustrated in this preparation, where, in consequence of the altered shape of the humerus, the head of the radius is displaced. You see that the humerus is twisted, and that it has carried the head of the radius towards the inner condyle; and you will observe, that there is not only a dislocation of the head of the radius, but, in consequence of its having no bony surface to rest upon, it has undergone a kind of elongation—a greater development than natural.

CLINICAL LECTURES,

DELIVERED AT THE

HOTEL DIEU, IN PARIS,

During the Session of 1832–33.

BY BARON DUPUYTREN,

PRINCIPAL SURGEON OF THAT HOSPITAL.

Corrected by himself.

PATHOLOGY AND TREATMENT OF BURNS.

FIRST CASE.—*Burn on the knee in the fifth degree, lesion and abundant suppuration of the articulation.*—This patient was a shoemaker, of whom we have already spoken several times. On his arrival at the hospital, he exhibited, on the external surface of the left knee, a blackish, hard, crepitating, and insensible eschar, of about the size of the palm of the hand, and apparently very deep.

This man pretended that he had upset a kettle of boiling water on the part. It was easy to perceive at the first glance the falsehood of this assertion. If this was the real cause, the burn would not have been so circumscribed; the spilled liquid would have left traces of its action on a more or less considerable portion of the surface, it would have fallen on different parts of the leg, and perhaps also on the foot. We are ignorant of this man's motive for concealing the truth, and it was not until asked a multiplicity of questions, that we could learn that he had sat down with an earthen pot of boiling water between his legs, and had fallen asleep. It is probable that he was intoxicated, and in that state he might not be awakened by the pain, until the knee had been deeply burned. It is remarkable, that the clothes between the vessel and the knee were perfectly uninjured. This case may be classed among those not caused by the immediate contact of an ignited body, but by a body strongly saturated with caloric.

The eschar having fallen off, the burn was found to penetrate to the patella, and into the interior of the articulation. You also saw that abundant suppuration supervened, of a greyish grumous fetid matter, and a discharge of pus, mixed with a certain quantity of synovial fluid. Nevertheless, you must have been surprised at the amelioration that took place in his general health, and in the injured part. The suppuration was much diminished, and the patient was not so much exhausted; but this amelioration did not continue, as we have already mentioned. The patient was becoming progressively weaker; we had but faint hopes of obtaining a cure with an anchylosis of the articulation; it was more than probable he would perish, in consequence of the inflammation and suppuration of this cavity, and amputation appeared to us very nearly impracticable. This operation is the inevitable result of a burn of the sixth degree.

A burn of the first degree, which is of a large extent, often causes death at the moment of the accident, or in a very few hours afterwards: we shall give some such cases. But after the first twenty-four or forty-eight hours resolution commences, and the danger is over. When the combustible body has been very hot, and the application of it very short, it may cause a sort of tumefaction of the epidermis; if it engages an extensive surface it causes a very severe burn. This sometimes happens when a bath is made too hot; the mother of one of our poets perished about two years since, in consequence of an accident of this sort.

In a burn of the second degree the same

results are to be apprehended; and besides these, inflammation of the internal organs is most imminent, the danger of its supervening lasts much longer, and only ceases when desiccation has commenced. We shall here mention an important fact, of which you should never lose sight, when required to pronounce an opinion of the probable consequence of a burn; it is that, in all cases, women and children, irritable and nervous subjects, are less able to support the pain inseparable from these lesions, than persons of obtuse sensitiveness, and of a sanguineous temperament, adults, and old men.

In the third degree, the causes of pain and irritation succeed each other from the moment of the production of the disease until its termination, the patient is not only exposed to the dangers attendant on the two first degrees, but also to those that result from eliminatory inflammation; in the first instance, to a sudden death, caused by excessive general irritation, to primitive gastro-enteritis, to nervous diseases, such as tetanus, spasms, and convulsions; in the second, to the same phenomena, and to all the symptoms of violent secondary gastro-intestinal inflammation. As for the rest, the more extensive it is, the more serious; and when it affects a large cutaneous surface, two or three feet square, for example, it becomes most frequently mortal at the epoch of eliminatory inflammation of the eschars, or on the establishment of suppuration; but the formation of the cicatrix does not cause any of the inconveniences that mark the following degrees.

In burns of the fourth degree, the irritation and pain only last while the cause is present, but the patient may perish during that period. Should he survive, he will fall into a complete state of stupor; an icy coldness will seize him, and he will die in a few hours after the accident; sometimes the patient rallies, and he survives to the fifth or ninth day by the inflammatory reaction; sometimes also the excessive abundance of the suppuration, the protraction of the disease, the invasion of hospital gangrene, or a malignant fever, causes a profound debility and death.

A burn of the fifth degree, when it is very circumscribed, is always very dangerous, on account of the inevitable reaction that follows. What adds to the danger of the case is, that burns of every degree excite so much constitutional irritation that it is often difficult to remedy it; an ardent fever appears; diarrhœa, redness of the tongue, and vomiting, indicate gastro-intestinal inflammation.

A burn offers a different prognosis, according to the organ it affects. If it has attacked, for example, the organs of vision, and that the mischief has not past the conjunctiva, an acute ophthalmia follows, which generally leaves spots on this membrane. But when it is more deep-seated, the cornea loses all its transparency, the whole eye becomes disorganised, either primitively or consecutively. When the cornea preserves its transparency in some points, says M. Dupuytren, we may restore vision, by making an artificial pupil, as we have done in 1811, on a man who had both his eyes injured by gunpowder. We might cite many similar cases.

Second Case.—*Burns of the fifth and sixth degrees of the whole surface of the body caused by the ignition of the apparel. Death during the period of irritation.*—An infant, aged three years and a half, was brought in the evening to the Hôtel Dieu, after having been rescued from a chamber that was on fire. It was burned from head to foot, and a few shreds of its clothes only remained. With the exception of the toes, and a part of the feet covered by the shoes, there did not exist the smallest portion of the skin uninjured. On the back, neck, anterior and superior surface of the chest, there was a burn of the first and second degree; the hair and eyebrows were destroyed, the cheeks were covered with eschars, the arms were black, the skin was deprived of vitality, was black, crepitous, and split in several parts; the legs and thighs were covered with larger and thicker eschars than the cheeks; the fingers retracted, incapable of motion; and the genital organs were destroyed.

There was not the slightest hope entertained of this little sufferer, and it was certain he would speedily perish. Nevertheless, we removed the remains of his clothes from the neck and shoulders, and we put him into a warm bath. The respiration, which was very difficult, became more free. He remained in it for an hour, rallied considerably, complained of acute pain all over the body, and screamed for his mother. His whole body was covered with brown paper smeared with cerate, and he was wrapped in a fine sheet. About three hours after his admission, he was seized with profound stupor; and in six hours after the accident, death put a period to his dreadful sufferings.

Autopsy.—The body presented the same appearance as if it had been subjected to the highest temperature of an oven. The eschars were so numerous, that it was impossible to count them. As for the arms, one might say that they were one continued eschar, implicating the nerves, muscles, tendons, and aponeuroses. Some of the joints of the fingers were open; those of the wrists, elbows, and shoulders were red, and contained effused blood. The veins and arteries were exsanguineous. On the inferior extremities the burn extended to the bone, except on the thighs, where it did not penetrate beyond the muscles. The genital organs were so completely destroyed, that it was impossible to determine the sex of the infant.

There was a peculiar dryness in the mem-

branes of the brain, its tissue was injected, and the ventricle contained a sanguinolent serosity. The same degree of dryness was observable in the pleuræ and pericardium. The lungs were engorged with blood, the bronchiæ were vividly red. The appearance in the chest was the same as that of the pleuræ, pericardium, and meninges. The stomach and intestines were extremely red, all their vessels were minutely injected, the liver contained a great deal of black blood, and the bladder was distended by a considerable quantity of turbid urine.

THIRD CASE.—*Burns from the first to the fifth degree of almost all the surface of the body, by the ignition of the apparel.—Death by asphyxia during the period of irritation.*—On the 4th of February, about eleven o'clock at night, a woman, aged twenty-seven years, in the fourth month of utero-gestation, having used a foot-warmer, containing burning charcoal, fell asleep, during which the fire extended to her clothes, and she did not awake until she was enveloped in flames. Burns of all the degrees were produced. When she was brought to the Hôtel Dieu, her clothes were reduced to a cinder, and adhered to the surface of the body. The feet alone had escaped. The face was much less injured than the rest of the body; the eyebrows and lashes were destroyed.

The greater part of the surface of the body was covered by phlycteneæ, (the second degree,) or deprived of its epidermis, and the mucous tissue (third degree). Such was the state of the anterior surface of the legs, of almost the entire abdomen and chest, which presented a vivid redness. In every other part the burns had attained the fifth and sixth degrees; in the former the eschars were soft, and of a whitish colour; in the latter they were hard, crepitous, and brick-colour; the left arm and the posterior surface of the thighs presented over the totality of their surface, one or other of these alterations.

Her clothes were immediately removed, and she was placed in a bath at 24° Rem. At the moment of immersion she experienced a general burning sensation, but very soon found herself better; she nevertheless complained of intense cold, which she attributed to the effect of water thrown over her to extinguish the fire. This rigor continued about half an hour; when it had ceased she was overpowered with sleep. On being removed from the bath she was covered with fine linen smeared with cerate, and wrapped in a warm sheet. She was ordered a potion of whey and opium, and passed the remainder of the night rather tranquilly, and appeared to enjoy a little sleep. The next day, the immobility of physiognomy and the almost tetanic tension of the muscles of the face led M. Dupuytren to conclude, even before she was uncovered, that the burn was general. He ordered several baths; but having so great a dislike to this remedy, on account of her state of weakness and the pains which were unavoidable on her immersion, one only was administered. The draught was however continued.

The day passed without much suffering; she was in a state of continual sleep, and retained all her intellectual faculties. In the evening the dressings were renewed; and during the night she was very much agitated and very restless, but without delirium.

On the second day she was in a state of considerable debility; had had some violent fits of coughing, and could no longer swallow. The deglutition of a small quantity of liquid was accompanied by a gurgling that threatened asphyxia. Some moments after her speech returned, and her intellectual faculties remained unimpaired until the moment of her death, which took place on the same day, at eleven o'clock in the morning, between thirty-five and thirty-six hours after the accident, from asphyxia, that is to say, from a cessation of the functions of the respiratory muscle. The infant of which she was pregnant being only in the fourth month, and not viable, there could be nothing done to save it.

Autopsy twenty-four hours after death.—The skin almost everywhere was scarified, hard, and leathery. The eschars were whitish on the anterior part of the trunk, black on the loins, back, and the posterior part of the thighs; the skin, cellular tissue, and aponeuroses, were completely destroyed; the muscles of this region were red and stiff, but not changed; the hair which covered the pubis was burned; and the skin of the labia externa was carbonised. The pia mater was strongly injected; the arachnoid unhurt but arid; the cerebral substance firm and equally dry.

The lungs were free from adhesions, but engorged with blood; the bronchiæ full of mucosity, and their mucous membrane strongly injected. In the left ventricle of the heart there was a concentric hypertrophy very much developed. The stomach exhibited a number of small ulcerations near the pylorus, which were almost miliary; some of them were about the size of a lentil, and presented a greyish interior. The ileum was of a deep red colour in all parts. The liver and spleen were engorged; the peritoneum was very dry. The bladder contained some whitish urine, as also the pelves of the kidneys. The uterus contained a fœtus; the pubic and sacro-iliac articulations were mobile.

CLINICAL LECTURES

DELIVERED

BY DR. ROOTS,

At St. Thomas's Hospital, April, 15, 1833.

LECTURE XI.

Diagnosis and Pathology of Aortic Aneurisms —Immense Abscess of the Liver—Evacuation of the Pus by an external opening —Death—Remarks.

Gentlemen,—You may remember, that three or four weeks ago I directed your attention to a case of aneurism of the aorta, which I had a few days before admitted into Luke's Ward. The patient was John Dallon, a groom, thirty-three years of age. The sudden death of the man has enabled me to show that my diagnosis was perfectly accurate; and the parts which I shall shortly place before you furnish additional proof (if any was wanted) of the value of auscultation in detecting the nature of diseases in the heart and great vessels. You may remember, that in the taking-in room his principal, almost only, complaint was of sharp pain in the region of the right kidney, shooting into the groin, from which pain he had suffered for about five months, and which he considered to have been caused by an injury inflicted two months previously, since which he had never been well.

You will also recollect, at least many of you, that when he was sent to his ward I had his clothes taken off, and upon carefully examining the right lumbar region could discover nothing to indicate disease of the kidney; but on proceeding to examine the abdomen, I found a pulsating tumour, about the size of an orange, in the left hypochondrium, feeling circumscribed, and extending from the margin of the ribs midway to the umbilicus. Of this tumour he had said nothing, and on being questioned, stated that he had only discovered it a week before he came to the hospital. The impulse of the tumour was very strong, forcibly elevating the ear when applied to the stethoscope. At that time I could not discover any bellows sound when the stethoscope was placed over the centre of the tumour, but immediately below, the bellows sound was very loud throughout the whole course of the aorta to its bifurcation. On my next visit, and constantly afterwards, I detected the bellows sound in the tumour, and the tumour was slightly compressible.

Well, then, being satisfied that he had aneurism of the abdominal aorta, I proceeded next to examine his chest, though he stated he had nothing the matter there. He had not any cough or difficulty of breathing. Now, on placing my hand on the region of the heart, I found that organ beating over a larger space than natural; the impulse of the left ventricle very strong, heaving, if I may so term it, against the walls of the chest; the natural sound of the heart's action deadened; and a slight bellows sound occurring immediately after each systole of the ventricle. From this I inferred that there was hypertrophy of the left ventricle, with little, but very little dilatation, and that there was disease of the aortic valves, which, to a slight extent, rendered their action imperfect. Again; on placing the stethoscope higher up, about the centre of the sternum, I found a much louder bellows sound following directly after each contraction of the ventricle: and louder still, when I placed the instrument over the intercostal space between the second and third ribs of the right side. In addition to the bellows sound, I here heard a strong pulsation, and it was quite evident to the eye between these two ribs: but there was no tumour or projection; it was merely visible that an artery was vibrating there. The resonance on percussion over this space was duller than natural, more so than that on the opposite side, and the respiratory murmur was not so distinct there as on the other side. Although he had no cough, and complained of no difficulty of breathing, he admitted, on being closely questioned, that he had been subject to great palpitation of the heart occasionally for some four or five months.

Gentlemen, this case shows you how necessary it is to investigate closely the nature of every disease you may be called on to prescribe for. Had I contented myself with merely taking his account, and with only examining the region of the kidney, I should have incurred the disgrace of witnessing, in the dead house, a mass of disease, wholly unsuspected during life, and which only common care might have detected, and should have richly deserved your ridicule. As it was, I made up my mind that there was no disease of the kidney; but that the pain felt there and in different parts of the abdomen, particularly about the pubis, which he also complained of, was occasioned by the pressure or irritation caused by the aneurismal tumour in the nerves going to the different abdominal viscera, and therefore I wrote on his ticket "Aneurisma aortæ abdominalis atque thoracis, hypertrophia cordis sinistri, morbus ostii aortæ." His pulse, when admitted, was 92, strong, full, and jerking, or rather bounding, just such as you have when the left ventricle is much thickened, while the cavity is also increased. His easiest position when in bed was on his left side.

Now, gentlemen, as regards the treatment; had there been only the abdominal aneurism I should have felt it my duty to have requested my colleague, Mr. Tyrrell, to see him, in the hope that surgery might have suggested something which medicine was unable to effect: but with that state of heart and thoracic aorta it would have been highly absurd; the treatment, therefore, was merely palliative: occasional small bleedings to ℥viij., a restricted diet (milk), tinct. digitalis, ♏xv., acid. hydrocyanic. ♏ij., ter die; the latter was given in consequence of his suffering under dyspepsia, with occasional pyrosis. His bowels were

directed to be kept open by castor oil when confined. He came in on the 7th of March, and at the expiration of three weeks the abdominal tumour was evidently increased: it now extended quite to the umbilicus, and, indeed, could be felt a little below it; the medicine had been omitted a few days before; he was unwilling to take it, and I was anxious to humour him lest he should be disinclined to stay, and well knowing that I could do him no good. On the 30th of March, just after my visit, I find that he complained of a sensation as though the tumour had given way on the right side, but on the next day the report states that there was no particular change, and that he complained of scarcely any pain. On Tuesday, the 2nd of April, it appears that, after having passed a very restless night, he was seized in the morning with sharp pain shooting from the right nipple to the scapula, for which Mr. Whitfield applied a mustard poultice; and as he complained also of pain in the belly, ʒss. of tinct. opii was given in peppermint water; this appears to have afforded some relief, but he still complained of considerable pain in the right breast, loins, and groins. The pulse at this time is reported to be 96, soft but jerking; the tumour to have extended more across the epigastrium, the impulse in it much stronger; and at this time Dr. Barker was unable to detect any bellows sound there. The opiate was repeated at four o'clock in the afternoon, with the addition of a drachm of the spirit of nitric ether, but without any relief. In about half an hour after he fainted, and was dead in a few minutes.

Now, on the post mortem examination, first as regards the chest, the lungs were found to be perfectly healthy. With respect to the heart, there was great hypertrophy of the left ventricle, which even at the present time, though shrunk from its having been kept in spirits, you perceive is enormously thickened. I should say it is full three quarters of an inch in thickness. The cavity too, of the left ventricle you see (showing the parts), is dilated, and the carneæ columnæ are also much hypertrophied. The aortic valves are much thickened, more particularly at their base, so as to render the valve imperfect, which is quite sufficient to account for the bellows sound heard immediately after the systole of the left ventricle. If you feel this portion of the valve you will find that it is quite cartilaginous. Well, then, so far as regards the left ventricle and aortic valves, my diagnosis is correct, and if you look to the right side of the heart, you will find that free from disease; that it is perfectly natural. You will remember that I wrote upon his ticket that there was aneurism of the thoracic aorta, and here you observe is a small pouch, about the size of a small walnut, about an inch from the commencement of that vessel. The aorta itself, too, is somewhat dilated beyond the pouch, but not much; there is considerable disease throughout the whole of the inner coat of the vessel; you perceive considerable small depositions of yellowish white matter extending into the innominata, the carotid, and the subclavian, and I have no doubt that we should have found the same disease of the lining membrane throughout all the arteries of the body had they been examined. At this part (pointing to the inner coat of the aneurismal pouch), there appears to be slight ulceration, and you will afterwards observe the same in the abdominal aneurism. The thoracic pouch is small, but had the man lived much longer, it would probably have increased considerably in size, indeed the impulse was latterly much stronger there than when he first came into the hospital.

So far, then, gentlemen, my diagnosis was right as regards the lungs, the heart, and the thoracic aorta. Well, proceeding to the abdomen, a considerable quantity of blood was extravasated into the cavity, and a large aneurismal tumour, about the size of the head of a fully grown fœtus, arising from the anterior part of the aorta, in the part comprised a little above the inferior mesenteric artery, and half an inch higher than the cœliac axis. There are, in fact, two aneurisms of the abdominal aorta, and communicating with each other, the communication being by means of an oval aperture upwards of two inches in length, and transversely involving more than two-thirds of the calibre of the aorta,—the edges are well defined and somewhat thickened, which seems to depend on disease of the lining membrane. Immediately after the origin of the aneurism, the sac appears divided internally from left to right, and downwards, and thus separating the larger cavity from one of the size and dimensions of a small orange, situated on the left side, and behind the larger tumour; the principal sac has its largest diameter directly from behind, forwards; the cœliac artery is entirely lost in the dilatation, its three branches arising from the upper part of the sac, an inch and a half anterior to its connexion with the aorta. Here you see (*showing the parts*) is the hepatic, here the coronary, and here the splenic artery. The superior mesenteric artery arises in a similar manner from the anterior and inferior part of the tumour; the right renal comes off from the remaining sound part of the aorta, about the middle of the opening of communication between the artery and the aneurism. I cannot discover any vestige of the left renal; you will observe that a very extensive rent had occurred in the aneurism through its anterior parietes, but which in the recent state was covered by the adherent pancreas, excepting a portion capable of admitting the passage of a finger, situated at the left side, and through which the fatal hæmorrhage into the cavity took place. It is an example of what is termed true aneurism, namely, a dilatation of the three coats of the artery into a pouch. Aneurism frequently occurs from ulceration or rupture of the inner and middle coats, by which the

external coat is protruded, forming what is called false aneurism. It begins occasionally with merely dilatation of all three of the coats, and if the inner membrane is much diseased, it gives way, and perhaps the middle coat also, being true aneurism in the commencement, and false aneurism in the sequel. This writers have termed mixed aneurism. Where the aneurism is of the true kind, as in the present instance, the opening into the pouch is commonly very large, it is usually much smaller when it is caused by rupture of the inner and middle coats. Observe the mouth of these pouches (*showing them*), you see they are very large, so large as scarcely to admit of any neck to the pouch. It is possible, that had this man lived much longer it might have partaken of the mixed character, for in one spot you will see a minute ulceration of the inner coat. But had this happened, it is not in a situation to have diminished the original mouth of the sac. Well, now with regard to this species of aneurism we read of cases, in which benefit is supposed to have arisen from medical aid, but such an aneurism as this is not likely to be much relieved much less cured by any treatment. You see, in consequence of the immense opening into each sac, the blood passes through it with such velocity as to allow no time for nature to effect a cure. How does nature cure aneurisms spontaneously? When the neck of the pouch is small, and the blood finds its way into the pouch, through this small opening, it is for a time retarded in it; coagulation of the blood is the consequence; layers of fibrin are deposited against its walls, stratum upon stratum, till eventually the whole of the pouch is filled up with this coagulum, and there no longer remains any opening to the pouch, the current of blood passing onwards in its natural course; every thing is thus rendered favourable for the cure, absorption takes place by degrees, and perhaps nothing more is to be found than a dense flesh-like matter covering that portion of the artery which was originally the sac or pouch. But if you will observe in this case, in consequence of the great size of the mouth, the blood never scarcely being at rest, there is hardly any coagulum to be seen; here are a few, but very few, thin layers of fibrin, situated you will observe at the posterior portion of the pouch. I know of no means of distinguishing, during life, whether the aneurism be of the true or false kind. If we can trace its origin to any external violence, it is probably the latter, and that in consequence of violence, as a blow or fall, the inner coats may have given way. However the treatment must necessarily be the same in either. I have just shown you how nature does sometimes, though too rarely, effect a spontaneous cure, and our treatment must consist in aiding her efforts in the formation of a coagulum, to effect which our object is to render the circulation feeble, a condition most favourable to the production of coagulation, and the means by which we can attain this object may be comprised under low diet, occasional moderate blood-letting, perfect quietude, both bodily and mental.

With regard to the present case, the opening, as I have observed, is so large that I cannot conceive it possible that the most rigid plan of starvation and depletion could have ever produced a sufficient deposition of fibrin to close the mouth; neither, indeed, have I ever found any Englishman willing, for more than a day or two, to submit to such a plan of starvation as has been recommended by Valsalva. With regard to the treatment adopted in the present case, you will remember, that it consisted in the occasional abstraction of small quantities of blood, to the amount of rarely more than eight ounces, the object being to lessen the distension of the vessels, and to weaken the power of the circulation, by which the process of coagulation might more readily take place. You will perhaps say, why not abstract larger quantities of blood, more especially as the man's pulse was so full and strong, but you are to remember that this state of the pulse was not the result of mere fulness of the vessels, but was the pulse natural to an hypertrophied and dilated state of the left ventricle of the heart. I have read of cases of aneurism which have been said to be cured, or at all events materially relieved or retarded in their progress, by the frequently repeated abstraction of large quantities of blood. It has never occurred to me to witness such benefit in those few examples in which I have seen it employed, and I would take this opportunity of cautioning you against such frequent abstraction of blood to any large amount. I have already stated to you, that our object in bleeding is to retard as well as enfeeble the circulating power, but if you carry your abstraction of blood to such an extent, as to produce what is commonly termed hæmorrhagic re-action or excitement, so far from the circulating power being retarded, it will be tenfold increased. Again, by the frequent abstraction of large quantities of blood that fluid becomes much thinner and paler, contains a much less quantity of fibrin, and therefore much less capable of coagulation, and therefore in each way your object is defeated. I am satisfied that the best and safest practice is the abstraction of blood in moderate quantities. If the aneurism is of recent origin, and the patient of robust habit, then it may be right to make at first a decisive impression on the heart, by the abstraction of a large quantity of blood, and then to maintain that impression by the occasional abstraction of smaller quantities. At the same time, I cannot refrain from mentioning to you a doubt which arises in my own mind, as to the efficacy of blood-letting at all, in cases of aneurism, arising, as these manifestly do, from this peculiar diseased condition of the inner and middle membranes. You observe that there is scarcely any portion of the inner coats of the arteries, as far as we have examined, that is free from disease, that has not, more or less, of this deposition of yellowish white matter.

Now it is by no means certain that this deposition, by which the coats lose their elasticity, is the result of inflammation; we see changes of structure take place in other tissues of the body without any reason to consider inflammation as the cause, and why may not the same take place in the arteries. Some have been contented to believe it to be the result of a depraved action of the vessels, not identical with, or not amounting to inflammation, an explanation which leaves the question just as doubtful as before, inasmuch as it gives us no information as to what is the actual cause of this depraved action of the vessels. It becomes therefore a question whether bleeding, while it may perhaps diminish the aneurismal tumour, may not tend to increase the aneurismal disposition in other parts, by possibly aggravating this diseased condition of the lining membrane of the arteries. The digitalis was given with precisely the same view as in the abstraction of blood, namely, the retardation of the circulation. The application of cold, too, is another agent favourable to coagulation, and ice is said to have been employed with advantage. I have used it in some instances, in this hospital, in aneurism of the thoracic aorta, but without any positive benefit. Indeed the pain he experienced, from its continued application, was so intense, that I have rarely found the patient submit to its employment longer than a few days.

I am not aware myself of any other instance of double aneurism of the aorta, I certainly never saw an example of it before, neither do I remember to have read of one before. Here is a curious preparation (*showing it*) from our museum, which occurred, I am told, in a patient of Dr. Elliotson's. At first sight it does appear to be a double aneurism of the abdominal aorta; but if you examine it accurately, you will see that there is one aneurism of the abdominal aorta, and another of the superior mesenteric artery. You will observe, too, that in Dr. Elliotson's case, that the aneurism is of the false kind, the neck is more defined, the mouth of the sac much smaller. You will remember that, notwithstanding my patient referred all his disease to the right kidney, I was satisfied that organ was not affected; and accordingly we found the kidneys, and all the other abdominal viscera perfectly healthy, the pain which he felt there, and about the pubis, being caused by the pressure and tension of the tumour upon the nerves. You will recollect, too, (what is unusual in mere hypertrophy with dilatation of the heart) that he laid most easily on his left side. This is easily accounted for if you will take the trouble to examine the situation of the thoracic aorta: you will see that, when placed on his left side, the blood would be driven with less impetus into the sac.

I have also another interesting specimen of morbid anatomy to show you, gentlemen,—a case of enormous abscess of the liver,—the largest certainly that I ever saw, consisting of two large cysts, but communicating with each other, and capable of containing, I should think, a gallon of fluid.

It occurred in a man of the name of George Scully, ætat. 28, a carter, who was admitted into King's Ward on the 25th of January last. He stated that he had been ill one month with pain of an acute character in the right side of the abdomen, just in the situation of the cœcum; the pain was much increased on pressure, and extended slightly upwards for a short space in the course of the ascending portion of the colon; there was no hardness, no swelling dicovered by the touch, but acute pain produced by superficial pressure only; he was unable to lie on the right side, but could lie without difficulty on the left, had no pain in any other part of the abdomen; his bowels he stated were open once daily, the stools loose, and some griping before the bowels acted; had been getting thinner for some time previous to this attack; appetite tolerably good, no nausea or vomiting; tongue white in the centre and posteriorly, but red at the point and edges; pulse 100, small, but rather sharp; he complained of no pain in the region of the liver, could bear pressure under the ribs in the right hypochondrium without the slightest uneasiness. At that time he appeared to be labouring under inflammation of the serous and mucous tissues of the cœcum and caput cœli; twenty-four leeches were ordered to be applied over the painful part; half an ounce of castor oil was directed to be given directly, and five grains of the hydrargyri cum creta every six hours, his diet to be milk and arrow-root.

Now, this plan of treatment was continued for about a fortnight, the leeches being repeated nearly every day; the pain diminished, and on the 8th of February he was quite free from pain, with or without pressure; his mouth was slightly affected by the mercury, and as he complained of cough, and I feared a tendency to phthisis, I omitted the mercury, and discontinued the leeches, he having by this time had about one hundred and fifty on the side; he looked blanched, and complained of slight headach, with giddiness, which the loss of blood he had sustained would quite sufficiently account for; his bowels acted regularly, and he continued perfectly free from pain in the abdomen from the 8th to the 16th of February, taking no medicine, and was able to get up. On the 16th I found him in bed, and again complaining of pain, his skin, too, was hot, and his tongue more coated; it appeared that he been dissatisfied with his diet, and his friends had brought him some ham and other things, of which he had eaten freely, and no doubt had taken beer or spirits, or perhaps both.

He was again ordered the same quantity of leeches (twenty-four), which were directed to be repeated daily, and being unwilling to resume the mercury, I determined for a few

days to rely on them alone, he had then only the leeches daily, with occasional doses of castor oil, from the 16th till the 27th, when as there was still considerable pain, though somewhat lessened, I resumed the mercury, in conjunction with the leeches; after he had taken the mercury for a week, it was obliged to be abandoned for several days, in consequence of its having excited diarrhœa, with tormina and tenesmus, which, however, was relieved by the starch injections with opium into the rectum, and mustard poultices to the abdomen, which had now become tympanitic, and indeed continued so till his death.

The mercury was again resumed in conjunction with opium, and was then borne well by the bowels, the leeches being still continued, though in less quantity; in addition to the general tympany of the abdomen there was now distinct hardness felt extending from the situation of the caput coli to the whole of the right hypochondrium, and from thence across the epigastrium to the left hypochondrium, and over the whole of this hardened space the resonance on percussion was dull.

Bran poultices were applied, and the other part of the treatment continued; the cough now became more frequent, the respiration more hurried, the resonance on percussion very dull over the whole of the inferior portion of the right side of the chest, and no respiratory murmur could be detected below the fifth or sixth rib, and on the 23rd of March, circumscribed fluctuation was evident on percussion in the right hypochondrium; of course the mercury and leeches were omitted; the tumefaction increased, the intercostal spaces of the lower ribs of the right side were evidently bowed out, and the respiratory murmur could not be heard below the fourth rib; it was evident that suppuration to a great extent had taken place, and therefore I requested my colleague, Mr. Tyrrell, to see him, and if he concurred with me in the propriety of so doing, to make an opening and let the matter out. Mr. Tyrrell kindly saw him the same afternoon, but I understand that he was not satisfied that adhesion to the abdominal parietes had taken place, and thought it better to defer putting a trocar into it until it should have pointed. When the mercury and leeches were discontinued, on being satisfied that suppuration had taken place, I ordered him four ounces of wine daily, two grains of the sulphate of quina every six hours, with half a grain of opium, also to take two pints of strong beef tea daily. On the 26th, finding him suffering great irritation from this large collection of matter, I took the opinion of my two colleagues, Drs. Williams and Elliotson, as they both agreed with me in the propriety of letting the matter out directly, as the only possible chance of saving his life, I determined it should be done immediately, provided the patient would consent. It not being Mr. Tyrrell's day at the hospital, Mr. Green was good enough to perform the operation, though it was a long time before the man would consent, at length, however, he did, and four pints and a half of the most horribly offensive greenish coloured pus were evacuated, that I ever remember to have smelled; it was not what is called short pus, but had a sort of ropy character. Soon after the matter had been let out, he expressed himself as being much relieved, and glad that he had consented; the abscess from time to time continued to pour out large quantities of the same offensive fluid, on one occasion floating the space around his bed. His quantity of wine was increased, eggs were given in addition to his beef tea, and for a day or two after the operation he appeared as if nature would rally; he soon, however, began to sink, and died on the first of April, a week after the opening had been made.

Upon inspecting the body after death, the right lobe of the liver was found to be enormously enlarged, extending down midway to the right iliac region, and thence to the left hypochondrium. Adhesion of its surface had taken place to the abdominal parietes for some inches around the part where it had pointed most, and where Mr. Green had introduced the trocar. Adhesion had also taken place between a great portion of its convex surface and the diaphragm; inflammation had been set up in that muscle, extending to its pleural surface; and adhesion had taken place between it and the right lung; and as the abscess had increased in size, the diaphragm and lung had been pushed up just to the edge of the fourth rib, accounting for the absence of the respiratory murmur below that joint on the whole of the right side of the chest. The right lung itself was considerably condensed in consequence of the compression, and the walls of the abscess so thin just below the fourth rib, the diaphragm and substance of the liver so attenuated, that had the opening into the abdominal portion of the abscess been a short time longer delayed, it would have burst into the cavity of the pleura. The abscess, you will observe, occupies the whole of the right lobe of the liver, and consists of two large cavities (showing the organ) communicating with each other by a sort of valvular opening; the walls of the abscess varying in thickness in different parts, in some being of considerable thickness, in others not more than that of a shilling, lined by a ragged membranous-like substance, and evidently the result of inflammatory action, originating in the parenchymatous structure of the organ. The caput coli was much distended, its peritoneal coat considerably injected just at the part where he originally complained of pain, and adherent at that spot by a band of false membrane, both to the abdominal parietes, and the lower edge of the liver. The mucous membrane of the cœcum, as well as of the greater portion of the colon, exhibiting signs

of considerable congestion, with some degree of softening, and one small patch of ulceration in the cœcum.

The rest of the abdominal and thoracic viscera were healthy. Now, although I think that it is probable that this patient was suffering under some inflammation of the substance of the liver, even at the time of his admission into the hospital, yet he had no symptoms sufficiently strongly marked as to lead me to suspect it. The irritable state of the bowel, the superficial pain on the slightest pressure over the region of the cœcum, the pricking and smarting sensation there, together with the appearance of the tongue, and the absence of all swelling or hardness in the right hypochondrium, as well as the absence of pain on pressure there denoted nothing more than inflammation of the serous and mucous tissues of the cœcum and colon.

Indeed, at that time, there was nothing to lead me to imagine disease of any other organ; and I confess, that after he had as it were relapsed, and the hardness and tumefaction, together with the fluctuation, had satisfied me that suppuration had taken place, I then rather believed the suppuration had taken place from extension of the inflammation of the peritoneal surface of the bowel involving that of the liver, rather than that it was seated in the substance of the liver itself. I was right as regarded the condition of the cœcum and colon; but I admit that I was not prepared to find such extensive suppuration of the substance of the liver.

It is true the symptoms of inflammation of that organ are often exceedingly obscured; there is most commonly pain in the region of the organ, especially in the right hypochondrium; the pain is increased by pressure, and often too by inspiring deeply; the stomach is generally functionally deranged; there is often violent vomiting, with more or less pyrexia. In some cases, too, there is pain extending to the right shoulder; in some cases, though not often, jaundice occurs. If the inflammation is confined to the superior surface of the organ, from the peritoneal coat of the diaphragm, participating in it, there is generally of course more pain on inspiration, with cough, and symptoms resembling pneumonia. While, on the other hand, if the inflammation is principally seated in the concave portion, the stomach is commonly the organ most deranged in its functions; and where the inflammation is confined to the right lobe of the liver, the patient usually lies most easy on the right side. Let us see then how many of these symptoms were present in the case before us. He had very little pyrexia, no pain in the shoulder, no tension or pain on pressure in the right hypochondrium, no jaundice, no vomiting or nausea, nor any derangement of stomach, no cough until suppuration had commenced, and his easiest position from first to last was on his left side. I am anxious to impress these circumstances on your minds for the purpose of making you cautious in your diagnosis, as it shows you how exceedingly obscure the symptoms may be of suppuration in the substance of the liver; and that of the most extensive kind, when complicated, as in the present case, with inflammation of other tissues or organs closely adjacent. I believe that it may be taken as a general rule, that the symptoms of inflammation of the substance of the liver are invariably much more obscure, than when it commences in its peritoneal covering. With regard to the treatment, had I been satisfied from the first that inflammation of that organ had existed, my treatment would not have been different, nor more active. The state of his pulse, and indeed his general power never was such as to warrant the abstraction of blood from the arm; still, local depletion by means of leeches was vigorously employed, not by the application of small numbers, but by the daily repetition of twenty-four or twenty-five, until eventually somewhat more than a thousand had been applied. Mercury too, our next most efficient agent, was freely employed, and he was kept under its influence a considerable time, while the usual modes of counter-irritation were persevered in from time to time. At the same time, I would always advise you, in the early stage of inflammation of the liver, if you are really satisfied of its existence, not to rely on local depletion alone, but to abstract freely once, twice, or oftener, perhaps, blood from the arm, and then depend upon its local abstraction, in conjunction with mercury. The bowels ought always to be freely open, though I do not believe that very violent purging by the drastic cathartics will do good, and the diet ought to be of the lowest kind. I regret that in the present case the opening into the abscess had not been made earlier; I think it would have given the man a better chance of living, for I have no doubt that adhesion to the parietes of the abdomen had taken place for a considerable time, and therefore there could be no fear of extravasation into the cavity of the peritoneum. Even late as it was performed, it afforded him very considerable relief. In most cases of abscess of the liver which I have seen, nature has endeavoured to relieve herself by pointing externally. There are, however, instances where adhesion has taken place between a part of the abscess and the bowel, and bursting into the intestinal canal, has been carried off by stool, or it has burst into the stomach, and been brought up by vomiting. Sometimes it has burst into the gall bladder, and passed thence into the duodenum. Again, by the same process of inflammation and adhesion, ulceration has taken place in the substance of the lung, and the matter has been discharged through the bronchial tubes by the action of coughing. Sometimes, as was likely to have happened in the present case, pushing the diaphragm and lung before

it, it has burst into the cavity of the pleura, and discharged itself by a fistulous opening in the axilla.

It has not happened to me to see above six or seven cases of abscess of the liver; the first was an excellent one, treated by Dr Haviland at Adinbroke Hospital, Cambridge. In that case an opening was made by the introduction of a trocar, and a large quantity of pus and hydatids was evacuated. The case was treated most successfully; the patient, a female, recovered, and lived three or four years afterwards, dying eventually, I believe, of phthisis. However, in none of the cases in which I have seen the abscess opened, have the contents been so horribly offensive as in this man's, though I am told that Dr. Elliotson had a case in the hospital, some months ago, which was equally so.

MAGNETO-GALVANIC BRUSH.

BY DR. J. HANCOCK.

Addressed to the Editors of the London Medical and Surgical Journal.

I HAVE lately noticed in your valuable journal, No. 66, an interesting account of Dr. Hildenbrand's metallic brush, which is set forth in various periodicals as a new discovery. I can perceive nothing new in it, however, unless it be some peculiar hypothetical speculations of the author, which certainly appear very little to enhance its value; nor does anything appear especially edifying in the new phraseology introduced by the learned professor, such as the "*organic dynamic, the accumulation of the imponderable biotic principle,* and its *dissipation in autocratic explosions!*" Such verbal coinage can scarcely throw any light upon the subject, or be of value to science. For the rest, we find nothing but what has been long since fully promulgated on galvanism or Voltaic electricity, and its wonderful effects on the organs of sense, in painful spasmodic affections, as described some forty years ago, especially by Dr. Augustin, of Berlin. The reader may see a very comprehensive and satisfactory account of it, both in respect to theory and practice, in the *Edinburgh Practice of Physic and Surgery,* page 579; and in the same volume, p. 594, a description of the "metallic brush" of Mr. Molwitz, with a figure. It will here be seen, that there is not the smallest novelty in the present annunciation; and here, too, the same principle of action is supposed, that of drawing off the superabundant electricity, or electric plethora, as it is termed by Dr. Hildenbrand, who has given the same rules or pathological indications as those laid down by Augustin, Abernethy, and others.

The instrument or brush of Dr. Hildenbrand, consists of a bundle of metallic wires; that employed by Mr. Molwitz consisted of many such bundles, fixed in the periphery of a wheel, which was turned by a crank. It would appear, that the effect was thus greatly augmented; many cases of its efficacy are related. It was found to promote the peristaltic motions, digestion, and insensible transpiration; reproduced a retrograde erysipelas on the skin, augmented the animal heat, quickened the pulse, promoting absorption, and the circulation of the blood. The author mentions a painful spasmodic complaint of the stomach removed by its application, in which the patient could not bear internal medicine, and he concludes it might be useful in obstructions and spasms of the body.

Whatever odium has been cast on the metallic tractors of Mesmer and Perkins, the reality of their influence has been fully proved to depend on something more than imagination; but this power has been greatly augmented, rendered more appreciable, and reduced to scientific principles, by the discoveries of Galvani, of Volta, and the humble invention of Molwitz, for all these undoubtedly depend on the same general principle, although Molwitz considered the action of his metallic brush and Perkin's tractors to be merely mechanical, which was doubtless erroneous, but he paid very little regard to theory*.

* On Professor Hildenbrand's remedy, the editors of the Edinburgh Medical and Surgical Journal have made some very judicious ob-

We should not suffer ourselves to be misled by high sounding names, or new pathological phraseology; by the *dynamic factors of the sensitive life,* it is presumed that the professor means no more than what we express much more concisely, if not more intelligibly, by the term *vital powers.*

It may here be noticed, that some years since the present writer employed an instrument, the idea of which was suggested by those above mentioned, in the *Edinburgh Practice of Physic and Surgery* (of Volta and Molwitz). It consisted of two brushes, or bundles of metallic wires, one of magnetic iron, the other of brass, connected by a conducting rod, formed of brass and iron wires twisted together, thus forming a galvanic circuit. Its power was very manifest in many chronical disorders, and even in acute cases, along with due evacuants and refrigerant remedies; but in these cases it was usually applied contiguously, and not in immediate contact with the part inflamed. As stated, however by Professor Hildenbrand, and agreeably to all previous writers on medical electricity, the benefits of the metallic brush are mostly confined to *chronical* affections.

It is in the same conditions, too, (in the absence of heat and excitement) that *acupuncturation* is almost exclusively found useful; hence we may conclude, that the effect is here also chiefly referable to a galvanic influence of the needles employed; and especially as the benefit obtained is not found to be proportionate to the degree of irritation, or to the number of needles introduced, but rather to the time they are allowed to remain in the flesh.—*See Dr. Elliotson's interesting Lectures on Erythema, Lumbago, &c. in No.* 441 *of the Lancet.*

Might not the effect be increased by applying a conductor to a pair of needles? But I doubt whether the metallic brush may not effect all that can be done by acupuncture. Possibly, according to some ingenious views of Dr. W. Philip on the analogies of the nervous fluid and electricity, an evolution might thus be induced, tending to equalise the vascular and nervous excitement. More of interest and importance seems due to this inquiry since the experiments of Dr. Faraday, who has fully proved the identity of electricity and magnetism. Whatever its power or mode of action may be, the most beneficial results were obtained by this instrument, (the magnetic brush,) with proper adjuvants, and the use of aromatic, vapour, and carbonic acid baths, especially in gout and rheumatism, painful ulcers, and divers chronical and nervous affections. This method was never regarded by the writer as a matter of particular novelty, although it is not less so, he presumes, than Professor Hildenbrand's *scopula anodyna metallica.* It has been latterly found that the effect is greater by increasing the magnetic power of the iron brush, which is done by a very simple method.—*See remarks on this subject by the present writer in No.* 457 *of the Mechanics' Magazine.*

The metals are applied to use in medicine, chiefly in the form of oxides, or combined with various acids, but in many cases they act with more advantage in the metallic state; the

servations, which seem worthy of being repeated here. "Taken by themselves, the facts, if facts they are, are *extraordinary*, and would lead us to believe there was something more than fancy and mummery in the magnetic tractors of Mesmer. On a former occasion we adverted to the implicit confidence which Laennec reposed in the use of electric or electro magnetic plates on the breast and back in *angina pectoris*, and similar neuralgic affections of the chest, and were disposed, not only to doubt its alleged efficacy, but to regard it as a mere influence of imagination. Both methods of treatment appear to be referable to the same principle, whatever that may be; and as both appear to be regarded as really efficacious by physicians, certainly not of second rate importance, we think, that instead of being made the subject of ridicule, which is too often the case, and which can neither decide the matter of fact, nor investigate the principle, they should be subjected to fair trial, and their actual merits truly determined."

filings of zinc and copper, taken internally, are powerful tonics, assist digestion, and expel worms; even the tape-worm will seldom resist this remedy, taken in doses of one or two drachms of each metal. The same, applied externally, induce the most inveterate ulcers to heal. On the coast of Guiana, where *nail sores* (those about the toe-nails), are most troublesome and difficult to heal, a single application of copper filings will often effect a cure, after all the usual means had failed, the sore being first cleansed, sprinkled with the filings, and the toe gently compressed with lint and a small elastic band. Iron filings have been recommended in rickets, and as a vermifuge, but are rendered far more powerful by mixture with zinc or copper. The latter has been considered as poisonous; this is a mistake, but it is proper to avoid the use of acids when these metals are taken. It must be confessed, however, that the uses of the *limaturæ metallicæ* have never been duly investigated, and these, as well as the native vegetable remedies of the country, present, to the man of science and medical philosopher, most important objects of research.

SCROFULOUS DISEASE OF LOWER JAW.

Joseph Spilman, ætat. 11, admitted May 5th, 1830, under the care of Mr. Brodie.

Lower jaw on right side presenting an equable enlargement, extending from near the angle to near the symphysis—generally hard, smooth, not tender to the touch; in diameter from above downwards about an inch and a half, from before backwards two inches and a half. Within the mouth at the root of the first molar tooth, and at the point of junction between the cheek and gum, an ulcerated opening, with rather raised borders, from which pus wells upon pressing the external tumour, and through which a probe passes down to the exposed bone. Skin covering the tumour quite healthy. On left forearm, over about the middle third of the ulna, hardness and tumefaction, with several ulcerated openings; no exposed bone felt here. A great number of warts upon the hands. Appearance delicate and scrofulous, with a languid circulation.

The tumour on the jaw was of two years' duration. He had observed that pus appeared in his mouth since the last summer. The affection of the arm commenced nearly at the same time as that of the jaw.

Tinct. ferri muriatis, ℳxv. *t. d. Cat. lini. cubito.*

July 3rd. To-day Mr. Brodie enlarged the opening in the mucous membrane, and extracted three pieces of dead bone. On the 23rd several other pieces of bone were extracted. The ulcerated opening diminished in size, no more carious bone could be felt, and in September the boy was dismissed the hospital, very much improved both locally and generally, but not cured. There was still a considerable degree of thickening about the angle of the jaw, and probably some bone yet to be separated.

We have since heard, but we cannot vouch for the truth of the report, that the boy is dead. We have not been able to learn any particulars.—*Medico-Chirur. Review.*

A CASE OF HYDRORACHIS UNSUCCESSFULLY TREATED BY PUNCTURE,

BY SAMUEL MALINS, M.D.,
Lecturer on Midwifery in the School of Medicine, Bachelor of Letters of the University of Paris, &c.

A female child was born on the 23rd of March, 1832, having a semi-transparent tumour, the size of a large walnut, over the eleventh dorsal vertebra, of which the spinous process and a portion of the ring were wanting. When the fluid of the tumour was returned, by pressure, into the channel of the spine, no inconvenience resulted; the lower limbs were under the usual control; the powers of the

rectum and bladder not impaired; and the child's head and countenance presented a natural appearance.

On the 5th of April, about six drachms of a serous fluid were let out by puncture with a needle, as recommended by Sir Astley Cooper, and a bandage with a slight compress was applied. The child was afterwards restless, and started much during sleep. On the 8th, not more than four drachms of fluid, tinged with blood, were discharged by similar means; on the 16th, about five drachms, and an equal quantity on the 23rd. Adhesive plaster and card, or thin sheet lead, were substituted for the linen compress. As much constitutional irritation followed each operation, and the child's flesh had wasted and become flabby, while the size of the tumour was not diminished in the least degree, it was thought advisable not at present to persevere. The health began immediately to improve, and in a few weeks the child was, in every respect except the tumour, well.

This, on the 13th of June, had become, by gradual increase, twice as large as originally, and offered a surface beautifully diversified by numerous capillary branches of arteries and veins. Still desirous of attempting the cure of an affection which, if left to nature, would certainly prove mortal, I again punctured the tumour, and obtained from it nearly an ounce and a half of limpid serum. A truss, previously adapted for the purpose, was then applied so as to close the vacant interosseous space, but owing to the alarming condition of the child it was removed, after remaining only two or three hours. The evacuation of the tumour was followed this time by frequent sickness, incessant restlessness and crying, distressed and sunk expression of the countenance, convulsive twitchings of the limbs; symptoms which, together with considerable oozing from the tumour, lasted several days. I was not anxious to repeat the puncture after this, nor indeed would the friends have consented to it; they objected even to the use of the truss as a palliative.

The child now thrived and continued healthy; the tumour, however, grew insensibly larger until, on the 1st of November, it had attained the size of a large orange, having a peduncular base. On the 3rd it burst, and discharged suddenly about five ounces of fluid. Death occurred, after general convulsions, on the 6th. As no inspection of the parts, after death, took place, it was not possible to ascertain the precise seat of the fluid, —whether it was contained in the cavity of the arachnoid, or between that membrane and the pia mater, constituting merely an excess of the cerebro-spinal fluid of Magendie. But as there was nothing to indicate that the effused fluid communicated with the ventricles of the brain, it probably existed in the former situation, where, in fact, Billard (Traité des Maladies des Enfans, p. 585), who has examined many cases of the kind, considers that it always exists.

The term *spina bifida*, commonly applied to this complaint, is evidently incorrect, as designating only an effect of the preternatural secretion of fluid, which is the essence of the disease: thus the sac containing it has sometimes protruded internally, preventing the formation of the *body* of a vertebra, and then no bifurcation of the spine or other external mark has existed.

The inference to be drawn from the foregoing case is, as far as it extends, unfavourable to the efficacy of the treatment by puncture, and confirmatory of the older view,—that it is desirable, whatever else is done, to preserve the integument entire as long as possible.—*Liverpool Med. Gazette.*

OBSERVATIONS ON THE TREATMENT OF VARIOUS DISEASES.

BY ROBERT J. GRAVES, M.D., M.R.I.A.
King's Professor of the Institutes of Medicine.

FRACTURE OF A RIB PRODUCED BY A VIOLENT FIT OF COUGHING.

On the 24th of last March, a lady residing in the country came to Dub-

lin, for the purpose of consulting me concerning a pain in her left side. She was about forty-seven years of age, tall, and unusually strong and muscular for a female. She had a violent fit of coughing five days before, during which she was suddenly seized with a stitch in her left side, accompanied by the sensation of something having snapped or given way. The pain was so severe, and so much affected her breath, that she obtained professional advice next day, when some leeches, and afterwards a blister, were applied, but without relief. On examining her, I found that her constitution was unaffected, her appetite being good, and her pulse natural. Yet she could not make a deep inspiration without extreme pain, and she complained of great soreness and tenderness extending in every direction from central portions of the ninth and tenth ribs. When she made a very deep inspiration, the pain was felt in the situation of the left kidney, and also shot upwards to the left shoulder. These symptoms, evidently differing from those produced by either common pleurisy or pleurodyne, puzzled me not a little, and I desired the lady to remain in town, in order that I might make an examination of the affected parts when she was in bed. When this was done, I found that the central point of tenderness, and that from which the pain as it were radiated, was situated not between the ribs, but on one of them, either the ninth or tenth, I think the former. It was evidently either at or very near the junction of the cartilaginous with the osseous portion of the rib.

Pressure made exactly over this spot could scarcely be tolerated, and immediately gave me the idea that the bone yielded here, in fact, that it was broken. I mentioned my suspicion, when she told me she had mentioned to her family immediately after the accident occurred that she was sure she had broken a rib, as the feeling was similar to what she had two years before experienced on breaking one of the bones of the fore-arm. She also observed that she was much easier during the day when her stays were on, than at night when she had unlaced and taken them off. On applying a compress and roller over the part she experienced immediate relief, and gradually recovered without any other remedy being used.

There was no evidence of unusual fragility of the bones observable in this lady. The fracture of the fore-arm had been occasioned by an accident attended by the application of a sudden and violent force to the bone, and she had recovered speedily with a well ossified callus. With respect to the explanation of the fracture of a rib as an effect of coughing, it is to be recollected, that several of the abdominal muscles, which are called into action in forcible expirations and violent fits of coughing, arise from the margins of the inferior ribs; and to the agency of the unusually sudden and energetic action of some of them, we may, therefore, attribute the fracture of the rib. Altogether the case is instructive, not merely for its singularity, but because it affords a useful lesson with regard to the extreme importance of making an accurate examination of every disease before we hazard an opinion concerning its nature.

I have not read of any case similar to that just described; nor does Dupuytren, in his remarks upon the fracture of bones by the action of muscles, even allude to such an accident. He quotes the following from the Révue Médicale:—a woman, aged thirty-seven, of a healthy constitution, was in the act of lifting a heavy weight of olives into a cart; the head and body were forcibly thrown back, to enable her to rest the weight partly on her stomach, and while making the effort to raise it higher, she felt, as it were, a crack at the middle of the sternum. This was followed by an acute pain, which forced her to press upon the part with her hands; a fracture was at once detected by the surgeon, and the lower portion of the bone was found

to be projecting, and the upper one to be depressed. Compression and a bandage were applied, and in the course of a month the union was complete.—*Dublin Journal of Medical and Chemical Science.*

THE

London Medical & Surgical Journal

Saturday, July 27, 1833.

THE LONDON COLLEGE OF PHYSICIANS.

It is now admitted on all sides that there must be a reform in the London College of Physicians; even the Fellows and their advocates are of this opinion. We are gratified to observe one of our contemporaries re-proposing the plan of improvement long since suggested by us, of throwing open the fellowship to physicians, of whatever university, who have, by their writings or practice, acquired a certain degree of eminence. If the rulers of the College had a grain of common sense in their heads, they would seize the opportunity now afforded them, by the postponement of the Apothecaries' Act, and annul their illegal and absurd by-laws. But we feel convinced they are too blind to follow our advice; and that they will wait, like the apothecaries, until parliament will pluck them of their borrowed plumes. If they acted liberally, and were joined by the excluded and insulted members at large, they would have no difficulty in obtaining the power to grant medical degrees; but we feel thoroughly convinced, that were parliament to propose such a measure at present, it would be opposed by a preponderating majority of the members themselves, and by all classes of the profession. No man with a spark of liberality or a love of science would consent to have the censors as they are now elected as an examining body; because many of them are unknown and incompetent for such an office. We mean no disrespect to the present censors, for we acknowledge, that so little interest do we take in the College affairs, that we really do not know who these examiners are at this moment. We allude to the Fellows in general, those who usually constitute the Board of Censors, some of whom are too much advanced in life, others too young, and neither acquainted with the present state of science. We denounce the mode of election, but not the individuals chosen. Unless the College change their absurd and unjust by-laws, they never can obtain the support of the profession, or of the legislature. We consider reform in this body of vital importance, because the abuses and corruption that have crept into it have been the bane of the whole profession in this kingdom. This body has allowed the surgeons and apothecaries to infringe upon physicians to such an extent, that they possess the whole practice of medicine; and to render better educated physicians useless members of society. Every abuse and defect in the practice of the healing art can be traced to the narrow, selfish conduct of this Col-

lege; and we most sincerely trust that parliament will abolish it altogether, or effect such changes in it, as will raise the profession to that importance which at present it does not possess. But the College are insensible to every call of justice and humanity; are deaf to every remonstrance, and strongly remind one of the adage—"*Quem Deus vult perdere prius dementat.*" Demented indeed must they be, if they suppose that the parliamentary inquiry about to be established will not probe them to the quick, and cauterise their fungosities. Were they prudent or liberal, they would immediately admit their brother members to the privileges which are so unjustly withheld from them, and then appeal to the legislature for the power to grant medical degrees. At present they have not the slightest chance of obtaining such power, which will, most probably, be conferred on others. If any other public institution obtain it, the abolition of the London schools now recognised will be the consequence, the rights of lecturers destroyed, and we have reason to know, that petitions to both houses of parliament are now being prepared against this measure. On the other hand, no school could object to the College of Physicians, if the reforms we have argued for were made in that body; because the examiners in such event would not be attached to any school, and could have their minds unprejudiced towards students. But it is preposterous to think that London, the greatest city in the world, should not possess an institution for conferring medical degrees. Such a want we know will be speedily supplied.

LONDON MEDICAL ASSOCIATION.

At a meeting of medical practitioners and pupils, held at the Gerrard-Street School on Thursday evening the 18th of July, Dr. Epps in the Chair, the following resolutions were proposed and carried unanimously:—

1. That the meeting shall be called the *London Medical Association.*
2. That members on enrolling their names do pay a fine of 2*s.* 6*d.*
3. That members be allowed to introduce an unlimited number of medical and non-medical visiters to the association, to be named to the president at a proper time.
4. That there be no fines connected with the association.
5. That the object of the association shall be two-fold; *first,* to protect the *rights and privileges* of medical practitioners and pupils; *secondly,* for the furthering of science by discussing the articles which appear in the various medical journals.
6. That the first meeting of the association shall be held on Friday the 26th of July instant, at 8 o'clock in the evening.
7. That Mr. William Meade be appointed honorary secretary to the association.
8. That the thanks of the meeting are due and hereby given to Dr. Epps for his dignified conduct in the chair.

Wm. Meade,
Honorary Secretary.

ROYAL PENSION TO DR. DALTON, OF MANCHESTER.

His Majesty has granted a pension of 150*l.* a-year to Dr. Dalton, of Manchester.

MR. PLUMBE ON THE FRENCH AUTHORS ON DISEASES OF THE SKIN.

SINCE the publication of my last observations, which placed my intentions, as to the writings of French dermological authors, before the readers of the *Medical and Surgical Journal*, a translation of M. Rayer has appeared, proving that there are others as well as the editors who think a communication of the knowledge of our French brethren very desirable. M. Rayer has had the good fortune, for which he may thank his better stars, of having been pronounced, by a few individuals in England, the best of French authors, and has thereby been enabled to appear in English.

Whether he will think it to his advantage or not remains to be seen; but if *he* should be pleased by it, the medical profession will not, at the present moment, be much gratified, by finding that one of their own body considers it necessary to put French into English for their comprehension. The translation, however, exhibits a good deal of industry; and although divested of the engravings and vocabulary of the original (by far its most valuable parts), may be read with advantage, as an elementary work, by those who are embarking in the study of *cutaneous diseases*. It has, however, many demerits; and those parts where the original author has introduced English into his best French, and the translator rendered it again into his best English, there are several curious and important anomalies. Thus, for instance:—M. Rayer says, "M. Plumbe *prétend* que les papules sont produites par un très legère épanchement de lymphe dans le tissu de la peau, avec lequel cette humeur se combine lorsqu' elle n'est pas résorbée;" which the translator writes, "Mr. Plumbe *pretends* that papules (Anglicè, pimples) are produced by a very slight effusion of lymph into the tissue of the skin, with which this humour combines, when not re-absorbed." M. Rayer continues:—"J 'ajouterai à l'appui de cette opinion qu'en piquant profondement avec un aiguille les grosses papules du Strophulus périodique, et en les comprimant fortement entre les doigts, on en exprime quelquefois une très petite gouttelette d'une humeur transparente." Our translator has evidently here mistaken the meaning of the author, for he should have written instead of "Mr. Plumbe pretends," "Mr. P. maintains." My own words and meaning, which have been thus twice translated and distorted, were these: "That the cutaneous affections of infants assuming the form of pimples should be so common, is explained by the greater degree of vascularity of cutis and delicacy of the cuticle. In the formation of a pimple, an unusual degree of activity in the vessels of the spot is necessary, and this condition is one which the vascularity in question is peculiarly calculated to support. Turgescence, to a certain extent, seems also an absolute requisite. The cuticle covering the spot readily yields to the impulse of the circulation, and a minute effusion of lymph takes place under it. This I consider to be a correct account of the formation of a papula, or pimple. It is produced by a minute escape of lymph from a distended vessel, and not by an enlargement of an original part of the cutis, or, in other words, of a papilla, as hitherto supposed."

Again: the translator, on the subject of Lepra, thus expounds his author's meaning. "When the patches are few in number, and not much inflamed, lepra is not accompanied by any morbid sensation except slight itching when the temperature of the body is raised by exercise, or the heat of the bed. *This sensation is occasioned, Mr. Plumbe says, by the rising of the edges of the scales, which causes tumefaction of the surrounding areolæ.* Whether this explanation be true or not, it is certain that when lepra is cured, and new scales are no longer formed to raise up or replace those already developed, this feeling of

pricking and itching is not experienced by the patient." Rayer thus expresses himself:—"Cette sensation est occasionée, suivant M. S. Plumbe, par le soulevement de la circonférence des écailles, que détermine la tuméfaction de l'aureole qui cerne ces plaques." My own language is as follows:—

"There is one circumstance peculiar to this disease, which has been particularly mentioned by the patient, namely, a sensation of *pricking*, most frequently noticed a little before the separation of the first scale, when perhaps it has scarcely attained the size of a spangle. I am inclined to think this sensation the consequence of the rising up of the edges of the scale, produced by the tumefaction and elevation of the inflamed margin and fresh growth of scale, the centre, which was attached to the cutis, being thus forcibly torn from such attachment. This conjecture is rendered more probable by the fact, that when the disease is obviously subsiding, when no new scales rise up and thrust those which were before formed from their attachments, the *pricking* in question is no longer felt. The examination of the inner surface of the first separated scale, enables us to discover in or about its centre, a minute protuberance, considerably softer than its bulk, which has evidently occupied a corresponding hollow or excavation in the denuded surface. If force has been used to separate the scale, a speck of blood occupies this excavation, and the point described as the centre of the inner surface of the scale is similarly discoloured."

So much for the said translation at present. It is not much that I have said against it, and I hope and trust I shall have more to say for it before I have concluded my task. M. Rayer does not appear to have had opportunities of acquiring practical knowledge of these diseases, by many degrees equal to those of Alibert and Biett, unless he had gone as an amateur through the establishments they were officially connected with, by their permission, and with the advantages of their direction; and notwithstanding the honour done him by translators and printers and publishers here, it is not only quite absurd, but monstrously unjust to Alibert and Biett, to place his name in any way or degree before them. There is nothing better worth translating in Rayer's works than in the others before mentioned. There is evidently no comparing of notes between them, nor anything like unanimity, except where the latest author has been led to a corresponding opinion with the earliest. In France for many years, it is fair to suppose for the advancement of science, the greatest facilities have been afforded to men of science for the prosecution of their different pursuits, facilities quite unknown in this country; and the establishment of the Bureau Central des Hospitaux was of all others most likely to be conducive to the advancement of medical and surgical knowledge, by its power of sending patients to institutions, where the medical officers had the best practical knowledge of the particular disease to which the unfortunates happened to be subject. It was a fashion of late years among our older surgeons, to maintain that institutions for the treatment of particular classes of diseases, or those of different organs, were libels against the mass of educated surgeons. It was contended, that a surgeon if properly and thoroughly educated, would be a very good physician, a better surgeon, a still better oculist, than any man with the same advantages who directed his sole attention to any particular class of diseases, or the diseases of any particular organ, and yet how little could these men teach in their class-rooms of what is now known in consequence of the division of industry into many different parts? The vast science of medicine has yet room for other divisions and sub-divisions, in which individuals may labour with the greatest advantage to their fellow creatures; and the time is not far

distant, when each member of the medical profession, numerous as they are, may select some subject which by diligence and attention he may advance the knowledge of, and obtain for himself ample credit and reputation. It is admitted on all hands that diseases of the skin have been till of late years very much neglected, at least so say Alibert and Rayer, Willan and Bateman, and Biett. A quarter of a century has elapsed, and the same changes continue ringing, and it is difficult to find a single line in any author speaking with honest confidence of a remedy for any individual disease. The French dermologists are strangely inconsistent; we found them at first lauding the arrangement of Willan and Bateman, for their ingenious though *artificial* classification, and now we find M. Alibert giving a prize for a *natural* arrangement. There is a great deal of profound nonsense in an article written by Dr. Paget, in the Edinburgh Medical and Surgical Journal, who is evidently capable of writing better things. This is M. Alibert's *prize* essay, dated APRIL 1.

As regards cutaneous diseases, those who have written on them and pretended to understand them, never took the trouble to examine them minutely. Their patients appeared before them with their skins covered by the filthy accumulating secretions of the diseased parts. They prescribed, and took no notice of the result beyond the effect of the application on the diseased secretions, which often amounted to nothing; hence, and hence only, have such diseases been considered obstinate.

I mentioned, in a former paper, my intention to reserve the translation of Rayer till Alibert's work (2nd edit.) had been a little farther advanced, and I now find that I am to procure a second edition in French of Rayer also! despite the translation in question just come forth. Eh bien! the readers of the Medical and Surgical Journal shall have the translation of the NEW edition!

14, *Southampton-street,*
25th July, 1833.

BRISTOL INFIRMARY.—PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

YESTERDAY, July 20th, our infirmary was complimented with the distinguished honour of being the place selected for holding the *first anniversary* meeting of the above society, in consequence of the very numerous list of members, and the respectable support given to the association by the most eminent professional gentlemen of this city.

It may be recollected that this society was formed last year at Worcester, an account of which was inserted at the time in our paper; since that period about 200 gentlemen have enrolled their names in the books of the society, which now consists of nearly 400 members, of whom about 50 are residents in Bristol.

The principal objects of this association are:—

1. The collection and publication of useful medical and surgical information, whether speculative or practical, through original essays, or reports of cases occurring in provincial hospitals, infirmaries, dispensaries, or in private practice.

2. The improvement of medical topography.

3. The investigation of endemic and epidemic diseases.

4. The advancement of medico-legal science.

5. Biography of distinguished medical characters.

6. A retrospective annual view of medical and surgical science.

7. The maintenance of the honour and respectability of the profession generally in the provinces, by promoting friendly intercourse and free communication between its members, and by establishing among them that harmony and good feeling which ought

ever to characterise a liberal profession.

Previously to the commencement of the business of the day, the exterior of the infirmary, the internal arrangement of the wards, the new buildings appropriated solely for the out-patients, the museum, the library, the lecture room, and the whole economy of the institution became an object of general attraction and approbation.

At eleven o'clock the Members of the Council met in the infirmary committee room, preliminary to the general meeting at one o'clock, about which hour this institution presented a scene of unusual professional ardour and interest, by the arrival of nearly 200 members from different parts of the kingdom. Dr. Carrick was unanimously called to the chair.

Amongst the company were—

Dr. Hastings	Worcester
— Malden	Ditto
— Streeton	Ditto
— Field	Ditto
— Bompass	Fishponds
— Forbes	Chichester
— Conolly	Warwick
— Conolly	Cheltenham
— Sainsbury	Corsham
— Lloyd	Ludlow
— Bevan	Monmouth
— Holbrook	Ditto
— Woodforde	Wells
— Paris Dick	Castle Cary
— Gingell	Thornbury
— Sully	Taunton
— Sully	Cheltenham
— Burridge	Barnstaple
— Baron	Cheltenham
— Barlow	Bath
— Toderick	Ditto
— Blackmore	Ditto
— Sealey	Ditto
Mr. Norman	Ditto
— Soden	Ditto
— Tudor	Ditto
— Browne	Ditto
— George	Ditto
— Gore	Ditto
— Spender	Ditto
— Kilvert	Ditto
— Moger	Ditto
— Waldron	Ditto
— Ormond	Ditto
— Prince	Ditto
— Hay	Ditto
— Church	Ditto
— Hovendon	Ditto
Mr. Hebb	Worcester
— Morris	Ditto
— Carden	Ditto
— Carden	Gloucester
— Fox	Cerne, Dorset
— Rumsey	Beaconsfield
— Selwyn	Ledbury
— Crawford	Shrewsbury
— Jennings	Leamington
— Martin	Reigate, Surry
— Alexander	Corsham
— G. Bird	Swansea
— Brewer	Newport, Wales
— Flower	Chilcompton
— Marshall	Shepton Mallet
— Edwards	Wiveliscombe
— Gill	Wolverhampton
— Proud	Ditto
— Fewster	Thornbury
— Kenrick	Melksham
— Griffiths	Wrexham
— J. Griffiths	Hereford
— Greville	Yatton
— Williams	South Brent
— Lovel	St. George's
— Bisdee	West Town
— Collins	Chew Magnay
— Edwards	Keynsham
— Beddome	Romsey
— Wickham	Didmarton
— James	Wrington
— Batt	Abergavenny
— Seagram	Warminster
— Selwin	Ledbury
— Toogood	Bridgewater
— Alford	Taunton
— Smith	Great Somerford
— Evans	Chepstow
— Golborne	Chippenham
— Eastment	Wincanton
— M'Donald	Yatton
— Pope	Temple Cloud
— Craig	Hallatrow.

And many other gentlemen, including most of the resident faculty of this city and neighbourhood. Letters were also received from the following distinguished individuals, expressing regret at their inability to attend the meeting.

Dr. Kidd	Oxford
— Thackeray	Cambridge
— E. Johnson	Birmingham
— J. Johnson	Ditto
— Darwall	Ditto
— Jeffreys	Liverpool
— Squires	Ditto
— Boraisgan	Cheltenham
— Rumsey	Amersham
— Goldie	Shrewsbury
— Phillips Jones	Denbigh
— Thomson	Stratford
— Davies	Presteign, Radnorshire

Dr. Kerr	.	.	Northampton
— Robinson	.	.	Ditto
— Lloyd	.	.	Ludlow, Salop
Mr. James	.	.	Exeter
— Terry	.	.	Northampton
— Mash	.	.	Ditto
&c.	&c.	&c.	&c.

The meeting was opened by Dr. Carrick, with an introductory and luminous speech; Dr. Hastings, Hon. Sec. to the society, then read a report from the council, after which several resolutions were carried, and a council was formed to conduct and manage the affairs of the association.

The business of the society being so far completed, Dr. Barlow, of Bath, delivered an eloquent and learned address, containing a retrospective view of the state of medical and surgical science, which occupied nearly an hour. This oration was received with universal satisfaction and delight, and unanimously ordered to be inserted in the next volume of the transactions of the society.

The morning business being concluded, the company separated, and met again at six o'clock, with several additional members, and sat down to dinner in the spacious banquetting room at Ivatt's hotel, when Dr. Carrick again took the chair, and Mr. R. Smith and Mr. Hetling acted as vice-presidents.

Nothing could exceed the harmony and conviviality of the party; several toasts and speeches were given during the course of the evening, applicable to the occasion, and the company did not rise from this social and intellectual entertainment until a late hour, and separated under the most gratifying prospects of meeting again next year at Birmingham with increasing success and prosperity. There never has been, on any occasion, such an assemblage of provincial talent and character convened together, either in this or any other country, and altogether forming a new æra in the history of the profession.

It is but justice to Mr. Ivatts to state, that the turtle, dessert, wines, and every arrangement respecting the dinner were such as to do him the highest credit, and consequently gained universal satisfaction.

In conclusion, as citizens of Bristol, we feel an honest pride in our ancient city having been selected for the first anniversary meeting of this valuable and scientific association, and we most sincerely wish it permanence, success, and prosperity.

EXTRAORDINARY CASE OF DEFORMITY.

To the Editors of the London Medical and Surgical Journal.

Gentlemen,—A constant reader has been induced, by your communication of Sarah Hawkes' case in a late number of your esteemed Journal, to offer some additional observations, to complete the narrative.

Having been one of her regular visiters, I am able, from personal knowledge, to substantiate all, and even more than you have related, of this wonderful, this unexampled recovery. Your history concludes with the published details, but I am prepared to bring it down to the present time. A brief and simple detail will suffice for the purpose.

She has, from the first, continued in the enjoyment of good health, and been permitted to exercise her limbs more and more as her back was found to acquire strength. This was, of necessity, very infirm when the treatment concluded; and how could it be otherwise, when the spinal column was actually bent into the form of a contracted horse-shoe? This unparalleled contortion I saw with my own eyes repeatedly; many others can also corroborate the fact from the evidence of their senses.

The attendants, from not sufficiently considering the weakness of her vertebral joints, were, at the early period of her convalescence, too indulgent on the score of exercise, and, in consequence of mistaken kindness, the back-bone gave way under the pressure of the incumbent weight.

The lumbar vertebræ were again considerably bent, and along with the deflection, one leg became shorter than the other. On making the discovery, she was again confined to her couch. This precaution, with appropriate management, was sufficient in a short time to replace and fix the vacillating column. She was soon in a condition to resume her accustomed exercise, at suitable intervals and under careful management.

I can, with truth, assure you, that her figure and health are both perfect, and that her bodily powers improve steadily. I feel confident, from observing the progressive changes in her frame, and the development of her constitutional organs, that she will, ere long, be restored to the full enjoyment of all her faculties. She still resides at No. 6, Meard's-court, Dean-street, Soho, where she may be seen at reasonable hours. I take upon myself to repeat this announcement, which has been often proclaimed, because I have been credibly informed, that influential members of the metropolitan faculty, whose names have been mentioned, still affect to deny the truth of these statements. It is not for me to question motives, but I may be permitted to add, that as these mendacious detractors cannot be prevailed upon to visit the girl, and make inquiries upon the spot, their declarations savour more of prejudice and malevolence, than of a candid and ingenuous disposition.

A small brochure has been some time in circulation, containing two prints, one representing her deformity when at its height, the other her renovated figure. This pamphlet may be procured at Sarah Hawkes' apartment, where the most satisfactory information will be given as to the truth of all that has been advanced in regard to her case. As it is sold for her sole profit, the benevolent will, by the purchase, increase the comforts of a very interesting girl, while they are reading, perhaps, the most extraordinary and most successful restoration of the human figure that has ever been witnessed: certainly nothing like it was ever recorded.

I am, Gentlemen,
Your obedient servant,
VERITAS.

London, July 21st, 1833.

PETITION AGAINST THE COLLEGE OF PHYSICIANS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—As I have no right to the credit or discredit of having signed the petition to which you allude in your last number, I will trouble you in your next to contradict the intimation. It is true that the document was sent to me for signature, but for reasons which it is unnecessary to state I refused to do so.

I take the opportunity of saying that I shall, in the course of a very short time, send a little work on what are called *Mental Disorders* to the critical tribunal of the London Medical and Surgical Journal.

Neither from you nor from any other reviewers shall I ask any further favour than as speedy a notice as may consist with other engagements.

I am, Gentlemen,
Yours truly,
DAVID UWINS.

Bedford-row,
July 21st, 1833.

CLINICAL REPORTS.

BY M. RYAN, M.D., HATTON-GARDEN.

Syphilis—Rheumatism—Thickening of tendinous sheaths—Recovery.

B. S., ætat. 36, a member of one of the learned professions, of low stature, fair complexion, and scrofulous diathesis, enjoyed uninterrupted good health, until ten years ago, when he contracted syphilis, for which he took a great deal of mercury and sarsaparilla. Since that period he has never been well. During the last two years he has suffered severely from rheu-

matism, or secondary syphilitic symptoms, according to some of his medical advisers.

At present he complains of great lassitude, loss of appetite, great mental depression, pains in his arms, legs, and joints, which are so aggravated on going to bed, that he has scarcely enjoyed three hours' sleep during any night for the last six weeks. There is a slightly inflamed tumour on the left instep, and another on the back of the right hand, somewhat similar to nodes, both of which are extremely painful. He cannot walk without support. He has repeatedly taken mercury during the last year and a half, which never affected his mouth, and an immense quantity of sarsaparilla, by the advice of two of the most eminent surgeons in London, but without any benefit to his health or disease. There are three blotches on his cheeks, which resemble mercurial eczema. From the preceding history of symptoms, it was inferred, that he laboured under ill-cured syphilis and chronic rheumatism, or, perhaps, that arthritic affection consequent upon venereal disease. It was, therefore, considered advisable to put him under the influence of mercury; and as this could not be effected in the ordinary manner, it was determined to exhibit calomel in scruple doses, to improve his general health, to administer a full dose of the liq. opii. sedativ. every night, to foment his hand and instep with a strong anodyne fomentation, such as decoction of poppy with tincture of opium, and to apply the opiated iodureted ointment as soon as the inflammation was diminished. He was advised to take a mild nutritious diet, and ordered the following medicines:—

℞. *Hydrarg. submur.* ʒ j. *Pulv. rhei,* ʒ ss. *Pulv. camphoræ,* gr. x. *Pulv. arom.* ℈ ss. *in chartulas* iij. *divide. Capiat unam singula nocte.*

He was informed that this was an unusual though a perfectly safe mode of using mercury, lest the person who prepared the prescription should suppose the dose excessive and dangerous, which ultimately occurred, for so much astonishment was excited, that the powders were marked poison. The sedatives already mentioned were used regularly; and in two days, an ointment composed of iodine ℈ j. hydriodate of potass ℈ ij. adeps ℥ j. acetate of morphia gr. ij. was applied to the hands and foot. The digestive system was attended to, and the following pills prescribed for that purpose:—

℞. *Pil. rhæi c.* ℈ j. *Pil. Hydrarg.* ℈ ss. *Quinæ sulph.* gr. x. *Olei menthæ pip.* ♏ v. *in pil* xviij. *divide. Sumatur una ter in die.*

The patient continued all his medicines for nine days, when his symptoms rapidly diminished; his mouth became slightly affected, all his pains decreased, the blotches on his face and the local swellings on his limbs declined, and in three weeks he was free from his complaints. His recovery was rapid, he fell into flesh, and now enjoys perfect health.

The exhibition of scruple doses of calomel in syphilis, peritonitis, uterine phlebitis, tropical dysentery, cholera, yellow fever, and chronic hepatitis is now so well established as to require no attestation of its certainty and safety. The camphor, according to Dr. Musgrave, ensures the efficacy of the mercury. I have used calomel in such doses in puerperal and common peritonitis with almost invariable success; but in these cases some opium should be added to prevent hypercatharsis. The inunction of mercurial ointment on the axillæ will excite tenderness of the gums and slight ptyalism in a few hours, which is a matter of great importance in inflammation of serous membranes. It is scarcely necessary to observe that mercury cannot be used indiscriminately or in large doses, until after we have inquired whether the patient had ever used it on a former illness, and learned its effects. Were we to omit this precaution, and exhibit the medicine freely in all cases, we should do great mischief; for every body knows that a single grain of mercury

may induce violent salivation in some persons. I have attended six cases of peritonitis with Mr. Kenny, of the Strand, and Mr. Appleton, in which all ordinary means had been tried ineffectually, when mercurial inunction on the axillæ, and scruple doses of calomel caused salivation in a few hours, and saved the patients. In one of these cases, which was under the latter gentleman, there was coffee-coloured vomiting, cold clammy perspirations, and hiccup, when the ointment was rubbed on the axillæ, in drachm doses, every quarter of an hour. This may appear dangerous practice to some persons; but when the most fatal symptoms appear, in despite of all other remedies, I think it not only justifiable, but invaluable. We are indebted to Dr. Hamilton, of Lyme Regis, for the employment of small and repeated doses of calomel with opium in serous inflammations, and to our Continental and colonial contemporaries for the use of these remedies in abdominal inflammations.

Enteritis and Peritonitis without the ordinary symptoms.

My friend, Mr. Hughes, of High Holborn, called accidentally at one of the hotels to pay a friendly visit to the lady of the house, when, in the course of conversation, she observed that one of the maids was complaining of being unwell, and had just gone to her apartment. Her case was so slight that the lady scarcely considered it necessary for Mr. Hughes to see her; but, on consideration, requested him to do so. The patient was an extremely healthful looking young woman, about twenty years of age, of a full habit, and florid complexion. She stated that she had been perfectly well until that morning, when she felt indisposed, but could not state any particular symptom. She was ordered a mild aperient and diaphoretic. Next morning Mr. Hughes received a message that she was dead. He requested me to be present at the autopsy. The general appearance of the body was that of a person who had died suddenly in good health; there was the most extensive intestinal and peritoneal inflammation; the intestines were glued together and to the omentum; the liver was adherent to the stomach, and this organ to the spleen. There was about a pint of a straw-coloured fluid effused in the abdomen, in which floated several shreds of lymph. The viscera were otherwise in a perfectly healthy state. We learned that she laced her stays very tightly, and this was the only cause that could be assigned for her disease.

This case proves that abdominal inflammations may proceed slowly and almost imperceptibly, without the symptoms of the acute forms of these diseases; but when we remember that inflammation of the joints and other parts may continue for several months unaccompanied by symptoms of the acute form of that disease, there is no reason to deny that a similar morbid condition may exist in the abdomen. Whoever questions the validity of this conclusion, will find it attested beyond the possibility of doubt in the *Dictionnaire des Sciences Medicales*, and also in the abridgment of that work. Whatever may be our theories, one indisputable fact of this description is worth a thousand of them.

Hæmoptysis.

J. R. æt. 67, a brazier, full habit, sallow complexion, and extremely corpulent, applied to me for advice on the 20th of May last. He stated, that in the year 1796 he was in the habit of taking thirty wineglassesfull of pure malt whiskey almost every morning before his breakfast; and he gradually reduced the quantity to two glassesfull. About sixteen years ago he was seized with spitting of blood, which continued until he filled the chamber-pot. He was admitted, while in this condition, into the Middlesex hospital, under the care of the late Mr. Joberns, and was visited by

Dr. Price, Dr. Yore, and Mr. Cartwright, all of whom considered his case hopeless. Nevertheless he was gradually restored by their treatment. He lost his voice for six months, and one of the gentlemen mentioned was of opinion he could never regain it. He left the hospital in this condition. In a short time afterwards he accidentally met some old friends, and drank gin and water until he became intoxicated. On the second day afterwards his voice returned, and was as perfect as ever it had been. Every year since that period he suffered from spitting of blood, and occasionally from piles. In January, 1831, he laboured under pleuritis and hydrothorax. He was compelled to repose on the right side for three weeks. Was so extremely ill and unwieldy that it was impossible to employ auscultation so accurately as might be desired. The usual remedies were tried with considerable advantage. I need scarcely state to any experienced medical practitioner that the hæmoptysis ceased during this state of things. In the course of this illness he was seized with convulsions, and afterwards with coma. I requested a consultation, and my experienced and able friend, Dr. Uwins, was requested to see him. There was no difference of opinion between us. He recovered, and is now very corpulent, but is never free from cough and hæmoptysis. The blood he expectorates is sometimes red, and as often black-coloured. His respiration is always laborious and difficult. For some years past has led a temperate life.

J. S. æt. 33, has laboured under hæmoptysis for six years. He expectorates a pint of blood daily, the fluid sometimes red and sometimes black. Goes into a cold bath daily throughout the year, and should he fail to do so feels ill. His complexion is florid, and it is impossible to dissuade him from using the cold bath.

M. F. æt. 19, a young gentleman of tall thin habit, predisposed to phthisis. Took a ride on horse-back of twenty miles in July, contrary to my advice; was seized with hæmoptysis, and died the following day. An autopsy was not allowed.

R. C. æt. 21, of middle stature, florid complexion, laboured under hæmoptysis for twelve months, when death put an end to his sufferings.

P. C. æt. 30, of a full habit, florid complexion, and a gentleman who led a dissipated life, suffered severely from the epidemic influenza in April last. In May he was seized with hæmoptysis. The impulse of the heart was so great, that it could be heard in every part of the right side of the chest, and was so strong, that when he was lying perfectly tranquil it shook the bed curtains. The crepitous râle was strongly marked in the left side of the chest. There was a strong pulsation in the epigastrium, synchronous, with that of the heart. Such were the symptoms on the 12th of May. The sputa were florid, and brought up without cough or dyspnœa. Prognosis favourable.

May 15th. Was bled four times; had two blisters applied to the chest. He was ordered digitalis, hydrocyanic acid, and acetate of lead, alternately. Mr. Wray, of Salisbury-square, attended this case with me. The bellows sound and cardiac impulse extremely strong.

May 20th. Bellows sound nearly gone, pulse 72, spitting of blood very much eased. Had taken strong tea of late, which he had omitted for some months past, as it made him very nervous. The sanguineous sputa are black and coagulated.

23rd. Suffers from occasional palpitation, is extremely nervous, pulse 72. His hæmoptysis gradually ceased, and he returned to Ireland in July.

Several cases of this kind have been under my care at St. John's Hospital, after the influenza had ceased, and generally done well.

Reviews.

The Homœopathic Medical Doctrine, or the Organon of the Healing Art, a new system of Physic. Translated from the German of S. Hahnemann. By CHARLES DEVRIENT, ESQ. With Notes by SAMUEL STRATTEN, M. D. 8vo. pp. 332. Dublin, Wakeman; London, Simpkin and Marshall.

OF all the nonsensical reveries that have passed through the brains of medical writers, this of Hahnemann is the greatest. The author was engaged day and night since 1816 in concocting his reveries, and discovering his gospel of medical salvation, which is as follows:—that all chronic diseases are different transformations, and are caused by syphilis, sycosis, or itch. All diseases of the skin so minutely described by authors, are modifications of itch, warts, deformities of bones, bleeding from the nose, rectum, lungs, stomach, womb, kidneys, &c. &c.; in fine, itch is ultimately declared the cause of all chronic diseases. Another discovery equally brilliant, is that all our present methods of treatment are highly injurious to life and health. The greatest of all the author's discoveries is, that the hundredth part of the sextillionth of a grain acts with such great vigour as to be appreciable in nineteen days. We are struck with astonishment that any physician in his senses could be found on the surface of the globe to give the least credence to a system based on the most erroneous doctrines, and not a with better than Morison's system of vegetable medicine.

Embryologie, ou Ovologie humaine; contenant l'Histoire descriptive et Iconographique de l'œuf humain. Par A. L. M. VELPEAU, Chirurgien de l'Hôpital de la Pitie, &c. &c. Folio, fifteen plates. Paris, 1833. J. B. Balliere.

A VAST number of the greatest anatomists and physiologists from the time of Aristotle to the present period, have endeavoured to investigate the procreation and development of the human embryo. In the writings of all, there are many contradictions and inaccuracies; and these have led M. Velpeau to examine the conclusions of former writers. He describes the difficulties connected with the subject, and among these is the impossibility of determining the precise moment of fecundation, and consequently the great uncertainty of appreciating differences which are present. Former physiologists commenced with the inferior animals, while our author began with man, and descended to the lowest animal. He divides his subject into two parts, the *annexes*, or appendages of the embryo, and the whole embryo itself. In treating the different parts of his inquiries, he gives a history of the conclusions of each, and confirms or rejects them by numerous original observations. He displays the most profound erudition and great dexterity as an anatomist. He gives fifteen plates, containing numerous representations, elucidating all the peculiarities of the embryo. His work is the most complete that has ever appeared, and places its author among the most distinguished anatomists of modern times.

French Medicine.

Gonorrhœa caused by the Ingestion of the Blennorrhagic Discharge into the Digestive Organs.

BY E. TAZENTRIE, D.M.

A MAN, aged 55, of licentious habits, lately married a woman of 20, and still continued his libertinage. He suspected his wife of infidelity; and he, having contracted gonorrhœa, he purposed to cohabit with her, so that when he communicated his disease, he might accuse her more strongly. She observed his illness, and refused to comply with his wishes. He then hit upon the expedient of mixing his gonorrhœal discharge with milk, beer,

and other aliments. He used this artifice for eight or ten days, when his wife one morning found a basin of milk which he left for her breakfast, which contained a whitish matter. She accused her husband of an attempt to poison her, and took the bowl of fluid to an apothecary for analysis. The husband was intimidated, and acknowledged his perfidy. Dr. T. was consulted by the wife and her mother, and after a most careful examination, discovered the genitals perfectly healthful. Four days afterwards he found all the symptoms of gonorrhœa present. He treated it in the ordinary manner, and soon removed it. The husband also consulted him for his disease, and stated, that on a former occasion he had infected another individual, on whom he sought revenge, with syphilis and gonorrhœa by the same proceeding; and that similar cases happened sometimes in the colonies. This case, the narrator argues, proves the specificity of blennorrhagia, and that it is a constitutional affection. With this conviction he gave mercury to the woman. He states that she did not labour under leucorrhœa, and could not contract her disease from her paramour, whose organs were sound.—*Archives Gen. de Médécine Journ. des Sciences Med., Juin.*

BOOKS.

The Principles and Practice of Obstetric Medicine, in a Series of Systematic Dissertations on Midwifery, and on the Diseases of Women and Children. Illustrated by numerous Plates. By D. D. Davis, M.D., M.R.I.S., Professor of Midwifery in the University of London, &c. &c. 4to. Part XXI. London, July, 1833. John Taylor.

This learned work is now half finished, and when complete will be the best one for reference in our language. The erudite author has cited a host of foreign writers, whose works are unknown to the majority of the profession in this country, while he has enriched the subject of which he so ably treats, with the results of his own extensive experience.

Illustrations of Vegetable Physiology, practically applied to the Cultivation of the Garden, the Field, and the Forest, consisting of Original Observations, collected during an experience of Fifty Years. By James Main, A.L.S. 12mo. pp. 328. Numerous Woodcuts. London, 1833. William Orr.

An excellent and popular view of vegetable physiology.

Treatise on Diseases of the Skin, founded on New Researches in Pathological Anatomy and Physiology. By P. Rayer, M.D.P., &c. &c. Translated from the French by William B. Dickenson, M.R.C.S. 8vo. pp. 400. London, 1833. John Churchill.

This is an accurate translation of one of the best works on Diseases of the Skin. The author has made the most laborious researches, collected from all his predecessors, and examined the facts by actual practice. We strongly recommend this work to every one engaged in the practice of medicine. It should have a place in every medical library.

The Animal Kingdom, arranged according to its Organisation, serving as a foundation for the Natural History of Animals, and an Introduction to Comparative Anatomy. By Baron Cuvier. With Figures designed after Nature, and Illustrated by nearly 500 additional Plates. No. I. July. L. Henderson, Old Bailey. 8vo. pp. 48. Three beautifully coloured Plates.

The lovers of natural history and of comparative anatomy will find this splendid work one of the cheapest ever published. We are absolutely surprised to see 48 pages of small print with three exquisitely coloured plates published at one shilling! Nine figures are represented in this fasciculus.

A Treatise on the Composition and Medical Properties of the Mineral Waters of Buxton, Matlock, Tonbridge Wells, Harrowgate, Bath, Bristol, Cheltenham, Leamington, Malvern, Isle of Wight, Brighton, the Beulah Spa, Norwood, with Instructive Observations on the Drinking of the Waters, and the Use of the several Baths. By Sir Charles Scudamore, M.D., F.R.S., &c. &c. Second Edition, 8vo. pp. 215. Longman and Co.

The Liverpool Medical Gazette, or Monthly Journal of Medicine and the Collateral Sciences, No. I. to VII., from January to July.

A Manual of Experiments Illustrative of Chemical Sciences, systematically arranged, with Remarks on the Nomenclature and Theory, Definite Proportions, Application of Tests for the Detection of Poisons, Examination of Mineral Waters, Vocabulary of Terms, &c. By John Murray, F.S.A., F.L.S., &c. &c. 12mo. pp. 140. Third Edition. London, 1833. S. Highley.

This is a very useful work for those commencing the study of chemistry.

The Title and Index to the Third Volume next week.

All Communications and Books for Review to be forwarded (free of expense) to the Publishers, 356, Strand, near King's College.

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THE END.

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