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THE

BRITISH AMERICAN JOURNAL.

ORIGINAL COMMUNICATIONS.

MEDICAL DEPARTMENT.

ART. XLVI.—*Lingering Labour; Cystocele and Puncture of the Bladder; Delivery by Craniotomy; Cure of the Vesical Fistula through remedial measures alone.* By HORACE NELSON, M.D., late Editor of Nelson's American Lancet, etc.

Through the blunders of some luckless practitioners, at times unintentional, though most generally the direct result of ignorance, many a valuable fact has been gathered in the vast store-house of practical science, and from them very important lessons have been deduced. It will be, I believe, readily granted that no department of the Art of Medicine offers so prolific, at the same time, so ob scure a field, for the exercise either of science and prudence, or of ignorance and rashness as that of Obstetrics. Many a poor creature has, for years, been a silent and patient sufferer under the weight of injuries or infirmities entailed upon her by one to whom, in the most trying period of her woman's existence, she had with confidence, courage, and resignation confided her future welfare and happiness, and indirectly that of her family circle.

Of several cases which it has been my fortune—good or bad—to be present at, as counsel, at various periods or stages of the accouchement, when at the eleventh hour, every thing was given over directly to my care, leaving me to undo what had been done, and to do what had not been done, the following one is, I conceive, well worthy of publication. In it are embodied several very important considerations, and in no case with which I am acquainted were to be found so many of the fundamental rules of Practical Midwifery so distinctly pointed out, the very plain course of treatment to be adopted, and the dangers from its non-due observance so dreadfully and strongly manifested.

In the latter part of the month of December, 1856, I was requested to meet two medical gentlemen, in consultation on the wife of one of them who had been in labour three days and two nights, and was commencing on the third night, it now being after ten o'clock. It may be proper to remark, at the onset, that some little estrangement had existed between the husband of the lady and myself, and that I held no communication with the other, being fully satisfied that he had mistaken his vocation, and would have been far better as Exhorter

and Preacher, in both of which capacities he busied himself when there was a dearth of business in his regular line; this little digression appears the more necessary, as explanatory of the reason why I had not been called in at an earlier period, as for several years I had been the physician to the lady's family. I was certainly surprised when I received a note from the husband requesting my immediate presence, and also to bring forceps and craniotomy instruments.

On my arrival I was informed that, three days before, the patient had been taken in labour with her first child, and that the husband, unwilling to take the sole—if any—charge of the case, had called upon the other physician to officiate, as among a certain class he enjoyed some reputation as a "woman and baby doctor." He came in the evening of the first day and, with occasional short remissions, had been since nearly constantly in attendance at her bed side.

The following particulars were communicated to me:—

The labour had appeared to progress favourably so far as the *quality* and regularity of the expulsive efforts were concerned, but no advance had been made in the descent of the child's head, the proper presentation had not been made out, though it appeared satisfactory that the head and nothing else presented; at a very early period of the labour—during the first night—when the os was but partially dilated, he had ruptured the membranes (!) and had "*helped*" the patient since by the constant introduction of the finger in the vagina, thereby keeping up a never-ceasing irritation of the soft parts. This condition of things continued through that night and the day following, when, no progress having been made, in one of the numerous examinations he accidentally discovered some sort of tumour or bag directly behind the symphisis pubis, which, becoming more tense and prominent during the play of uterine action, he wisely concluded that it could be nothing else save the membranous bag of another child, and that filling up the vagina it most probably interfered with the exit of the first one so long expected; he set to work to rupture the bag, and a tough job he found it to be; however he persevered, and after nearly half an hour's toil he worked the finger through, a few ounces of water were immediately evacuated, and necessarily the tumour disappeared. He informed me, and I verily believe him, that it was the toughest and strongest "bag of waters" he had ever ruptured in a practice of over thirty years! And well he might fearlessly express that opinion as the sequel will show. Nothing, however, was gained by this procedure; and in spite of bleeding, tartarized antimony, and, I believe, the warm bath, not forgetting alternate and repeated doses of secale cornutum and McMunn's Elixir of Opium, the patient became more and more exhausted, highly nervous, and things appearing so very unpromising that the mother of the patient urged my attendance.

Having been made acquainted with the foregoing particulars, I proceeded to make an examination, to which the patient objected solely upon the ground that she was so sore, and that she could not be touched; I poured a small quantity of sweet oil in my right hand which was introduced with the utmost gentleness and as far as could be done without increasing her sufferings, and the oil carefully and freely applied to every portion of the vaginal canal, which was found to be very dry, extremely hot and sensitive, and exhaling the strong and unplea-

sant ammoniacal odour of urine diffused through the bedding as also through the patient's clothes; from my previous acquaintance with the lady and her well known habits of cleanliness, I was at once satisfied that there must be some unusual cause for the present state of things. The examination satisfied me that the case had been seriously tampered with, that in more than all probability the child's life had been forfeited, and that from the state of the parts and the impaction of the child's head, nothing could be done but to complete the delivery instrumentally. Had I been called at an earlier period of the parturient process, the proper and only course would have been to turn the child, but under the present circumstances it would have been folly to have entertained such an idea; the tip of the finger could no where be passed between the head and the brim of the pelvis, and although the uterus was in a perfectly quiescent state, all the power I could exert did not impart to the head the slightest upward movement as is most generally the case—to a variable degree, it is true—when the head is in a favorable position, and it has not been allowed to remain too long wedged in the pelvic outlet.

The next plan which presented itself was the use of the forceps, and here again the following objections forcibly presented themselves:—it was impossible to introduce the blades of the instrument it being of the short description—sufficiently high to attain a good and reliable purchase upon the head; secondly, it imparted the feeling of thorough ossification, and from the absence of the fontanelles, and but a very faint trace of one of the sutures, the sagittal, passing from left to right, and the feeling of the ear, the stereotype guide of many writers and practitioners, being entirely out of the question, I was left with no reliable "landmarks" to fix with any degree of certainty the presentation; however, to satisfy all parties, I endeavoured at two different trials to apply the instrument, when having failed as I had told the friends such would be the case, nothing now remained to be done but to perforate the head, lessen its volume, and extract the child with the hook. The left hand having been introduced in the vagina so that the index and middle fingers rested on the head, about the centre of the pelvic brim, Smellie's scissors were now passed along the hand and groove formed by the two fingers, and the boring operation commenced; if the Doctor had encountered a hard job in rupturing the *second* bag of waters, I had now more than I had bargained for in making a hole through the cranial bones—it was sometime even before I could make any impression on them, and it led me almost to suppose that I was trephining a dry skull with a most wretchedly dull instrument. Finally, an opening was effected, the handles of the instrument were now confided to one of the doctors, and while my left hand maintained its original position as guard to the maternal soft parts, he worked away one hand on each handle, alternately closing and opening them, then with a rotatory motion till the instrument had fairly penetrated the cranial cavity. I had now unquestionably discovered the cause of the past and present trouble, the extraordinary degree of ossification of the bones, and knowing that one opening only would not answer, and not being provided with a cephalotribe or some other instrument of the kind to crush the osseous structures, two more openings were made and the intervening portions of bone broken down and removed with the blunthook. This part of the operation necessarily occupied a little time, and re-

quired some few changes of hands, as well as respites from pretty strong and warm work. The next step was to introduce the sharp hook, and fix it securely upon some resisting portion of the skull, which was effectually done on the margin of the foramen magnum; obtaining the assistance of one of the doctors with a long pull, a strong pull, and a pull "altogether," I succeeded in bringing the head through the external parts, and shortly afterwards the rest of the body was delivered. The placenta was found loose in the upper portion of the vagina, and was easily and promptly removed. There was little or no hemorrhage, and, considering the length and severity of the labour, the patient did remarkably well; and, so far as the confinement was concerned, she made as fair a recovery as could be expected, excepting a constant and annoying dribbling of urine, proceeding, as will be explained in the next number of the *British American Journal*, from a vesico-vaginal fistula, which baffled her utmost care and endeavours to secure any degree of comfort or cleanliness.

(*To be concluded in the next number.*)

27½ Little St. James Street, 4th July, 1860.

PHYSICAL DEPARTMENT.

ART. XLVII.—*On the Track of an Animal lately found in the Potsdam Formation in the neighbourhood of Perth, C. W.* By Sir W. E. Logan, F.R.S., *Director of the Geological Survey of Canada*, Montreal.

The Potsdam sandstone is recognised in Canada and New York as the base of the Lower Silurian series. As far as we are certain of the formation in the province it rests unconformably upon the Laurentian series; but on the north shore of Lake Huron, the Huronian series supports unconformably a sandstone which has been supposed to be Potsdam; as no fossils, however, have been met with in it there, its equivalence is somewhat doubtful, particularly as the superior fossiliferous rock into which it passes, appears to be of the Bird's-eye and Black River group.

Mr. Barrande in a paper communicated to the Geological Society of France about a year ago, compares the Potsdam formation with the Primordial Zone, and appears disposed to unite it with the strata marked by *Paradoxides* near Boston in Massachusets, and Placentia Bay in Newfoundland, the first locality yielding *Paradoxides Harlani* which he identifies with his *P. spinosus*, and the latter Mr. Salter's *P. Bennetii*, and probably other allied genera and species. But while no well ascertained Primordial species have been met with in the Potsdam of Canada and New York, the formation appears in Canada to be rather allied to the strata above than those below it.*

In the Potsdam of Canada and New York, independent of fucoids, the number of species, of which the forms have been either wholly or partially preserved,

* Since this paper was read, it has been ascertained by Mr. Billings, that the trilobites found in the Potsdam at Keesville, New York, and presented by Mr. Dana at the meeting of the American Association at Montreal in 1857, belong to *Conocephalus*, one of the genera characterizing the Primordial Zone in Bohemia.

is only three. Two of them are *Lingulæ*, named by Hall *L. prima*, and *L. antiqua;* and while these so far resemble one another that they might by some palæontologists be considered varieties of one species, we in Canada have a *Lingula* (*L. Belli* of Billings,) in the Chazy, which might almost be considered another variety of the same species, the peculiarity of them all being the length and sharpness of the beak. In Canada there is also found in the Potsdam, the impression of the spire of a large flat *Pleurotomaria*, which so strongly resembles the spire of *P. Laurentiana* (Billings) of the Calciferous, that they can scarcely be distinguished. In addition to these upward affinities in the only preserved forms, there are beds of passage between the Potsdam and Calciferous formations, in which the strongly marked distinctive lithological characters of the two are well preserved, and at St. Timothy on the Beauharnois Canal those beds of the inter-stratification which are allied to the lower rock are occasionally marked by *Scolithus linearis* (Hall), supposed to be ancient worm-holes, by which the Potsdam is characterised in many parts.

Immediately beneath these beds of passage are the celebrated foot prints of Beauharnois, to which Professor Owen has given the name of *Protichnites*. Since these were described by Owen, nothing has been discovered to throw further light upon the forms of the animals which made these impressions; but in thinning a large specimen with some of the tracks on it, for the purpose of placing it in the museum of the Geological Survey, it was ascertained that the surface on which the traces were impressed must have been subject to the ebb and flow of a tide. The surface on which the tracks are impressed and the one immedi ately beneath, shew ripple-mark; the next in succession which is about an eighth of an inch below, shews wind-mark, in a number of sharp and straight parallel ridges from two to four inches long and an eighth or a quarter of an inch wide. These characterize a considerable surface, and are precisely similar to the marks so familiar to every person who has examined blown sand. The surface must thus have been alternately wet and dry, and the organic remains of the formation being marine, we have thus pretty clear evidence of a tide.

Proverbially unstable as water is, the mean level of the sea, that is the point which is half-way between high and low water, is supposed to be the least changeable level on the face of the globe, and taking it to be now pretty much as it was during the Lower Silurian period, we establish the means of knowing approximately how much the position where the tracks are found, is higher than it was when these were impressed, the limit of error being the number of feet which would represent the differ ence between the ebb and flow of the sea in the locality, or perhaps not more than fifty feet. We have thus a bench-mark to test the rise not only of these strata at Beauharnois, but of their equivalents, wherever else they may be met with.

Finding that this ancient sand bank was exposed at the ebb of tide we naturally look out for some coast to which it was related. The Potsdam sandstone terminates some twenty miles to the north at a very low angle against the foot of the Laurentide hills, which rapidly rise up 500 or 600 feet above the Silurian plain. There is little doubt that we have in the flank of those hills the ancient limit of the Lower Silurian sea, the shore of which is thus traceable from Labra-

dor by the north-west, to the Arctic Ocean, a distance of 3,000 miles. But though we have thus evidence of a Lower Silurian dry land and can scarcely suppose that it was wholly destitute of vegetation, we have not yet discovered any certain drifted vestige of its plants along many hundred miles of its coast.

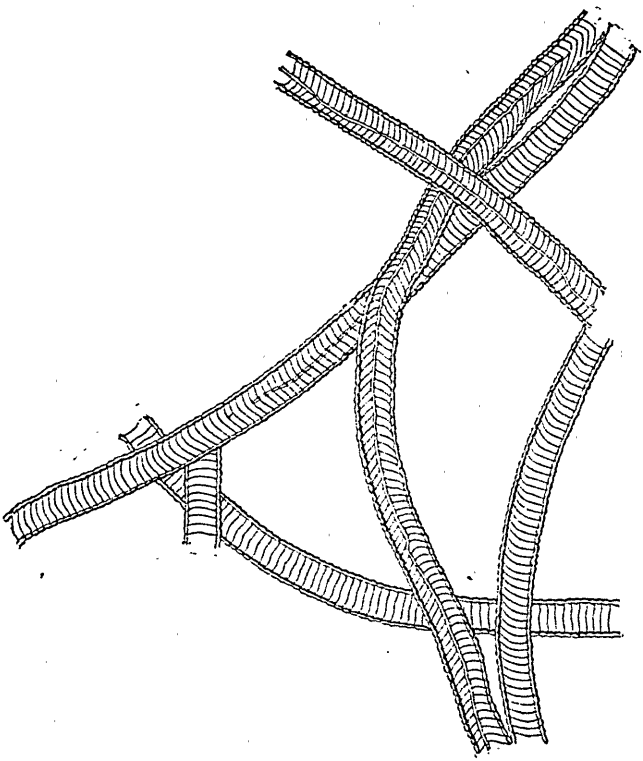

Fig. 1, One-thirtieth nat. size.

The crustacean which impressed the tracks at Beauharnois must have been a littoral animal, tracks of which have now been found in several places nearer than Beauharnois to the marginal limit of the sea to which it belonged. These localities are St. Ann, Vaudreuil, Presqu'ile, Lachute, and St. Elizabeth, and they were last year observed in the neighbourhood of Perth. In the last locality they are associated with a new and remarkable description of track for the discovery of which we are indebted to my friend Dr. James Wilson of Perth, who sent me specimens of it in the month of November last.

The largest of the specimens was between two and three feet long by a foot wide, and the track upon it so singular that I became desirous of obtaining a greater extent of the trail. For this purpose, in the beginning of December, I sent Mr. Richardson to Perth, where he was guided to the quarry by Dr. Wilson, and shewn the bed in which the tracks occur. The quarry, of which the strata are nearly horizontal, is about a mile from the town, and with the aid of Mr.Glyn, the proprietor, Mr. Richardson obtained in fragments, a surface which

measures about seventy-six square feet. To obtain this required a good deal of patience, for there was half a foot of snow on the ground, and from under this it was necessary to remove between two and three feet of rock in order to reach the bed. The rock is a fine grained white sandstone similar to that in which the *Protichnites* occurs at Beauharnois, and of that pure silicious character which is so well known to belong to the Potsdam formation wherever it is met with. The tracks are impressed on a bed which varies in thickness in different parts from one-eighth of an inch to three inches. When the upper bed was removed large portions of the track-bearing bed came away with it, and it was necessary to separate the layers. This was done by heating the surface with burning wood placed upon it, and then suddenly cooling it by the application of snow. This of course cracked and destroyed the thin bed with the impressed tracks, but it left the mould of them on the underside of the upper bed, and by plaster casts from this we have obtained the true form of the original tracks.

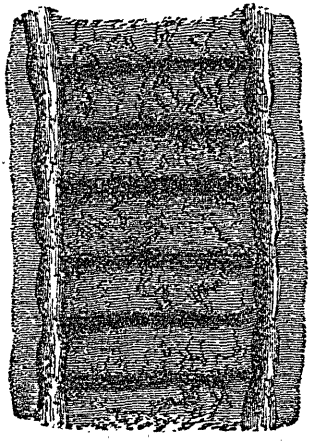

Fig. 2, One-fifth nat. size.

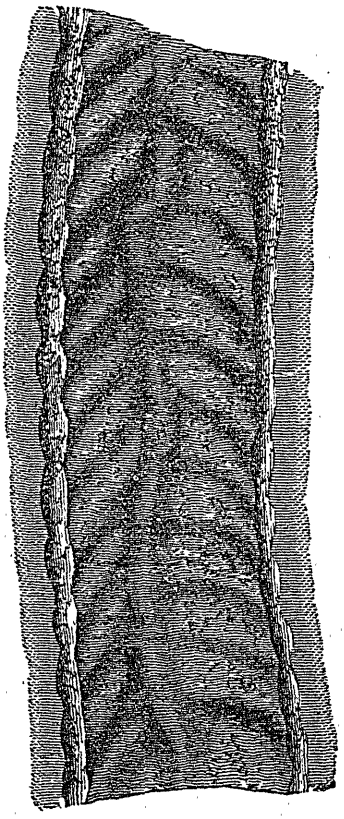

Fig. 3, One-fifth nat. size.

These tracks consist of a number of parallel ridges and furrows something like ripple marks, which are arranged between two narrow continuous parallel ridges, giving to the whole impression a form very like that of a ladder, and as the whole form is usually gently sinuous it looks like a ladder of rope. The surface obtained shews six different trails, (Fig. 1,) the longest of which is about thirteen feet, but they are all of the same breadth, and they may all have been impressed by one and the same animal. The breadth of the trails is about six inches and three-quarters to the outer sides of them.

The transverse ridges and furrows are sometimes straight (Fig. 2,) and sometimes curved (Figs. 3-4-5.) When straight and regular they measure about an inch and three-quarters from the middle of one furrow to that of the next. The height of the ridge is usually from one and a half to two lines, and from the highest part the dis-

tance to the middle of the furrows is about an inch and a quarter on one side and half an inch on the other, thus giving to the ridge a sharper slope on the shorter side. The tops of the ridges, and the bottoms of the furrows are somewhat rounded.

Though the transverse ridges are occasionally straight (Fig. 2) they are in general either slightly or considerably curved (Figs. 3-4-5), and when so, the chord of the curve is seldom quite at right angles to the direction of the parallel side ridges, one end of the chord in the greatest obliquity observed being as much as two inches and a half in advance of the other (Fig. 3). The height of the curve above the chord is sometimes as much as an inch and three quarters. It is often somewhat pointed, and the highest part is not always in the middle between the parallel side ridges (Fig. 4). The concave side of the curve is always on the steeper side of the tranverse ridges.

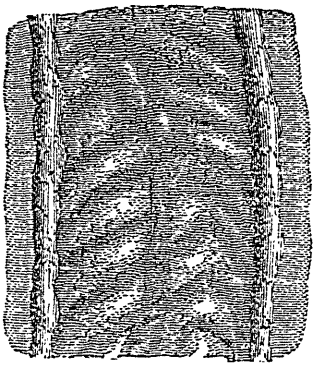

Fig. 4, One-fifth nat. size.

There runs along the track a ridge intermediate between the two parallel side ridges, (Figs. 3-4-5), and though it is not so conspicuous as these, it is seldom altogether wanting, but appears to be, most obscure when the transverse ridges or rounds of the ladder, are straight. This intermediate ridge does not keep parallel with the side ridges, but occasionally runs in sinuous sweeps from within an inch and a half of one side (Fig. 5) to the same distance from the other; sometimes however, it runs nearly parallel with the sides for a considerable distance, either in the middle or somewhat on either side of it. In one of the tracks there is in the course of the intermediate ridge a sudden dislocation of an inch and a quarter (Fig. 3 towards the top,) on the opposite sides of one of the transverse ridges. The course of the intermediate ridge appears in general to coincide with the successive most salient parts of the transverse ridges when these are curved, but this is not always the case (Fig. 4). The intermediate ridge appears most conspicuous where it crosses the transverse furrows, yet its crest or line of summit seems to undulate with the ridges and furrows, though not to so great a degree.

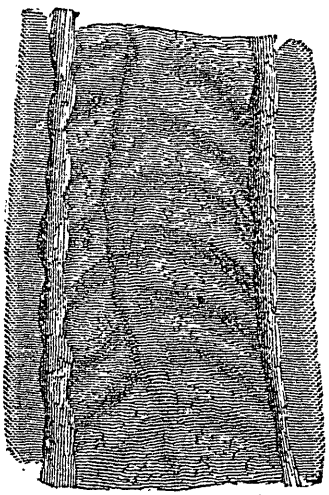

Fig. 5, One-fifth nat. size.

The inner flanks of the side ridges appear to be continuously even surfaces, making an angle of 155° with the plane of the intermediate spaces, and against these sloping flanks the surface of the transverse undulations forms a decided,

though very obtuse set of angles, just like waves rolling along an inclined plane in the direction of its strike. The side ridges are rounded at the top, and while their exterior flanks are more precipitous than the interior ones, they swell out opposite to each transverse furrow, thus giving to the side ridges a beaded or knotted aspect, each bead of the series standing opposite a furrow. The highest part of these lumps is about three lines above the bottom of the furrows, and about a line and a half above the surface on which the track is impressed.

My naturalist friends to whom I have exhibited the specimens appear disposed to consider the tracks those of some species of gigantic mollusc, and I am given to understand there is now living some small mollusc, whose track presents a series of transverse ridges and furrows, without, however, the longitudinal ones. From the resemblance of the track to a ladder, the name proposed for it is *Climactichnites Wilsoni*, the specific designation being given in compliment to its discoverer, Dr. Wilson.

Montreal, August 18, 1860.

REVIEW DEPARTMENT.

ART. XLVIII.—*Report of the Medical Superintendent of the Provincial Lunatic Asylum*, Toronto: for the year 1859, addressed to the Inspector of Asylums, &c., &c., for Canada. By JOSEPH WORKMAN, M.D., Superintendent Provincial Lunatic Asylum, Toronto.

This Report, though comparatively brief, is able, and well written. The author states in the conclusion that he had endeavoured "to construct it (the Report) with the double reference of adaptation to the conveyance of useful and interesting public information in this Province, and to those requirements which the eminent qualifications of your Board, and the present state of psychological investigation in other countries appeared to me to indicate." This is a true description of the nature of the document. The first item of information we meet with is, that the Government in the course of last summer (1859) established a branch Asylum at Fort Malden, near Amherstburgh, Canada West, and placed it under the charge of Dr. Andrew Fisher, previously "an esteemed and valuable assistant" of Doctor Workman. Between the months of July and December no less than 146 patients were removed from the parent institution to that at Fort Malden, a fact which goes to prove that the latter establishment was not a little needed, and that the work, and responsibility at the Toronto Asylum, before this relief came, must have been heavy indeed But, alas! for poor suffering humanity, the report tells us that "the rapidity with which the vacated beds have been taken up, and continue to be called for, leaves no doubt that in a very short time this asylum will be again fully tenanted."

We find on page 2 of the Report that the total number of admissions into the Toronto Asylum as recorded in the 19 years which have elapsed since the opening of the Institution has been 2244, of which 1225 were men, 532 married, 693 single, and 1019 women of whom 635 were married, and 364 were single. The learned author of the Report remarks that he does not regard these figures as "reliable indicators of the actual incidence of insanity in the sexes;" and adds "that taking the admissions of the last seven years instead of those of the entire period, it is found that "the admissions of women have exceeded those of men." This statement is followed by some highly important remarks respecting the comparative liability to insanity of married and unmarried life, in which from a well recognised cause a terrible preponderance of this calamity is given to the unmarried class, and in alluding further to the vice indicated we have the fearful statement of fact, that "the Asylums of this continent abound with the wretched victims of this apparently concomitant curse of advancing civilization, a curse which medical alienists regard not as the result of ignorance, but as one of the products of that which is called improved modern education." Here we have a further appeal, founded on an awful experience, to those in whose hands is the guardianship of education, to attend to the heart as well as the head. It is vain to expect that improvements in medical science can keep pace with the physical and mental misery generated by a system of public education which does not regard religion as its guiding star. In proof of this Dr. Workman tells us "that every American Asylum physician will corroborate the statement as to the sad concomitancy, between *our system of youthful training* and the constantly augmenting population of our insane institutions."

A very important question examined in the report, and with great care is, "whether all the patients declared recovered and accordingly discharged have actually been fit for discharge?" The author of the Report finds too much reason to believe in the tendency of the malady to recurrence; but at the same time he shews clearly that in the history of the Toronto Asylum, the proportion of re-admissions depends mainly upon the length of the first great period of treatment. As might be expected, the result of Dr. Workman's humane care in this regard is that latterly patients are discharged only in good time, and that consequently the figures shewing relapsed cases are being much diminished.

There is much more of interest in this excellent Report which we cordially recommend to the perusal of professional men. The section occupied by "post-mortem" details is one well worthy of study as shewing with a most praiseworthy minuteness, the various and varied internal condition of not less than twenty out of thirty-eight subjects, the number of deaths during the year.

The report speaks loudly in favour of Dr. Workman's untiring assiduity in his duties; and much as his appointment to his present office was cavilled at at the time, we question much, if another could have been selected, who could more faithfully have discharged those duties, or brought to his task a more efficient singleness of purpose.

ART. XLIX.—1. *The Retrospect of Medicine, &c.*, edited by W. BRAITHWAITE, Lecturer on Obstetric Medicine at the Leed's School of Medicine, &c. Vol. 41, January to June, 1860. London: Simpkin, Marshall & Co. Montreal: Dawson & Son. Royal 12mo.

2. *The Half Yearly Abstract of the Medical Sciences, &c.*, Edited by W. H. RANKING, M.D., and C. B. RADCLIFFE, M.D. No. 31, January to June, 1860. Philadelphia: Lindsay & Blakiston. Montreal: Dawson & Son. American edition, 8vo.

Little requires to be said at our hands in commendation of these two favourite serials of the Profession. Travelling both the same path, or dropping metaphor, both containing a selection of the best medico-literary papers which have appeared in the European and American Medical periodicals, during the six months preceding the date of their issue, the difference between them will be found to consist in the circumstance that the latter contains a brief critical notice of the most important monographic works in the medical sciences which have emanated from the press during the same semi-annual period. Both these valuable publications should be in the possession of every medical practitioner, because they contain in short compass a mass of valuable information utterly beyond the reach of any single medical man in any other form; and it is in this fact that their excellence and intrinsic merit consist.

While thus alluding to Braithwaite's Retrospect, we have been somewhat surprised at not having received the fifth and concluding volume of the Epitome. Having got through four volumes, we trust that the laborious Editor has not broken down in the compilation of the fifth and last promised number. We must confess, what looks something like it, that we have not noticed the reception of this volume by any of our American cotemporaries, but we hope for the best, and are anxiously awaiting its apppearance.

ART. L.—*The Physicians' Visiting List, Diary, and Book of Engagements for* 1861. Philadelphia: Lindsay & Blakiston. Montreal: Dawson & Son.

We observe that the enterprising firm of Messrs. Lindsay & Blakiston of Philadelphia are again early in the field with another Diary for the ensuing year. To those physicians who have never yet employed these valuable little pocket books, we most heartily recommend them, as an immense saving of their time in recording their daily work. Those again who have been in the habit of employing them will be happy to hear that those for the year 1861 are now to be obtained, as we are persuaded that, like ourselves, those who have once experienced their great advantage will still continue to use them. Each volume, besides being regulated for the entry of 25, 50 or 100 daily patients, contains also, the following: Marshall Hall's ready method in Asphyxia, Poisons and their antidotes, a table for calculating the periods of utero-gestation, and places to enter separately the address of patients, those of nurses, &c., a memorandum for wants, obstetric engagements and vaccination engagements, and a general

Almanac for the year 1861. We must say that in all our experience we never met with any means half so simple for economizing time, and facilitating the journalization of a day's professional work, and we think that the profession owes much to Messrs. Lindsay & Blakiston, who, we believe, originated the idea and perfected it, for thus enabling it to record in a few minutes, what under the *encien régime* would be the labour of hours, an evening duty which frequently had to be discharged, when wearied out by a previous hard day's work.

PERISCOPIC DEPARTMENT.

MATERIA MEDICA.

MEANS OF DETERMINING THE QUALITY OF MILK.

[The following is an abstract of a paper read before the Dublin Chemical Society on this subject by Dr. H. Minchin.]

When we consider that milk enters, in some form or other, into the composition of the food of almost every member of the community, and constitutes the principal, and in many instances the sole, support of the very young, it is of importance that we should be in possession of some means of ascertaining the comparative purity of a fluid holding the essential place which this does as a dietetic substance. Probably but few articles of food are more frequently subject to fraudulent adulteration than the fluid in question. But, although many substances are supposed to have been employed for the purpose of imparting colour or consistence to milk which has been previously diluted, the evidence of very numerous experiments is in favour of the belief, that perhaps, in most instances, the pump is the chief or only contributor; the dealers being quite aware of the fact that, while chalk, starch, flour and colouring matters can be detected with tolerable facility, the admixture of water will admit of being practised pretty largely, and yet fail to be exposed by the tests ordinarily employed.

The principal constituents of milk are—cream, or oily matter, casein, or cheese, sugar, saline matters, and water. The proportion of each is variable in different milks; but however the relations of the first four may vary amongst themselves, it may be stated as a general rule, that milk which presents more than 87 per cent of water is of inferior quality. On taking the average proportion of the ingredient according to the analysis of Simon, Herberzer, Lecanu, Coussingault and Le Bel, Chevalier and Henri, and Haiden, it is found to be 86·8 per cent.; and, when it is known that the principal, and in many cases the only, fraud practised by dealers in milk, consists in the admixture of water, the first object of the analyst should be to ascertain the per-centage of this ingredient. If 87 be assumed as the standard, a very simple process will in many cases be sufficient to detect the degree of dilution to which the sample has been subjected. Evaporate 100 grains to dryness; ascertain the loss, from which deduct 87; the difference then, multiplied by 100, and divided by 13, will give the per-centage of added water; thus, suppose 100 grains to lose on evaporation 89·6 grains, then 89·6—87=2·6, and 260 divided by 13 gives 20 per cent. of water added.

To determine with accuracy the quantities of the proper constituents of a given specimen of milk will, of course, require that it be submitted to a chemical analysis, for which purpose an expensive apparatus is necessary, while the process is of necessity both tedious and laborious, and not at all adapted to the requirements of ordinary cases, in which a daily examination must be made. It therefore became necessary that some

more simple method should be devised of estimating approximatively the qualities of this fluid. The several modes of milk-testing which have been suggested are well known, the principal being—1st, the lactometer, or cream test of Sir Joseph Banks; 2nd, the hydrometer, or specific gravity test; 3rd, the lactoscope of M. Danné; and 4th, the microscope.

It may be necessary to make a few remarks on the use of these several instruments, and first, of the lactometer.

A glass tube of about eleven inches long, and half an inch in diameter, is filled with milk to within a short distance of the top, the surface of the fluid beingmade to coincide with a transverse line drawn on the tube, and marked zero; the capacity of the tube from this line downwards is divided into one hundred equal parts or degress. When the tube thus filled has been suffered to remain undisturbed for a definite time, say twelve hours, or twenty-four hours, the quantity of cream which shall have separated spontaneously during that time is ascertained by an inspection of the instrument held in a proper light, as the inferior limit of the stratum of cream is generally defined with a sufficient clearness to enable one to read off accurately the per-centage of this ingredient which has become separated from the milk within the time specified. In using this instrument, it is necessary to observe certain precautions: the milk should be quite fresh, but the tube should not be filled till the milk has cooled down to the temperature of the place where it is destined to remain while at rest; the entire mass of milk should always be well stirred up immediately before the sample to be tested is taken out; the lactometer when filled should be left undisturbed for about twelve hours if the weather be warm, for twenty-four if it be cold.

Milk which has been thus tested is said to show a certain per-centage of cream, and the higher the number of degrees indicated by the lower edge of the cream-stratum, the more of this ingredient is the milk supposed to possess. As far as this goes, nothing can be more simple and satisfactory, if it were only true, but it can be shown that the indications of the instrument in question are fallacious, and calculated to lead to the most erroneous conclusions, especially in the case of those milks in regard to which it is most important that the information supplied by this test should be as accurate as possible—for example, in those cases in which milk is supplied by contract in large quantities to public institutions. The fact is unquestionable that contractors are in the habit of supplying a liquor which they call milk, at a price so excessively low that they must either add a large proportion of water, or sustain a serious loss; and the managers of large institutions are often satisfied to accept this so-called milk at the price agreed upon, provided the lactometer shows a certain per-centage of cream. In reference to the effect which the addition of water to milk exercises on the indications of the lactometer, Dr. Hassall, who has made the analysis of very numerous specimens of milk, makes the following remarks:—

"It is stated," he says, "that the addition of a small quantity of warm water to milk increases the amount of cream: the belief in the accuracy of this statement is entirely erroneous: it merely facilitates and hastens, in a most remarkable manner, its formation and separation, as is shown by what follows:

"Six lactometers were filled, one with pure milk, the remainder with the same milk diluted respectively with 10, 20, 30, 40, and 50 per centages of water.

"In 20 minutes, the lactometer containing pure milk showed but half a degree of cream; in 40 minutes it showed 4°; and at the end of 12 hours it showed 9°.

"The instrument containing 50 per cent. of water showed in 20 minutes 6° of cream; in 40 minutes 6½°; and at the end of 12 hours 5°.

"The rapidity with which the cream was thrown up on the other 4 tubes, viz., those containing 10, 20, 30, and 40 per centage of water, was proportionally great; the two extreme cases have been quoted merely in order to exhibit more prominently the results which were obtained.

"It thus appears," continues Dr. Hassall, "that the addition of a large quantity of water to milk occasions an almost immediate formation of cream, but does not augment the amount; of this fact, in some cases, it would be an advantage to dairymen to avail themselves. The addition of water to milk of course lessens its specific gravity, and so facilitates the ascension of the cream."*

Now, it would appear from this experiment that we are warranted in deriving a conclusion quite opposed to that just quoted. Here we have 100 parts of pure milk exhibiting 9° of cream; while 50 parts of the same milk mixed with 50 of water are found to yield 6½° of cream. But the relative proportion of cream existing in the pure and diluted milk is as 2 to 1; while the proportion separable from the two fluids respectively is shown by the lactometer to be as 1·385 to 1 (9 to 6½). It is plain, therefore, that the per-centage announced by this instrument is not a true index of the richness of the fluid examined.

With regard to the hydrometer, or specific gravity instrument, it is almost unnecessary to say that experience has long since shown it to be quite inapplicable as a means of ascertaining the purity of milk. The normal density of milk has been variously stated by writers, some placing the average density at about 1029, others at 1038, others, again, at some intermediate number. But, whatever may have been the original density of a given sample of the fluid, it is capable of being lowered by the fraudulent admixture of warm water, and raised again to the former figure by the abstraction of a portion of the cream; for the latter will separate rapidly, owing to the previous addition of warm water, and thus the double description is capable of being carried into effect within a very short period after the milk has been first drawn, and will of course fail to be detected by the hydrometer. It has therefore, been suggested that the lactometer should always be used in combination with the hydrometer, one being supposed to serve as a check upon the indications of the other.

A very ingenious mode of determining the richness of milk was devised some years since by M. Donné. The instrument which he employed, called a lactoscope, is constructed on a different principle altogether from either of the foregoing, and professes to enable one to judge of the richness of a sample of milk, by measuring the thickness of a film of this fluid through which a luminous body, placed at a certain distance, can be discovered; the more dilute the milk, the thicker will be the film through which the light will be transmitted, and the measure of thickness is provided for by a scale attached to the instrument.

The chief objections to the employment of the lactoscope, at least for ordinary every day use, would appear to be not only its high price, but the difficulty of keeping it in good working order, owing to the delicacy of its construction. It requires to be taken asunder every time it is used, and if not thoroughly cleansed and dried in every part, the screw becomes clogged and its action embarrassed; in fact, if it gets into careless or unskilful hands, it will not fail to become, in a short time, unserviceable.

Lastly, of the microscope. With the aid of this valuable instrument the number, size, and shape of the oil, or cream-particles, can be easily recognized by any one who has become expert in its manipulation, and in this way may be formed a tolerably fair estimate of the quality of any given sample of milk; it must be admitted, however, that few, comparatively speaking, have attained to the requisite degree of skill and experience to enable them to pronounce at once a decisive opinion from the use of this instrument without some collateral aid. The expense of a good microscope is also a serious impediment to its general adoption as a lactoscope instrument.

It will appear, therefore, from what has been stated in the foregoing remarks, that an instrument which, in the hands of ordinary observers, will supply the means of determining approximately, or in a rough way, without much trouble, and in a short time, the comparative richness of milk, is still a desideratum. The practical difficulty

* "Food and its Adulterations," p. 329.

which has attended the employment of the several methods of milk-testing hitherto in use, is to be attributed in some measure to the fact that upon any scale that can be devised, upon any principle whatever, there is not one point to which we can refer as a standard of purity. The nearest approach we can make to the establishment of such a standard is to ascertain, by experimenting on several specimens of average quality and known purity, whether we can seize upon some physical property which admits of sufficiently accurate measurement for the purpose; then, it has been ascertained that an inferior quality is indicated when the specific gravity is below a certain range—but this can be raised artificially by the abstraction of some of the cream; an inferior quality is also indicated when the per-centage of cream is less than a certain number; but the instrument employed for exhibiting this per-centage is found to be fallacious, inasmuch as it only shows how much cream has floated to the surface in a given time, and experiment has proved that the richer the milk the less is the cream disposed to float. Many persons are able to judge pretty accurately as to the quality of milk, by carefully observing the transparency which the fluid exhibited when poured in a thin film from one vessel to another; and it would appear that this property, which has already suggested the instrument of M. Donné, might be again turned to account in the construction of a more simple instrument, which would indicate definitely, and enable us to register numerically, the degree of transparency possessed by a given sample; and we should be thus in possession of a very efficient means of estimating the degree to which the milk had been diluted, or how far it fell short of the average quality.

Such an instrument has lately been invented; the principle of its construction is extremely simple, and the experiments instituted with a view of testing its performance, several series of which have been repeated, appear to have been attended with the most satisfactory and encouraging results. The instrument is made of brass, in the form of a shallow, oblong vessel, capable of containing about an ounce of fluid; the depth of the vessel is made to increase gradually, by means of a slab of white enamel fixed in a gentle slope from one end to the other; this slab is graduated throughout its entire length. Upon this the milk is poured till the vessel is filled, and a cover of plate glass is then put on—this should be done by giving it a sliding motion, to exclude air bubbles. When the vessel full of milk is thus covered, the degree of dilution possessed by the sample under examination is estimated by the number of degress on the enamel which can be read through the glass cover; for, the glass being in contact with the edge of the enamel plate at one end, and separated from it by a gradually increasing interval towards the other, the intervening stratum of milk is made to assume the form of a thin wedge. If the fluid under examination be of a rich quality, abounding in oily and caseous particles, it will possess such an amount of opacity that only a few degrees can be discovered on the subjacent enamel when the instrument is held opposite to the light; if, on the contrary, the specimen be of inferior quality, whether from innate poverty, or the admixture of water, the diminution of opacity thence resulting will be evinced by the enamel scale becoming visible through a deeper part of the fluid, or at a greater distance from the commencement of the scale; the degree of translucency, therefore, can be measured by the number of lines visible through the fluid.—*Pharmaceutical Journal, Aug.* 1860.

NEW APPLICATION OF CHLOROFORM IN NEURALGIA AND IN CERTAIN RHEUMATIC COMPLAINTS.

[At a meeting of the Medico-Chirurgical Society of Edinburgh, Mr. Little, F.R.C.S.E., of Singapore, made the following communication, which we reprint from the *Edinburgh Medical Journal* for April, 1860.—Eds. *Boston Mediaal Journal.*]

During my residence at Singapore, East Indies, I was at one time in the habit of using liquor ammoniæ to produce an immediate blister, when instantaneous counter-irritation was thought necessary in certain cerebral affections, &c.—a piece of lint soak-

ed in ammonia being applied to the part, and covered with oil-silk, when in a few minutes so much irritation was produced as to raise a blister. In administering chloroform to my patients, I noticed that their lips were often partially blistered by it; and recollecting the mode of using the ammonia, I thought of trying the chloroform in the same way, but found that neither oil-silk nor gutta percha tissue would answer. I then used a watch-glass to cover the lint soaked in it, and with the best effect.

The manner of application is to take a piece of lint, a little less in size than the watch-glass to be used (which need not be more than two inches in diameter), to put it on the hollow side of the glass, to pour on it a few drops of chloroform sufficient to saturate it, and then to apply it at once to the part affected, keeping the edges of the glass closely applied to the skin by covering it with the hand, for the purpose of keeping it in position, as well as of assisting the evaporation of the chloroform. This may be done from five or ten minutes, according to the amount of irritation wished for.

The patient during this time will complain of the gradual increase of a burning sensation (not so severe as that produced by a mustard sinapism), which reaches its height in five minutes, and then abates, but does not entirely disappear for more than ten minutes.

To ensure the full operation of the remedy, it is necessary that the watch-glass be rather concave, that it be closely applied to the skin, and that the hand applied over it be sensibly warm. The immediate effect of the application is to remove all local pain in neuralgia, and relieve that of rheumatism.

Its effects on the skin are at first a reddening of the cutis, which in some cases is followed by desquamation of the cuticle; but this depends on the part to which it is applied, and also upon the susceptibility of the individual. In some cases, if the application is prolonged, a dark brown stain remains even for a week or ten days, the same effect as sometimes follows the use of a mustard sinapism.

In Singapore I have used chloroform after this fashion in various neuralgias of the face, in inflammations of the eye and ear, in one case of angina pectoris, in several cases of neuralgia affecting the abdominal parietes, in lumbago, dysmenorrhœa, and in pain attending congestion of the ovary, &c.

Personally, I can testify to its great efficacy in two severe attacks of rheumatic inflammation of the eyes, in which the pain came on periodically about 3, A.M., with such severity that I thought the loss of sight itself would be preferable to its continuance. All other remedies, such as blisters, leeches, opium externally and internally, belladonna, &c., were of no avail in soothing the pain; water, almost boiling, applied by a sponge, giving only a little relief. I then thought of this use of chloroform, remembering how much it had benefitted my patients in other similar affections. The first night, the application of it to the temple relieved the pain in ten minutes; on its return the next night, the application again relieved it; and four times only was it required to remove completely the local pain; allowing, in the meantime, constitutional remedies to produce their effect. Since my return to this country, I have recommended this remedy on several occasions to persons suffering from neuralgia of the face and head, and always with the same good effects as in India; and the other evening one of my domestics was quickly and effectually relieved by it of a painful spasmodic contraction of the platysma myoides muscle, which prevented her raising her head from the chest. The chloroform was applied as directed, with immediate benefit, and next morning she was quite well, though in previous attacks several days elapsed before relief was obtained. I have mentioned this method to several medical men of this city, who have found it of great benefit; and that it may be more extensively known, is my reason for now bringing it before the profession.

Dr. Keiller mentioned that this plan had been tried with success in his wards.

Dr. Wright had used chloroform for similar purposes, by pouring it into a bottle containing blotting-paper, and applying it over the affected painful part. He has found it

sometimes produced vesication, and leave a mark on the skin; but it had been effectual in removing pain.

[Mr. Little has received the following letter from Dr. Sclanders, House Physician to Dr. Keiller in the Royal Infirmary.

ROYAL INFIRMARY, March 14, 1860.

MY DEAR SIR,—I have much pleasure in giving you the result of my experience in regard to the external application of chloroform in the way proposed by you. Soon after you made me aware of it, I saw a friend of mine, who suffered frequently from neuralgia of the left forehead. I proposed the remedy to him, and with the effect of immediately removing the pain. Owing to my having kept it too long applied, vesication ensued. Since then he has had no return.

I have since used it in several cases of neuralgia of the ovary and pleurodynia, as also in two cases of rheumatic pains in the joints, with marked benefit.

I am, yours truly,

DR. LITTLE.] ALEX. SCLANDERS.

CARBONATE OF LITHIA.

Carbonate of lithia exists in many medicinal springs. In several of the recent examinations of mineral waters it will be observed that lithia has been discovered, but its discovery has only been consequent on the search for other ingredients, the analysts, no doubt, believing it to be an unimportant salt.

As the use of carbonate of lithia in medicine is novel, we shall enter fully into its medicinal virtues, and more especially as the salts of lithia bid fair one day to occupy a prominent position as remedial agents.

CHEMICAL CHARACTERS—Carbonate of lithia forms the third fixed alkali, and appears in the form of a white powder; it possesses an intense alkaline reaction, similar to potash and soda—in some of its chemical characters it closely resembles these bases, in others lime and magnesia. The proto-carbonate differs from the other alkaline carbonates in being little soluble in water, requiring about 100 parts, but when dissolved in even 1,000 parts the solution is alkaline; with excess of carbonic acid it is rendered more soluble.

PROPERTIES—One of the most remarkable properties of this base is its power of rendering uric acid soluble. Urate of lithia being the most soluble of urates, M. Lipowitz, who has made great research into the properties of lithia, found, that when the mineral lepidolite is reduced to powder and boiled with uric acid, so great is the affinity of the acid for this base, that urate of lithia is formed, although the alkali was chemically combined with silicic acid. Dr. Garrod remarks "I have also found, that when carbonate of lithia in excess is boiled with water, the addition of uric acid causes it to dissolve, showing that the urate of the base is more soluble than the carbonate itself. The salt formed under such circumstances is the bi-urate of lithia, which crystallises in long needles, and corresponds to the salt of soda found in the blood and tissues of gouty subjects.

Urate of lithia is much more soluble in water than any other of the urate series, but to what extent is not satisfactorily explained. Lipowitz found that one part of carbonate of lithia, in ninety parts of boiling water, dissolved four parts of uric acid, with the evolution of carbonic acid gas, and the salt so formed, deprived from all traces of carbonate, dissolved in sixty parts of cold water.

Mr. A. Ure has ascertained that a solution, containing one grain of carbonate and an ounce of distilled water, when heated to 90° Fahr., and uric acid gradually added in minute quantities, until it ceased to disappear, dissolved 2.3 grains, a quantity much larger that that capable of being dissolved by either bi-carbonate of soda or bi-carbonate of potash. Binswanger found that one part of this salt, dissolved in 120 parts of water, rendered soluble, at 100° Fahr., four parts of uric acid.

To ascertain the power of carbonate of lithia in dissolving urate of soda, Dr. Garrod made the following experiment:—"A metacarpal bone was selected, the phalangeal extremity of which was completely infiltrated with gouty deposit; this was placed in a small glass, and a few grains of carbonate of lithia added, without the application of heat. In the course of two or three days, when the head of the bone was examined, no deposit could be seen, and the cartilage appeared to be restored to its normal state."

MEDICINAL USES.—The salts of lithia have not been used in medicine until recently, and are recommended in cases of uric acid gravel and chronic gouty conditions of the habit. So long ago as 1843, Dr. Ure recommended the use of carbonate of lithia as an injection into the bladder, for the purpose of dissolving calculi; and in an article which appeared in the *Pharmaceutical Journal*, of August of that year, he gives an account of an experiment, in which he discovered that a "human urinary calculus, composed of uric acid, with alternate layers of oxalate of lime, when placed in a solution of four grains of carbonate of lithia in an ounce of distilled water, and steadily maintained at a blood heat during five consecutive hours, lost five grains in weight." The difficulty he experienced in obtaining carbonate of lithia prevented his further research into its power as a solvent for vesical calculi. Nothing appeared to be known of its internal employment. Dr. Pereira conjectured that by its use the urine would become alkaline and Aschenbrenner believed that it might be given in from five to ten grains daily.

"Within the last two years, remarks Dr. Garrod, "I have made many trials of carbonate of lithia as an internal remedy, both in cases of uric acid diathesis connected with gravel, and likewise in several cases of chronic gout, and, from what I have experienced, am satisfied with the results. When given internally, in doses of from one to four grains dissolved in water, and repeated two or three times a day, it produces no indirect physiological symptom, but exerts a marked influence in cases where patients are voiding uric gravel, causing the formation of deposits to become less, or cease altogether. In many instances in which I have administered it to gouty subjects, the result has been to diminish the frequency of the attacks, and altogether improve the condition of the patients. I am of opinion that the salts of lithia offer to the physician most valuable agents in these cases, as their alkalinising property is of the highest order, on account of the smallness of their atomic weight, and their solvent power for uric acid or urates, far greater than that of any other agent: in addition to which, their local influence is slight, and their use does not appear to be attended with any injurious consequences. To demonstrate the superior power of carbonate of lithia in removing the deposits of urate of soda from gouty cartilage, I performed the following experiment:—Solutions were made of the carbonates of lithia, potash and soda, in the proportion of one grain of the dry salt to each fluid ounce of distilled water; into these were placed small pieces of cartilage, completely infiltrated with urate deposit, which were allowed to remain for forty-eight hours. At the end of that time, the cartilage taken from the lithia solution was found to be restored to a natural condition; that from the potash much acted upon, but that which had been submitted to the influence of the carbonate of soda appeared unaltered.

"If the experiment be made with other salts of lithia, as the sulphate or chloride, in comparison with the corresponding salts of soda, the powerful influence of the former base will be at once apparent, for when sulphate of lithia, in dilute solution, comes in contact with urate of soda deposited in ligament or cartilage, double decomposition ensues, sulphate of soda and urate of lithia are formed, and the deposits are rendered soluable."

In administering the carbonate, or any other salt of lithia, they should be given freely diluted, either in the form of powder dissolved in a large bulk of water, or in the form of gaseous water, "so as to form lithia water, corresponding, except in strength, with the soda or potash-water in general use. When a large amount of alkali is desirable, I have usually prescribed the carbonate of lithia with some salt of potash, as the carbonate or citrate, and the combination may advantageously be administered in the aerated

state." Carbonate of lithia can also be given with phosphate of ammonia in the same form; but it must be recollected that the phosphate, as well as the carbonate of this base are very sparingly soluble in water. The great bar to the use of salts of lithia in medicine has hitherto been their expense, but in the small doses in which they are required, this need not be a serious objection, moreover, they can now be obtained at a much more moderate charge. It is probable, that should the benefit derived from their employment in gouty cases, gravel, and calculus—in which it is of importance to keep aric acid and uretes in solution—be equal to what may be reasonably anticipated, the supply of the drug might be greatly increased, and its cost proportionately diminished.—*Chemist and Druggist, Aug.* 15, 1860.

EFFICACY OF ETHER IN CASES OF DEAFNESS.

Dr. Lafargue has communicated to the "Bulletin de Thérapeutique" the following important case of a young deaf and dumb boy cured by ether, according to Mdlle. Cleret's method:—"Young Wailloz, of Libourne, is eight years of age; he is free from any scrofulous affection, which by many is considered the chief cause of surdo-mutism; and, on the contrary, has a very strong constitution, and as lively and active as his age requires. He was born deaf and dumb, and this affection cannot be attributed to any hereditary cause, since all the members of his family enjoy the most perfect health. His father had, a short time ago, taken him to Bordeaux, to be examined by the members of the Academy, who all pronounced him to be incurable. His treatment by ether began on the 27th of April last, when eight drops of rectified sulphuric ether were instilled into each ear. At first, the ether caused pain in the right ear, to avoid which the dose for that ear was reduced to four drops; but in the sequel this diminution was discontinued as unnecessary. The relief was almost instantaneous; on the second or third day, young Wailloz began to articulate the words 'papa, mama, tante, boire,' but, singularly enough, always in a whisper. Dr. Lafargue believes this to be caused by want of habit, and likely to wear off by the gradual development of his vocal powers. The patient hears the peal of an alarum, the striking of a clock, and the sound of a bird-call imitating the note of a quail. These unusual noises amuse him very much. He can hear better with the right than with the left ear; and as it was the former which was painful when ether was first applied, Dr. Lafargue suspects that the curative activity of the remedy is in proportion to the physiological effect it produces; a proposition only to be satisfactorily answered by future experiment. The patient is already sufficiently recovered to receive *viva voce* instruction, but the treatment is still continued."—*Chemist and Druggist.*

COLOURED LIQUIDS FOR THERMOMETERS, SHOW BOTTLES, &c.

The gradual decoloration of coloured alcohol in thermometers, by the influence of light and the precipitation consequent on the chemical change produced, is doubtless of importance to the druggist, anxious for the showy appearance of his windows. The following remarks will therefore be read with interest and benefit:—Solutions of various salts or metals in hydrochloric acid are, some of them, of very great intensity and beauty. Thus, a *yellow* liquid is obtained by dissolving 3 parts of perchloride of iron, or hydrated peroxide, in 100 of hydrochloric acid; the colour may be heightened by adding some hydrated oxide. Various colours are produced with the solution of protocarbonate of cobalt in hydrochloric acid. The salt of cobalt used must be chemically pure, especially free from iron or nickel, which would prevent or neutralise the formation of the blue and red shade. The *green* cobalt colour is obtained by dissolving 3 parts of the protocarbonate in 100 parts of the acid, and filtering. By the addition of a few drops of the above yellow liquid the colour is deepened, and loses the bluish tinge. A

blue colour is prepared by dissolving 6 parts of the protocarbonate of cobalt in 100 parts of the acid, and boiling for about two minutes to remove the carbonic acid or chlorine held in solution. Neither of the above two colours should be diluted with water, as this would change them to red. The *violet* colour is obtained by dissolving 34 parts of the protocarbonate of cobalt in 100 parts of the acid, mixed with 5 of water, and boiling up before filtering. A very fine *red* liquid is obtained by dissolving 45 parts of the protocarbonate of cobalt to 100 parts of acid, diluting with 45 parts of water, and boiling. All the cobalt colours change by heating the solutions, which gives them more or less a blue tinge; but, on cooling, this gives way to the colour intended. The solution of carbonate of chromium in hydrochloric acid (chloride of chromium), evaporated until it becomes hard on cooling, and dissolved in alcohol (90 p. c.) in the proportion of 25 parts of the salt and 100 of the spirit (to which are added 5 parts of acid), furnishes a fine *deep green*. Four parts of crystallised acetate of copper dissolved in a mixture of 50 parts of aqua ammoniæ and 50 of 90 p. c. alcohol, give a durable *blue*.—*Ib.*

CHLOROFORM IN SCABIES.

Professor Bock, in *Schmidt's Jahrsbuch* for August, states that the external application of chloroform is useful in some cases of itch. This substance appears to kill the insect, and moreover, by producing anæsthesia, it relieves the irritability of the skin. M. Bock has never observed any inconvenience to arise from the use of chloroform; and the sensation of burning, which it produces for a short time, is quite trifling in comparison with the intolerable itching caused by the disease.—*Ib.*

CHLORIDE OF ZINC MOULDED INTO STICKS FOR THE PURPOSE OF CAUTERIZATION.

Soften gutta-percha in boiling alcohol, and incorporate it with finely-pulverized chloride of lime in a warm porcelain mortar, taking equal parts of each. Then roll rapidly on a porphyry slab, to the diameter of a quill, and divide in fragments, each of which shall be pointed at one end. Keep these in a wide-mouthed bottle in powdered lime. These sticks remain perfectly hard, are easily handled, cauterize with great regularity, and act as a sponge through which the chloride will slowly exude, becoming liquid by the action of the air and the skin.—*Lancet.*

LOTION FOR MENTAGRA.

M. Richard has recently called attention to the good effects which he has seen from the application, in patients affected with mentagra, of a lotion composed of sulphate of zinc and sulphate of copper in distilled water. After the employment of ordinary remedies, and when the affected part is cleansed from the crusts which cover it, the lotion is applied frequently; and under this treatment it has been found that the disease disappears in a comparatively short period.

SUBNITRATE OF BISMUTH IN THE TREATMENT OF BURNS AND SCALDS.

By Dr. Richardson, of New Orleans.

Dr. Richardson was induced to use bismuth in the treatment of burns from its well known effect in calming irritation and even actual inflammation of mucous membranes. The following is the method of employing it:—rub the bismuth in a mortar with a sufficient amount of glycerine to form a paste of thick paint, which should be applied to

the affected surface by means of a camel's hair pencil, or a mop made of soft linen; the parts should be first thoroughly dried and each blister opened with a needle; after a thick coat has been applied the parts should be protected from the bed clothes by a layer of clean carded cotton. In burns of the first degree one application will often suffice, but in those of the second it may be necessary to repeat it, in part at least, from day to day, in consequence of its disturbance and the wetting of the cotton by the discharges. This method of treating burns has proved superior to every other in the Charity Hospital.—*American Medical Times*, July, 1860.

ON LIQUOR FERRI IODIDI AND IODIDE OF SUGAR.

The numberless formulas proposed every day by pharmaceutists and manufacturing chemists are a sufficient proof of the difficulty of preserving the iodide of iron free of decomposition, and also of the non-success of the previous recipes. Every chemist is aware that in chemical combination a change of temperature will sometimes change the nature of a product. Such may be the case in the preparation of this ferruginous salt. From all my experiments, I have come to the conclusion:—1st. That glycerine has very little, if any, superiority over sugar for the preservation of the ferruginous liquor. 2nd. That the liquor ferri iodidi freshly made, or already undergoing decomposition, becomes entirely unchangeable by a long exposure to heat or to the rays of the sun, even if the bottle afterwards be but partly filled and kept in a dark place. The same result is also obtained by the addition of a few drops of tincture of iodine to the ordinary liquor, and exposure to the heat and sun as above. In proof of this I have two small bottles, which have served me in my experiments, the one labelled made October 3, 1857, the other, June 3, 1858; both were exposed to the rays of the sun till January 4, 1859, when they were taken into the cellar and left there ever since. 3rd. That iodine forms with sugar a chemical combination, as it is explained below. 4th. That the liquor of iodide of iron is improved, and rendered more perfect by exposure to the rays of the sun. I will here mention a formula which I have used for some time with satisfaction; it consists in introducing 4 oz. crushed sugar into a Florence flask along with the water, iodine, and iron; when the salt of iron is formed, which is known, as usual, by the light green colour of the liquor, it is filtered over the remaining 8 oz. of sugar, boiled and strained, as any other syrup. This process of adding a part of the sugar to the first operation has the advantage of furnishing a sweetened green solution, which can be filtered with as much ease as simple water, without fear of any decomposition. However good the above formula may be, I have abandoned it for the following:—

Liquor Ferri Iodidi.

℞ Iodini sublimat. ℥ ij.
Pulv. ferri puri, ʒ v.
Sacchari albi, ℥ xij.
Aquæ destillatæ q. s. vel ℥ xiv.
Ut fiat solutio secundum artem.

The iodine is weighed separately in a wide mouth bottle, perfectly dry; all of the iron and about 6 oz. of water, more or less, makes no difference, is introduced into an ordinary bottle, and the iodine added in small quantities (one to two drachms), adding a new portion only when the previous one is combined to the iron. As soon as a portion of iodine is thrown into the iron water, the operator is to shake the bottle continuously until the metalloid is combined with the metal; and to avoid the elevation of temperature during the chemical combination the bottle must be shaken under a stream of cold water, or in a tub of ice water. When all the iodine is combined with the iron, which requires only half an hour, the light green solution is filtered, and the filter washed with a sufficient quantity of water to make the liquid measure 12 oz. fluid. To

this the sugar is added, the whole raised to the boiling point, and strained. When cold, 20 oz. fluid must be completed with some water; then the liquor is put in a lbj. or 4 oz. bottle, according to the sale. The filtration requires no more than ordinary care, no decomposition takes place, and none of the salt is left on the filter, on which remains only a small portion of the excess of the metallic iron.—*F. Fougera, Pharmaceutist, in Chemical News.*

MEDICAL JURISPRUDENCE.

CASE OF DEATH IN A NEONATUS BY A FALL INTO A SINK.

Dr. Born, of Gorlitz, reports a case in the *Vierteljahr. für gerichtlich. Med.*, XVI p. 36, of a woman, who believing her labor pains to be common belly-ache, and trying to satisfy a constant desire at stool, lost her child in the privy sink. Within five minutes it was extracted with a hook. It was completely covered with mire, and quite cold. An intelligent midwife, who was soon after on the spot, although convinced that the child was dead, made several attempts at re-animation by rubbing, turning and even insufflation. But life did not return. Examination proved the child fully and well developed; the stomach was found entirely filled with a greenish-yellow thin, pasty liquid containing small air bubbles, fœcal matter, and a maggot one quarter of an inch long. The trachea, on being cut, also disclosed a little of miry liquid. The lungs were perfectly crepitant and healthy. The child had swallowed mire.—*Med. and Surgical Reporter, July*, 1850.

LIFE WITHOUT RESPIRATION.

Drs. Lafargue and Degranges found in a fœtal corpse examined for medico-legal purposes all the ramifications of the bronchia filled with a muddy liquid mixed with small sandy and vegetable remains. These masses were exactly similar to those in the creek in which the corpse had been found. Not a particle of air had ever entered the lungs. But these foreign matters, could not have penetrated the lungs so deeply without a strong inspiratory act; and the authors gave their positive opinion that the child had lived in spite of the negative result of the hydrostatic test.—*Gazette des Hospitaux, No.* 50, '59.

DEATH FROM CEREBRAL EFFUSION.

Amongst the nicest questions which the medical witness can be called upon to decide are the issues of death following injury, when, upon the performance of a post-mortem examination, a cause of death is discovered, which may be attributed to the injury, but which might also have had a spontaneous origin. We learn from a local paper that a charge of manslaughter against John Norris, at Uttoxeter, for causing the death of his wife by violently beating her about the head has "caused the greatest excitement which any case of the kind ever did;" and the evidence of the medical witness in this case is apostrophized with notes of admiration and expressions of surprise. Mr. Elkington, the surgeon who performed the autopsy, found the principal lesions in the brain. He says:—

"On examining the brain, I found a large clot of blood upon the right side of the organ; I measured it, and found it to be three ounces. The brain was remarkably soft; the right ventricle was almost filled with serous fluid. There was no congestion

particularly about the brain; the dura mater was not congested. As I have said before, I found no external mark on the head; but on cutting through the scalp on the left side I found a mark. It sometimes happens that the extravasation is on one side and the laceration on the other. The right eye-lid was paralysed."

Under such circumstances, finding the right ventricle filled with serum, the whole substance of the brain being softer than usual, and "without any trace externally or internally of any violence sufficient to have caused death," Mr. Elkington could not conscientiously aver that death arose from any other cause than apoplectic extravasation of blood. This opinion appears to have been received on all sides with great surprise. This astonishment would be greatly modified were the critics aware of the difficulty of separating the influence of coincident causes in producing a common effect. In any case, Mr. Elkington has done well to deliver his grave, conscientious judgment, rather than allow himself to be swayed by the popular belief, or moved by common clamour.—*Lancet.*

SUBSTANCES INTRODUCED WITH THE AIR INTO THE LUNGS.

M. G. Pouchet, in a communication made to the Academie des Sciences, (see Gaz. Hebd.,) states that he has found in the respiratory organs of man the same atmospheric corpuscles which he has found in animals. In two persons who had died in one of the Parisian hospitals—a man and a woman—whose lungs he injected. Pouchet found a notable quantity of wheat dust, particles of silica and fragments of glass, small particles of wood of a fine red tint, debris of clothiug, and finally a larva of a microscopical spider, yet living.

M. Pouchet has met with debris of the same nature in the expectoration—*Medical and Surgical Reporter.* July, 21, 1860.

POISONING BY STRYCHNINE.

The following case, communicated by Dr. S. S. Harris, the Resident Physician, is of interest:—Thomas W——, æt. twenty-eight, a native of New York, had been on a debauch for several days, and while under the influence of liquor attempted suicide by taking ten cents worth of Strychnia. About half an hour after, convulsions came on, beginning with slight twitchings in the muscles of the lower extremities. When brought to the hospital, about an hour after swallowing the poison, he was suffering from violent convulsions every few minutes; pulse ninety-six, rather small, and very irregular, face of a dusky hue; body warm, but hands and feet rather cool. An emetic of sulphate of zinc and pulv. ipecac was immediately administered, which operated freely. Sinapisms were then applied to the whole length of the spine, and ʒ ss tr. assafœtidæ administered every half hour by enemata. This treatment was continued for two hours, when the convulsions entirely ceased, but the patient was much prostrated, with some tendency to collapse. Stimulants were then cautiously given, and he soon rallied. For a day or two the patient had slight gastritis, but on the third day after admission he was *discharged cured.* Some pains were taken to ascertain the exact amount of poison he swallowed, and without doubt it must have been *six or eight grains.* A similar case occurred in the hospital a few months before, when the patient took *seven grains,* and yet recovered. Judging from these two cases, the strychnia must have been either very much adulterated, or else it sometimes takes larger doses to kill than is generally supposed. This is a fact which it would be well to bear in mind in medico-legal investigations.—*Am. Med. Times, Aug.* 11.

SURGERY.

ERECTILE TUMORS.

Dr. Daniel Brainard, published in the Chicago Medical Journal for June, an extended essay on the pathology and treatment of erectile tumors. He sums up the relative merits of the different methods of treatment as follows:

I. Excision should be performed in every case where the size and situation of the tumor will admit of its being performed. This is almost as much a rule in these cases as in cancer. The exceptions are the slight cases which may be trusted without treatment until they increase in size.

II. When excision would cause too great a loss of substance, danger from hemorrhage, or when, from any cause, excision is objected to, strangulation is to be preferred next in order; and whether effected with ligature alone, or with needles or other means, it should always, if possible, embrace the whole diseased structure.

III. In limited superficial naevi and erectile tumors, particularly if placed over bony surfaces, compression will often diminish, if not cure, the disease.

IV. In deep-seated tumors, particularly aneurisms by anastomosis, cauterization with the hot needles is an extremely efficient remedy, either by itself or in connection with other means.

V. Setons or metallic needles may be used in the venous forms of the disease. They are more effectual when placed, to some extent, in sonnd tissue.

VI. Ligature of the principal artery leading to the part, is adapted to the variciy called aneurism by anastomosis, the accidental thrilling variety, and particularly to that variety situated in the orbit of the eye. I believe however, that it is more dangerous and less necessary than is generally supposed.

VII. Vesicants, escharotics and caustics are adapted to complete a cure, when a small portion of tissue remains after excision, strangulation or seton. They are uncertain and little to be relied on.

VIII. A combination of several of these methods of tr ..t will often be found advisible.—*Medical and Surgical Reporter, August* 25.

A CASE OF ANIMAL ENGRAFTMENT.

This case, communicated to the *Journal de Médecine de Bordeaux*, for July 1860, by M. Azam, is of great interest. He reports, that on the 5th of May, 1860, Jean Desplats, of Talence, near Bordeaux, while dressing a piece of wood with a very sharp hatchet, from a badly directed blow cut off about three *centimètres* of the index finger of the left hand in an oblique direction, cutting the nail in two, and shaving the phalangette laterally, including the almost entire ball of the finger. The pain and loss of blood caused complete syncope. A neighbor who was present, directed his first care to the assistance of the patient; after which, the happy thought occurred to him to replace the separated portion, which he did, about ten minutes after the accident, covering the part with copaiva. Three hours afterward, the patient came to my ward for advice. The resident adjunct, M. Vergely, who was in attendance, found that the part had been completely separated. It was bandaged.

Three days later, Desplats attended the ward, at the time of my visit, and again, three or four days afterward. A stylet passed through the bandages to the ball of the finger, proved that the part was perfectly sensible. The engrafting was certain and perfect; the color, however, being black, caused some fears of mortification.

On the fourteenth day the bandages were all removed. The black portion mentioned was found to be nothing more than a clot effused beneath the cuticle; the latter only was mortified.

The line of the cicatrix indicated in the most evident manner, that the fragment had

been completely separated, affording an indelible proof that the attempt (which in parallel cases ought to be imitated) was altogether successful.—B. D.

A paper, by Mr. J. W. HULKE, was read at the Royal Medical and Chirurgical Society, on

GLAUCOMA AND ITS SURGICAL TREATMENT.

The author refers to a paper "On the Morbid Anatomy and Pathology of Glaucoma," communicated by him to the Society in December, 1857. Since then, the treatment of glaucoma by "iridectomy" has been extensively practised in the Royal London Ophthalmic Hospital and in private, and the results have been so very successful that the author is desirous of bringing the operation under the notice of the Society. In order to prevent any misunderstanding respecting the nature of the cases in which he advocates the performance of iridectomy, Mr. Hulke gives an outline of the symptoms, the ophthalmoscopic signs, and the morbid anatomy of glaucoma. There are two forms of this disease—an acute, and a chronic; but many cases have an intermediate character. In 75 per cent. or more of all cases, the active stage is preceded by a preliminary period—"prodroma." In acute cases the transition is abrupt; in chronic cases it takes place by insensible gradations. *Premonitory symptoms.*—Rapidly increasing presbyopia; the appearance of a coloured halo round the flame of a candle; the spontaneous appearance of flashes and other spectra. Intercurrent obscuration of vision, attended with vague and orbital and frontal pains, slight hardness of the eyeball, and contraction of the field of vision. The pupil is large and sluggish; the size of the anterior chamber is much diminished. The duration and intensity of these symptoms are very variable, but they are rarely absent. *Acute Glaucoma.*—The active stage sets in as sudden and violent outbreak, often at night. Violent racking pain in the eyeball, often attended with sickness, and followed by rapid extinction of sight. The pupil is widely dilated and motionless; and the lens has sometimes the peculiar greenish tint which was formerly considered so characteristic. The ciliary vessels are swollen; the conjunctiva is red and often chemosed; the globe is very hard; the cornea is dull, and its sensibility is lowered. Remissions are followed by fresh paroxysms, and complete, irremediable blindness always ensues. *Chronic glaucoma.*—The premonitory period slowly glides into the active. The obscurations, which were at first evanescent and separated by long intervals, become more frequent, and last longer. The contraction of the visual field progresses. The tension of the globe increases. The iris becomes dull; the aqueous humour turbid; the cornea dimmed and flattened. Mr. Hulke lays stress upon the flattening of the cornea, which is easily demonstrated, because it has been recently stated that the cornea becomes conical in glaucoma. *Ophthalmoscopic Signs.*—Excavation of the optic nerve entrance, and pulsation of the retinal vessels. To these capillary apoplexy of the retina is often added; and sometimes there are small blood-clots in the vitreous humour, which is unnaturally firm. It is only late in the disease, when all the component structures are undergoing atrophy, that the vitreous humour becomes fluid. *The Nature and Causes of the Glaucomatous Process.*—All the leading features of the glaucoma are due to excessive tension of the eyeball from a superabundance of fluid within it, which distends the vitreous humour. The fluid—serum—is derived mainly from the choroid. Many circumstances show that the retina is only passively concerned. Glaucoma might be considered a serious choroiditis. Mr. Hancock has advanced the theory that spasm of the ciliary muscle forms an essential part of glaucoma. The author has, however, found complete atrophy of this muscle in dissections of glaucomatous eyes; hence the inference that this muscle is concerned in maintaining the glaucomatous condition. The author has been unable to trace any connection between glaucoma and gout or rheumatism. Some other diseases and injuries of the eyeball occasionally assume a glaucomatous type. This is especially the the case with wounds of ciliary region and sclerotico-choroidal staphyloma. *Treatment*•

—Generally the age and broken health of the subjects of glaucoma forbid antiphlogistics; venesection is inadmissible; leeches and counter-irritants are useful as adjuncts, but cannot alone cope with the disease. The excessive tension of the globe is suggestive of the evacuation of some of the superabundant fluid by tapping. The old Surgeons, Antonius, Nerck, Jobus á Meckren, and others, were familiar with this operation, but they practised it chiefly in hypopion, onyx, and hydrophthalmos. Wardrop (*Med.-Chir. Trans.*, 1813) tried it extensively. With a view to lessen fulness and congestion, he tapped the anterior chamber in superficial and deep-seated inflammations of the eye. The operation was at first warmly taken up by other Surgeons, but soon fell into disuse. In our own day it has been strongly advocated by Desmarres, but it has found little favour with English Surgeons, though most have occasionally performed it. In glaucoma the relief that paracentesis corneæ affords is too transient to render it of much value. Paracentesis scleroticæ has been practised by Desmarres and Hancock in glaucoma, though with different objects. Mr. Hulke reverts to this, after fully describing the operation of iridectomy as proposed by Dr. A. von Graefe. *Iridectomy* consists in excising a segment of the iris, in its whole breadth, from the pupillary margin outwards to its insertion. This is effected through an opening of corresponding size at the extreme edge of the anterior chamber. Iridectomy may be practised at any part of the iris. Graefe usually makes it outwards; but adds that, when desirable for the sake of appearance, it may be made upwards. This latter position has been adopted by Mr. Bowman and is that which Mr. Hulke has generally chosen. By removing the iris in this manner, the pupil is at once enlarged up to the corneal incision, which forms, as it were, the base of a coloboma iridis, and the edge of the lens, with the suspensory ligament, stretching in front of the vitreous humour and the ciliary processes, are exposed to view. The little blood which oozes into the anterior chamber from the cut edges or surfaces of the iris, should be at once pressed out or removed with a scoop. The after-treatment is very simple. A light compress may be applied for a short time as a precaution against hæmorrhage. This may be replaced after an hour or two by a piece of wet rag. The room should be shaded. Usually nothing else is necessary. At first the aqueous humour trickles away; but the corneal wound soon heals, and the anterior chamber fills again. The hardness of the eyeball is at once lessened, and a natural tension is gradually attained; the pain abates, and soon altogether disappears. As regards vision, the ultimate results are intimately dependent on the period at which the iridectomy is performed, being more perfect where it has been early undertaken than where it has been postponed. In the premonitory period, where the symptoms are well marked, the propriety of operating cannot be doubted. In acute glaucoma, where the operation is done during the first inflammatory attack, or soon afterwards, vision is very completely restored. In chronic glaucoma, the results are less uniform and less decided. This is in consequence of the insidious nature of the disease—structural changes in the retina creeping on *pari passu* with the gradually increasing tension. *Alleged Objections to Iridectomy.*—1. Its reported uniform failure in the hands of some Surgeons. This is in great probability to be generally attributed to its having been practised in cases which were not true instances of this disease. Many failures have proceeded from its having been done at far too late a period. 2. The great difficulty of the operation. This has been much magnified. It does not require more skill than most surgeons possess, and when chloroform is used it becomes really a simple matter; but even were it difficult, which it is not, in the absence of other known means of cure, we should be no more justified in rejecting it on this account, than we should be in refusing a patient the benefit of herniotomy where the taxis and other measures had failed. 3. The disfigurement produced by the coloboma iridis is so slight that it cannot constitute a real objection. 4. Its supposed injurious action on accommodation. Further experience has corrected some misimpression which at first prevailed respecting its influence on the adjustment of the eye. The previously existing presbyopia is not increased by removal of a portion of the iris; indeed, the refracting power of the globe sometimes actually

increases after iridectomy—probably, as Graéfe has shown, in consequence of the flattened cornea resuming its natural curvature. To avoid these alleged disadvantages, paracentesis sclerotic has been advocated by Middlemore, Desmarres, and Hancock, as a substitute for iridectomy. Middlemore proposed to evacuate the turbid, difficult, vitreous humour with a grooved needle, and to replace it with a syringeful of clear water. But, except in very old cases, the vitreous humour is much too firm to flow out along a grooved needle; and probably few English Surgeons would adopt Desmarres' suggestion of introducing a probe and breaking it up. Mr. Hancock, considering a spasm of the ciliary muscle to be an essential part of glaucoma, divides this muscle by striking a knife through the ciliary region backwards and inwards towards the axis of the globe. But Mr. Hulke has demonstrated, by microscopical examination, advanced atrophy of this muscle in many glaucomatous eyeballs; whence it follows that the ciliary muscle is not actively concerned in maintaining the glaucomatous process. In all probability, the success of Mr. Hancock's operation is solely due to the draining away of some of the superabundant fluid. According to this view, it is simply a peculiar mode of paracentesis, and cannot rank as a substitute for iridectomy until it has been thoroughly established that it permanently relieves excessive intra-ocular tension, which, in common with most surgeons, Mr. Hulke has found that tapping the vitreous humour fails to do.

ON THE COMMUNICABILITY OF SECONDARY SYPHILIS.

By Mr. Weeden Cooke.

He said that it was singular how many questions respecting syphilis remained unsettled, considering the numbers who suffered from the disease, and the length of time it had been known and studied. Even the primary symptoms still gave rise to controversy. Some declared the hard chancre only infectious; others, that the soft chancre does not infect the constitution, but may produce a hard chancre which does infect; whilst others denominated the soft chancre a cancroid ulcer, which was not syphilitic at all; a fourth party, however, considered both these chancres syphilitic, and therefore capable of producing constitutional symptoms. As a consequence of these differences of opinion, there was much diversity of treatment, which was a practical evil. Respecting the communicability of secondary symptoms, there was yet much to be cleared up. It was a recognised fact that secondary syphilis was conveyed through the father to the fœtus in utero, and from the fœtus to the mother. The author had verified this fact in numerous instances, and related the case of a lady who had two syphlitic children without herself being affected, but on the birth of a third she was infected, and exhibited all the signs of a severe constitutional attack. Although this mode of communication had been long recognised, it had until recently been denied that secondary symptoms ever were communicated from one person to another. It is well known, however, that M. Ricord, the staunch supporter of non-communicability, had been obliged to modify his opinion, owing to the production of incontestable evidence that the discharge from secondary ulcers did produce eruptions and ulcers of a similar character; whilst the French authorities, convinced of the possibility of this infection, not long since prosecuted two medical men for inoculating two children suffering from favus with the matter of secondary syphilitic disease. Mr. Henry Lee, also, has recently brought before the profession instances which favour the conclusion that the constitutional disease can be conveyed from one person to another.

Mr. Cooke then related the particulars of a boy who had been recently under his care at the Royal Free Hospital, exhibiting indubitable evidence of this occurrence. A fine boy seven years of age, was covered with an eruption, which could not be mistaken for anything but psoriasis syphilitica. He had also enlargement of the optical glands, the throat was much injected, and he had recently, from being a very healthy boy, become

cachectic. He was ordered two grains of grey powder twice a day, and got quite well in less than three weeks. His mother, who brought him, was herself affected with the same eruption. She had also ulcers on the inside of her lips and cheeks, and had suffered much from rheumatism. Her husband had given her primary syphilis one year before. After being "cured" of this, secondary symptoms appeared, and she was treated and got well. She remained well until about six weeks ago, and has since that been affected as stated. The boy slept with her, and she was of course in the habit of kissing him. A month after the reappearance of the disease in the mother, the son became affected. This case Mr. Cooke considered conclusive of the possibility of communicating secondary syphilis. It was no doubt a very rare occurrence, because the discharge from a secondary ulcer would very rarely be applied to a raw surface capable of absorbing it; but, when so applied, it evidently had the power of infecting a previously healthy person, and it was most desirable that this fact should be known and recognized. —*Lancet.*

PROTRUSION OF BONE BY GROWTH FROM THE END OF A STUMP.

When limbs have been submitted to amputation in childhood, it not unfrequently happens that, as the individual grows, so does the bone elongate itself in a proportionate manner, and then protrudes through the soft parts, after a time forming a conical stump. Instances of this kind we have already brought under the notice of our readers; and that the bone does grow is believed by many surgeons of high authority, amongst whom are Mr. Stanley, Mr. Curling, and others. An undoubted example of it was recently admitted into Guy's Hospital under Mr. Hilton's care. The patient was a healthy-looking girl, of about the age of eighteen years, whose right arm had been amputated in childhood. The stump healed kindly, and remained healthy for some years when it gradually became conical, and from the point protruded the end of the humerus. Its appearance was like an exaggerated nipple somewhat drawn out. There was no retraction of muscular substance here, but clearly an outgrowth of bone. The soft parts were tender in spots, as if from the pressure on or stretching of some of the nerves; in fact, they could be marked by pins. The rest of the stump was healthy. Chloroform was given on the 24th of July, an incision was made on either side, freely laying open the stump, and three inches of the bone sawn off; the parts were brought together, and the girl is now doing very well.—*Lancet.*

SENSATION OF CRACKLING WITHIN THE JOINTS.

A female, aged thirty-six years, but looking much older, a housemaid, of spare frame and short stature, was admitted into St. Bartholomew's Hospital on the 6th of February last, under Dr. Farre's care, with general pains about her limbs and joints. She has been a sufferer from rheumatoid arthritis; and from her family history it appears that her father and uncle were subject to the same disease, or to gout, but which, she says, was rheumatic gout. Besides the general pain and distress present on her admission, she had a sensation of crackling within all the affected joints, especially well marked at the under part of the right knee, in the right ankle, in the left groin, and in front of the hip-joint; and at times she seemed as if she had not the power to move her limbs. This crackling of the joints commenced nine weeks before she entered the hospital, although she has suffered from her other affection for upwards of five years, with lameness of one of her legs from the same cause. She was examined by Mr. Lloyd to see if there were loose cartilages, but none could be found. Dr. Farre believed that this singular condition must be owing to an altered secretion of the lining membrane. By the 13th of February she was much relieved from pain on the outer side of the hip by the local application of belladonna to the sacrum, and, in a few days afterwards, all this crackling

wholly disappeared, and she began to improve in every way under treatment, although she still remained a little sore and lame.

It may be observed that the disease itself under which this patient was suffering is common enough; but the peculiar sensation experienced of crackling within several of the joints is a striking feature, and ought not to be a rare circumstance when the great number of pathological states of the synovial membrane are taken into consideration. That Dr. Farre's opinion is the correct one would seem to be proved by the result of the treatment.

Some weeks later, a second example of this peculiarity occurred at University College Hospital, under Mr. Erichsen's care. The patient was a middle aged man, with partial anchylosis of the elbow, the result of inflammation. He had been the subject of rheumatism eight years ago, and for the last two years has been unable to extend the left arm, although he can slightly flex it. There was clearly some effusion into the joint, and a very distinct crackling sensation, which Mr. Erichsen stated to be the result of it. In effusion into the sheaths of tendons, and in bursæ near joints, this crackling feeling is observed, and gives the idea, he remarked, of bands forming in different directions. It is noticed also in bursæ, when there are small bodies mixed with the fluid. Without giving the patient chloroform, the arm was flexed and extended with but little force and, subsequently, not only was the position of the arm improved, but much useful motion was gained, with disappearance of the crackling.—*Lancet.*

STATISTICS OF LIGATION OF THE PRIMITIVE ILIAC ARTERY.

By Dr. Stephen Smith of New York.

This paper comprises the reports in abstract of 32 recorded cases of this operation, as follows :—1. For the arrest of hemorrhage, 11 cases. 2. For the cure of aneurisms 16 cases. 3. For the cure of pulsating tumors, which proved to be malignant, 4 cases. 4. For the prevention of hemorrhage in the removal of a tumor, 1 case. Of these 32 cases 25 died; being a mortality of 78.8 per cent. In 24 cases aneurisms directly or indirectly led to the operation, and involved the following arteries; right external iliac, 11; left external iliac, 7; femoral, 1; gluteal, 2; one was varicose; not given, 2. In 17 cases the right primitive iliac artery, and in 13 cases the left was tied; of the former 3, and of the latter 2, recovered. In 9 cases the peritoneum was wounded, of which one recovered. It appears from this paper that the operation of ligating the common iliac is much more fatal than authors have represented.—*Am. Med. Times.*

RUPTURE OF STOMACH.

[Reported by R. F. Weir, M.D., Resident Surgeon.]

A boy, aged fourteen, while flying a kite on the roof of a five-story building, having just before partaken of a heavy dinner, slipped and fell to the ground, a distance of about fifty feet, striking, in his descent, an intervening clothes-line which broke under him. On admission into the Hospital, shortly afterwards, he was much prostrated, there was also considerable jactitation present, and great pain was experienced on pressure over the entire abdomen, which, presented, across its lower portion, a transverse depression, but no abrasion or contusion. The patient did not rally, and died in about eleven hours after he first came under notice. The autopsy, twelve hours after death, revealed the existence of a rupture of the walls of the stomach, one and a half inches in length, with irregular lacerated edges and slight eversion of the mucous membrane, situated on its anterior surface a short distance from the pylorus, and running parallel to the long axis of the organ. The organ was, of course, collapsed. The intestines were moderately distended with gas, their peritoneal coats were much injected, and

were covered with a thin layer of recent lymph. About two and a half quarts of turbid serum, plentifully mingled with shreds of corned beef and cabbage, in a slightly digested state, were found in the cavity of the peritoneum. No lesion of any other viscera nor of any of the adjacent bony parts was discovered.—*American Medical Times*, July, 21.

PASSAGE OF A RAKE-HANDLE THROUGH THE SCROUM AND ABDOMINAL PARIETES TO THE RIGHT HYPOCHONDRIUM. RECOVERY.

By H. B., Epping, N. H.

On the 7th of May, 1860, J. B. aged 59 years laborer, ascended a hay-mow for the purpose of removing some hay. On his return to the floor he attempted to slide down, and in so doing he slid upon a rake-handle, which was accidently left leaning against the mow. The handle entered at the lower inferior portion of the scrotum, a little to the left of the mesial line, passing up over the pubis, then running somewhat diagnally across the abdomen made its exit in the right hypochondriac region between the tenth and eleventh ribs. It required considerable force to extract the instrument from its unnatural, and, to the patient, unpleasant position. The left testicle was completly turned out of its place, and almost denuded of its covering. Hæmorrhage was slight. A probe was with some difficulty passed up over the pubis. The testicle was carefully replaced, the wound cleansed of all clots and closed by four sutures. The simple water dressing was used, and a lotion composed of tincture of arnica and water was constantly applied along the track of the wound. Rest and the horizontal position were enjoined. On the 8th there was extensive ecchymosis showing distinctly the course the instrument had taken. Bowels lympanitic, lost by appropriate treatment the tympanitis yielded and the wound began to unite by granulations. About a week subsequent, a messenger was sent to my office desiring my immediate attendance. Upon my arrival at the house, I learned that he had chills on that day and the day previous. At the time of the visit there was considerable fever. By examination, I discovered a tumour situated on the the track of the wound, about midway from either extremity. It was well defined and fluctuation was distinctly perceptible. I at once opened it with a bistonry. It gave vent to a large quantity of pus, which continued to discharge for a few days. The incision then healed in the ordinary manner. Recovery was rapid and complete.

MIDWIFERY.

DELIVERY OF A CHILD WEIGHING EIGHTEEN POUNDS.

By A. Meadows, M.D.,

Accoucheur to King's College Hospital.

I am induced to record this case because, so far as I know, the child was the largest ever born, and certainly the largest ever born alive. I was called on the 13th inst., at ten A. M., to Mrs. K., aged 35, who was in labour with her second child. She stated quite positively that she was at least a fortnight over time; and she fully expected to have twins, as she was such an enormous size, and had been greatly inconvenienced thereby for the last month. Fœtal movements had sometimes been so strong as to be quite painful. The present labour began at six A. M., with pain which regularly increased up to the time of my visit. The membranes were still entire. On examination I found the parts soft; the os uteri dilated to about the size of a shilling, but I could not make out the presenting part, the child being still very high. By the abdo-

men I believed I detected the head at the fundus, with the back of the child looking forwards. Auscultation gave distinct evidence of fœtal life, for, notwithstanding Dr. Adams's disbelief in the use of the stethoscope in pregnancy, I am still disposed to have some faith in my own ears. I left the patient, desiring to be sent for should any urgent symptoms arise. At ten P. M., I made another examination, the labour having so far gone on steadily and well. The membranes were still entire. I now made out a breech presentation. The os was well dilated and soft, the patient in good condition and the pains regular and strong. The breech descended but very slowly, and seemed, notwithstanding powerful uterine action, much jammed in the pelvis. However, at four A. M., on the 14th, it had so far descended as to enable me to get a purchase on it with the fingers hooked round the groin, and with strong efforts I succeeded, at half-past five, in bringing down the breech and lower extremities. The cord was pulsating. Great difficulty was now experienced in extracting the head, but after some little force, I had the satisfaction of bringing this down, and in a few minutes the child recovered and breathed comfortably. All the lower part of the body and thighs were of a deep purple colour, as if violently bruised, but the child was otherwise well. The placenta was expelled in half an hour; and the mother subsequently did well. I called five hours afterwards, and to my surprise found that the child had died suddenly about an hour before, while lying at its mother's side. No reason could be given for this, as a short time before it appeared quite well. No post-mortem examination was permitted. On weighing the child it was found of the enormous weight of 18 lbs. 3 oz. Its extreme length was 32 inches; the circumference of the head, 17½ inches. These are post-mortem measurements. It was most perfectly formed and beautifully developed. The placenta was of proportionate size, and weighed 3 lbs.—*Med. Times.*

CASE OF TUMOUR IN THE ABDOMEN WITH A HISTORY OF SUPPOSED PREGNANCY.

(Under the care of Dr. JAMES JONES.)

The following case is of great interest in connection with the subject of our present Report. It bears more especially on the question of diagnosis, and indicates the necessity for extreme care in arriving at a conclusion as to the existence of a dead fœtus in the abdomen. It is well known that several ovariotomy operations have been attempted in which, after the abdomen had been laid open, no ovarian cyst could be found, and the operator discovered to his consternation that either the tumour was a solid one and irremovable, or even—as has happened in more than one instance—there was no tumour whatever. Should it become a rule of surgical practice to attempt the early removal of the child by abdominal section in cases of supposed extra-uterine fœtation, it is probable that similar accidents from erroneous diagnosis, may occur.*

Mrs. W. a fairly healthy woman, aged 29, was admitted under Dr. James Jones' care in July last. She was the mother of one child now nearly three years old. The history which she gave of herself was, that after the recommencement of menstruation in the weaning of her infant, she continued to be unwell regularly, until January, 1859. At the latter date the menses were suspended, and she believed herself pregnant. In due time she felt the motions, her abdomen enlarged, her breasts increased in volume, and her whole condition was such that she never entertained a single doubt as to her con-

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* One such has indeed occurred, and that too under the scrutiny of a no less experienced man than the late Dr. E. L. Heim. Heim states that he was supported by the opinions of the most eminent practitioners in Berlin, in the belief of the presence of a full-timed fœtus in the abdominal cavity. The operation was undertaken by Dieffenbach, but the parietes having been fairly incised, no vestige of a fœtus could be discovered. The woman fortunately recovered. See Heim's "Vermischte Medinische Schriften," reviewed in vol. iv. of the *Medico-Chirugical Review*, 1857.

dition. In October she had attained a size about equal to that of the latter months of her previous pregnancy. A week or ten days after the time at which she had expected the birth of her child she was attacked by pain in the abdomen, and indications of the commencement of labour. The midwife whom she had engaged to attend her was summoned, and remained in attendance for three or four days, when, as things did not progress, a consulting accoucheur was called in, who with some hesitation, expressed his belief that the patient was not pregnant, and that an abdominal tumour existed. After this the woman got about again, and in November she received a blow on the abdomen subsequent to which she never again felt what she had considered to be the movements of the fœtus.

Condition at the time of Admission (eighteen months after the suspension of menstruation, and eight after the supposed death of the fœtus).—The woman's abdomen was about as large as that common in the seventh month of pregnancy. It was occupied by a large firm mass, which was centrally placed, and could be moved a little from side to side. In this mass the most careful handling failed to discover any irregularities like those presented by the limbs of a child. Over its right side at its upper part there was a broad shallow furrow, but with this exception its surface was equally rounded and equally firm and unyielding. The tumour did not deviate to either side, and occupied the whole of the front of the abdomen from the pubis to midway between the umbilicus and ensiform cartilage. Her breasts were both of them of considerable size, and she could squeeze milk from the nipples. The areolæ were dark. A broad brown streak extended from the umbilicus to the pubis. On examination per vaginam the os uteri was found to be high up, the cervix was short and appeared to end by being expanded into a rounded solid mass which occupied the upper part of the pelvis. With some difficulty a flexible uterine sound was introduced for the length of four inches.

Here, then, was obviously the question of diagnosis between a fibrous tumour of the uterus and a defunct fœtus, the result of an extra uterine or parietal gestation. The woman's history, and the fact that she had had no hæmorrhages, were strongly in support of the latter hypothesis, and several of those who examined her were inclined to adopt it. Against such a view of the case, however, was the whole of the evidence derived from the examination of the tumour, whether through the abdominal wall or by the vagina. It should be stated that the woman was thin, and that the tumour could consequently be very satisfactorily handled. Then, again, as to history. The suspension of the menstruation was the only fact to which much real weight could be attached. Cases of fancied pregnancy, on the part even of those who have previously borne children, and might be expected to have had experience enough to prevent such a mistake, are yet common enough. It is well known, also, that the breasts will enlarge in sympathy with any uterine tumour, and even that milk may be secreted under such circumstances. Although also it is perfectly true, that the growth of most intra-uterine tumours, more especially in their earlier stages, is attended by attacks of hæmorrhage, yet exceptions to this are far from unfrequent. Thus, therefore, the history, though at first sight appearing clear and definite in its indications, seemed to loose its conclusiveness on more searching scrutiny. Relying upon the more trustworthy evidence afforded by actual examination, Dr. Jones and most of his colleagues were induced to form a very positive opinion that the tumour was in reality a fibrous one, and had nothing to do with misplaced gestation.

EFFECTUAL USE OF THE SPONGE TENT IN STERILITY.

M. Pfeiffer mentions, in *L'Union Médicale* of the 28th ultimo, that Prof. Stolz of Strasbourg succeeded in removing sterility in the case of a healthy childless couple, who had been married four years. On examination, the cervix was found extremely narrow and very rigid. The use of tents of prepared sponge for a month or six weeks, with

an occasional warm bath of an hour's duration, were advised; and the lady became pregnant two months after beginning the treatment. She was eventually delivered of a healthy boy. This procedure seems to M. Pfeiffer preferable to the division of the cervix, as advised by Dr. Simpson, especially where the patients object to the use of the knife.—*Lancet.*

CASE OF SUPPOSED CONGENITAL ABSENCE OF UTERUS AND OCCLUSION OF VAGINA.

(Under the care of Mr. BARBER.)

[Notes of the case by Mr. H. J. KNIGHT, House-Surgeon.]

H. E., a healthy, good-looking girl, aged 21, applied at this Hospital last month for advice under the following circumstances. She stated, "that she had been married nine months, during the last two only, however, she had cohabited with her husband; that the marriage had never been properly consummated, and she thought there 'must be something wrong with her.'" She had always enjoyed good health, though she had never menstruated. When about the age of 14, she had fits of an epileptic character, which have recurred at irregular periods, sometimes with an interval of six months. She had never suffered from lumbar or abdominal pains.

An examination was accordingly made externally. The external parts presented a perfectly natural appearance. On separating the labia pudendi, the nymphæ were found to be well formed, but there was no meatus urinarius, or any communication with the bladder external to, or above the vagina. A small caruncle of mucous membrane about the size of a pea, and having on its upper surface a preputial membrane, represented the clitoris. The finger passed into the vagina revealed the following state of parts. That passage, instead of leading to the uterus, terminated in a cul-de-sac about two inches from its commencement; the mucous membrane moved freely on the subjacent tissues and there was no fulness or tension in any part. Just within the vagina was a septum or mucous fold formed by its anterior wall, in front of which the finger passed forwards through a passage of about an inch in length, grasped by a sphincter muscle, into a large cavity from which, on introducing a catheter, urine was drawn. She was examined also per rectum, and by means of a catheter passed into the bladder through the urethral opening in the vagina, but no hard body or sign of an uterus could be detected, nor was there any fulness in or about the rectum or lower part of abdomen. The diameter of the outlet of the pelvis was rather more contracted than natural, and the perineum was about half-an-inch in length. The mammæ were well developed; but she asserted that she had never experienced sexual desire or feeling, either prior to or since her marriage, though micturition was always excited by coitus. At a consultation held on the case, it was considered undesirable to attempt any exploratory operative proceeding, and she therefore left the Hospital in a few days.

The evidence in the above case as to the absence or rather the non-development of the uterus, may be classed under three heads: 1st. The non-occurrence of menstruation. 2nd. The state of the parts as ascertained by tactile examination. 3rd. The asserted absence of sexual desire. The latter point is one of course to which little or no weight can be attached; since, apart from the doubt which must be felt as to a woman's statement on such a subject, it is probable that the instinct in question has more to do with the ovaries than the uterus. In a case recorded by M. Depaul (*L'Union Med.* No. lxxxix. 1851), a young woman, aged 22, whose sexual organs were in almost exactly the same state as those of the Sheffield patient, had well developed breasts and had displayed marked venereal desire. M. Depaul, in this instance, believed that he detected the right ovary. Every month the woman had all the symptoms of menstruation except the flux. In place of the vaginal opening was a simple depression.

In Canstatt's "Jahresbericht" for 1850, vol. iv. page 322, Dr. Ziehl records the autopsy of a woman who had died at the age of 57, having been married thirty-two years. Although feminine in appearance and inclinations, and with perfectly developed external sexual organs, she had never menstruated. The vagina was found very narrow, and only admitted the finger for an inch, when it terminated in a cul-de-sac. No uterus could be felt. On opening the abdomen the Fallopian tubes were found enclosed in the broad ligaments behind the bladder, their fimbriated extremities being normal. In both the ostium abdominale was open, but in neither could any trace of ostium uterinum be found. The ovaries lay behind and below their respective tubes, and were somewhat wasted, wrinkled on their surfaces, dry and firm in structure, and consisting of small thick nodules. Not a rudiment of the uterus existed.*

The absence of menstruation in a well-grown and healthy woman of upwards of twenty, when it has been complete, and without any indication of retained secretion as afforded by the presence of a tumour in the pelvis, is a very significant fact as regards the absence of the uterus. It is, however, far from a conclusive one, and must only be relied on in connexion with others bearing on the same point.

Dr. Meigs, of Philadelphia, in his translation of Colombat's work on Diseases of Women, mentions a case which had come under his own notice, in which "a handsome woman, aged 22, had never menstruated. Although two years married, satisfactory coitus had never been accomplished. On examination, the vagina was found to be a cul-de-sac two inches in length, and, as far as could be ascertained, the uterus was wholly wanting. The reviewer of Dr. Meigs' translation in the *Medico-Chirurgical Review*, mentions, without giving any details, that a similar case had lately fallen under his own notice; and adds, "when proceedings were instituted to obtain a nullity of marriage, no precedent was discovered in the records of the Court."

In the twenty-fourth volume of the *Medico-Chirurgical Transactions*, Dr. Boyd (now of the Wells County Lunatic Asylum) records the case of an old woman who had died under his care in the St. Marylebone Workhouse, and in whose body no vestige of an uterus could be discovered. The right ovary was normal, but the situation of the left was occupied by a firm fibrous tumour of an irregular shape. The Fallopian tubes were not present. The mammæ were well developed for so old a person. The external parts of generation presented no unusual appearance; the mons veneris was but thinly covered with hair; a cul-de-sac about half-an-inch deep was all that existed of a vagina. The only information obtained as to the woman's previous history was, that she had been married, but had not lived on amicable terms with her husband.

Rokitansky writes, "Complete absence of the uterus must be considered as extremely rare; in most cases in which the uterus was found deficient in the dead or living subject, rudiments of a uterine organ of different forms were discovered."†

Thus it is probable that entire absence of the uterine function is more frequent than that of all trace of its structure. It is with such an arrest of development as involves total inability to take on functional activity that the practical Physician and Medical jurist have to deal. It does not affect their conclusions to know that in these cases the absence of all rudiment is rarely entire. The pathological fact to which the Professor's remark points is nevertheless an important one. It would seem that these instances of absent uterus and closed vagina are examples of local arrest of development only, and approach but little towards those more general malformations (often with excess of parts) grouped together under the name of hermaphrodites. In all the cases which we have mentioned above, the women possessed well-formed external genitals, and had probably no reason prior to marriage, apart from the emansio mensium, to suspect that they were in any way differently constituted to others. This fact increases the practical importance of the non-occurrence of menstruation very greatly. It is

* These cases are quoted in the *British and Foreign Medical Review* for October, 1851.

† Vol. II. Rokitansky's Pathological Anatomy, Sydenham Society's translation, page 271.

clear that a Medical examination ought to precede marriage in all cases in which the intended wife has never menstruated.

Dr. Taylor adverts to "the remarkable circumstance," that suits for divorce on account of alleged impediment to intercourse or procreation are almost always by the female against the male, and explains it by reference to the much greater difficulty in establishing sterility against a woman than impotence against a man. There can be little doubt, however, but that in such cases as those quoted above, very conclusive Medical evidence might be given in a Court of Law. Although these malformations may but rarely give occasion to suits for divorce, yet the amount of mutual unhappiness caused by them is probably very great.

It is a curious fact, that two murdered women have been proved to be subjects of absence of the uterus, one case being that of Hannah Brown, murdered by Greenacre, and the second that of a woman whose mutilated remains were found in the streets of a London suburb some years ago, and the mystery concerning whose death was, we believe, never unravelled.—*Medical Times and Gazette.*

DEATH OCCURRING HALF A MINUTE AFTER THE PENETRATION OF AIR INTO THE UTERINE SINUSES.

M. Depaul mentioned, at the meeting on the 4th inst. of the Surgical Society of Paris a case wherein it would appear that the introduction of air into the veins of the uterus caused almost instantaneous death. The patient was a rickety woman, about twenty-two, who twice before had been delivered by cephalotripsy, on account of narrowness of the pelvis. On her third gestation, she had a premature delivery; and when pregnant for the fourth time, M. Depaul resolved to bring on labour at seven months and a half. Douches were administered on two several occasions, without any distinct results; and used for the third time, with the usual instrument. The latter is composed of a cylinder and piston, connected with two elastic tubes, one of which is placed in a pail, to which the instrument is fixed; and the other, much longer, ends in a canula of india-rubber. Nothing particular happened at first, except a few pains. Four or five minutes afterwards, a peculiar noise was heard, showing that air was escaping, though the apparatus acted well. The douching was continued, when a gurgling noise was heard in the vagina, and the patient complained of very severe pains. She was, however, pacified and the operation proceeded with. For the third time air escaped through the tube with the water, and another gurgling noise was heard in the vagina. The canula was now withdrawn, and M. Depaul desired the patient to rise and walk about the room. But when she tried to get up, she turned pale and fell; the pulse at the wrist was gone, and the heart had ceased beating. Efforts were made to revive her, but to no purpose—she was quite dead. M. Depaul, hoping then to extract a living child, proceeded at once to the Cæsarean operation. The uterus, instead of being of a reddish brown, was of a pale pink, and when the knife had divided a portion of the thickness of the walls of the womb, a sanguineous froth appeared, instead of the usual gush of dark blood. In proceeding with the incision, bubbles of air escaped, which must have been between the membranes and the inner surface of the uterus, as the former had not as yet been divided. The child, on being extracted, was apparently dead; but by insufflation from mouth to mouth, it at last breathed, and lived for fifteen hours.—*Lancet.*

PRACTICAL REMARKS ON FŒTAL AUSCULTATION.

By R. Druit, L.R.C.P., London.

The readers of the *Medical Times* have been startled by the announcement on the part of one of the most learned physicians in the world, that the fœtal heart cannot be heard before birth; that if certain sounds be heard, said to be those of the fœtal

heart, there is no certainty attainable that they are what they are supposed to be; and that the commonly described sounds are illusions, and exist only in the minds of the listeners. First of all, as to the facts asserted, and the reasonableness of them. To many physicians is is absolutely certain, that at most times, in women pregnant of a live child, especially after the fifth month, there can be heard, over some part of the enlarged uterus, a small and distant, but often remarkably distinct heart-beat, varying from 140 to 180 in a minute. By a heart-beat is meant a double beat, of one louder and more pronounced, and another shorter, immediately succeeding, and less pronounced.

It is said to be incredible that the sounds of the fœtal heart can reach the ear through so great a mass, consisting of uterine tissues, vessels, and the limbs of the child. But the thickness of the uterus and abdominal walls is not great, and not to be compared in sound-deadening qualities to a common pillow. But who doubts that the ticking of a watch can be heard under a pillow? The writer has heard his own watch through the thickness of sixteen folds of blanket. There is, also, no real difficulty concerning the counting of so large a number of pulsations as 160 in a minute. The breathing of dying children may be distinguished at 180; the pulse at 240. The ticks to a lever watch are five to a second, and may most easily be counted at 240 per minute. When the piano is played rapidly, the ear can readily recognize 720 sounds in a minute.

There is no doubt that a woman may be pregnant of a living child, and yet that at times the fœtal heart-sounds may not be discovered even by one accustomed to the search. Hence, the absence of the sounds can never be taken as a proof that the fœtus is dead, or that pregnancy does not exist.

Again, sounds may be feebly heard, so that the observer cannot say that they are not heart-sounds; or other sounds may be mistaken for those of the fœtal heart. If the sounds are not confined to a small circle, or are synchronous with those of the maternal heart, they should not be suspected to be fœtal.

Of all the signs which distinguish the enlarged uterus from other tumours, none are more valuable than the following: the uterus, like other hollow viscera, has a regular peristaltic motion, continuous throughout pregnancy, (and after delivery,) and consisting in periodic contractions, which cause a moderate but decided tension of the organ, and are followed by flaccidity and repose. No other tumour, not tympanitic, can do this; and during the fits of contraction, the shape, dimensions, and outline of the organ are unmistakable. When about to auscultate, gently shampoo or roll the abdominal parietes over the womb, till it becomes hard and resisting. This is the moment for auscultation. Put the stethoscope on the womb, and perpendicular to its surface. Search carefully on the horizontal line on a level with the anterior-superior spine of the ilium; beginning on the left side, then a little above and below; if unsuccessful, go to the right side. Take care that the attitude is easy, and produces no rushing sound in the ears.—*Medical Times and Gazette.*

MEDICINE.

At the Harveian Society, Dr. Toulmin, of St. Leonards, read a paper,

ON THE IMPORTANCE OF THE FUNCTIONS OF THE SKIN IN THE PATHOLOGY AND TREATMENT OF TUBERCULAR CONSUMPTION.

He commenced by offering as the proximate cause of tubercle in all cases, "the breathing of impure air, and air in so small a quantity as to render it impure, especially during the night." He observed that wherever this was the continuous state of existence, the result must be a deficiency in the red globules of the blood, and as the

consequence of this, the deposition of plastic fibrin in an incomplete state of oxygenation, and, therefore, of organization, and thus incapable of being ultimately got rid of by change of matter. It consequently remained as an extraneous adventitious substance in the system, offering to the observer all the characteristics of tubercle. To explain the discrepancy which appears in the rich (who have no want of oxygen in the air they breathe) being equally subject to phthisis as the poor, he drew the attention of the Society to the importance of the respiratory functions of the skin, as proved by the almost instant death that occurs on closing the cutaneous pores by artificial means —as in varnishing and gilding the skins of rabbits and other animals; and observed, that in consequence of the coldness of our climate, and other causes, the higher classes of society were certainly not in the habit of making the washing the whole surface of the body a part of their daily toilet, and, consequently, that the exuviæ momentarily forming on the surface of the skin, the joint production of the sordes from within combined with the *débris* of the cuticle, soon render the skin more or less impervious, although the individual might be in the habit of changing his linen daily. As an illustration of this state of skin, the author referred to acne, so frequently seen on the face, as being in reality the general state of the skin of a large proportion of society, especially in the earlier periods of life, when phthisis generally shows itself; and that the free entrance of air, as well as the exit of carbonic acid through the skin, being thus impeded, the same imperfect oxygenation of the blood ensues as is produced in the poorer classes by breathing mephitic air. He remarked, that for the removal of this state of skin the only means were to be found in instituting a full and free diaphoresis by the aid of artificial heat, the result of which, in first softening, and then expelling large quantities of inspissated sebaceous matter, after the surface of the body had been washed clean with soap and water, was surprising. The author drew the attention of the Society to the fact, that the use of the hot air bath, as a therapeutic agent was no innovation on the established practice of the profession, as it was the mode of bathing practised by Hippocrates, Galen, and Celsus, and that the universality of the practice was shown by the fact, that the remains of such baths had been found in every colony of the Roman empire.

The author enunciated some novel doctrines, both as to the nature and treatment of phthisis. For instance: If tubercle be imperfectly organized fibrin, then it should be looked upon as a blood-disease; and seeing it is found in other parts besides the lungs without destroying life, its deposition in them should not be considered as disease either of the lungs or air-tubes, but as an accidental circumstance, killing mechanically by its ulceration extending to the surrounding lung tissue. Again, he called in question the propriety of sending consumptive patients abroad to a warm climate during any stage of the disease, as, although in the later stages of the complaint, when the air-tubes sympathized with the tubercular irritation, a warm atmosphere seemed more congenial to the patient's feelings, still in the earlier stages, when a cure was practicable, the breathing the open air of our winter (at least on the south side of the island) was most important; and he instanced as a proof that breathing cold air did not cause the complaint, the remarkable fact, that tubercular consumption is not to be met with in high northern latitudes.

The treatment of phthisis was considered under its hygienic and medical aspect. Under the former, and particularly in the earlier stages, the patient was recommended to live in a high, dry, and marine atmosphere, *on* the downs, rather than *under* them; to be as much as possible in the open air; to use all sorts of athletic exercises (avoiding such as accelerate the pulmonic circulation) suitable to the sex and strength of the patient, by which a more rapid change of matter is effected, together with absorption of already deposited tubercle, as well as the deposition of more healthy—i. e., of more highly organized, matter. Medically, the treatment was comprised in a few short aphorisms, the first and most important being,—Keeping the functions of the skin in healthy action by means of the hot-air bath. 2ndly. Anointing the whole surface of

the skin daily with some oleaginous matter. 3rdly. Keeping a local ulceration always patent by means of an issue or seton. 4thly. The exhibition of some one or more of a large variety of tonic and antiseptic medicines—all admirable adjuvants in improving the general health, (if selected in conformity with the function most sympathizing with and reacting on, the disease,) but powerless in arresting the specific lesion in question, without the previous "Open sesame" of the hot-air bath, followed by the aspersion of cold or tepid water. The author expressed himself as fearful of saying all that might be advanced in favour of this treatment in phthisis, seeing that the disease was universally considered incurable. He, therefore urged the Society to try it for themselves, and be guided thereafter by its effects.—*Lancet, June* 14, 1860.

INVESTIGATIONS CONCERNING HYDROPHOBIA.

From a series of returns made upon this subject, from different departments in France, during several years, and epitomized by Dr. Tardieu, in the *Annales d'Hygiène Publique*, we glean some interesting information upon the following points:—

I. *The Species of Animal by which the Hydrophobia was communicated.*—Out of a total of 228 cases in which reference was made to this point, 188 were stated to have been produced by the bite of a dog, 13 by that of a cat, 26 of a wolf, and 1 by the bite of a fox. In two cases in which the bite of a cat produced the disease, one animal is reported to have become rabid in consequence of an extensive burn, another owing to its having been robbed of its young. These cases are of considerable interest, as they tend to resolve the still doubtful question of the spontaneous development of hydrophobia in other species of animals than the canine.

II. *The season of the year at which this disorder is most frequently developed.*—This circumstance was noted in 181 cases, 110 of which occurred during the hot seasons of the year, 71 only during the cold. There is, doubtless, a marked difference in favor of the months in which the temperature is most elevated, but it does not remain a less constant fact that no season is really opposed to the development of hydrophobia, or can render its effects less formidable.

III. *The average number of persons who escaped the malady after being bitten.*—On this point we have the records of 198 cases of persons who were bitten, in many instances by the same animal; of these, 112 were subsequently seized with hydrophobia, whilst the remaining 86 experienced no ill effects. We need scarcely remark that numerous adventitious circumstances, such as the interposition of an article of clothing to which the saliva of the rabid animal might adhere, the state of the patient's mind or health after the injury, &c., would considerably influence the results in this particular.

IV. *The length of the stage of Incubation*—In a large majority of cases this was not more than a few weeks. Out of 147 cases referred to, the period of incubation was under a month in 26, more than a month but under three months in 93 cases, whilst in the remainder the length of time occupied was from six to twelve months. The incubatory period appeared shorter in very young persons than at any other age.

V. *The length of time between the development of the disease and its fatal Termination.*—On this point the statistics collected corroborate too fully the preconceived ideas, as to the rapid progress of the disorder. Out of 161 cases death put an end, within a week, to the horrible sufferings of the patients in 158, more than one half of that number dying within four days, even, from the time at which the malady first manifested itself.

VI. *The relative effect of the means employed to prevent the development of Hydrophobia.*—Upon this all-important portion of the subject Dr. Tardieu observes that the fact cannot be too strongly insisted upon, that the only hopes of security from the fatal effects of this dreadful disease consist in immediate cauterization with the red-hot iron, and that every other method only compromises the future safety of the patient by the

irreparable loss of the only moments during which the preventive treatment is applicable.

VII. *Curative treatment of Hydrophobia when it has become developed.*—Dr. Tardieu makes the disheartening statement that of all the remedies which have as yet been suggested, chloroform included, for the treatment of hydrophobia when fully developed, he has found none to have been attended with sufficiently promising results to enable him definitely to say that it will effect a cure.—*London Medical Review.*

ON THE ATHEROMATOUS EXPRESSION.

By George D. Gibb, M. D. (London Lancet, May 12, 1860, p. 463.) from N. A. Med. Chir. Review.

We have a record of the observations of one who acknowledges that his attention for a number of years has been directed to the inquiry whether those with whom he was brought in contact in the daily routine of practice, or in the course of his daily perambulations, were characterized by an "atheromatous expression." There is a large number of persons who enjoy, apparently, a fair share of health, and whose appearance to many is that of extremely good health, but who, to an acute observer, have a peculiar expression of countenance, induced, as Mr. Gibb thinks, by changes in the system at large from the influence of fat and its numerous compounds, the invariable result of saccharine conversion in the economy. The pathological phenomena associated with such an alteration of the countenance are mainly due to changes in the blood, leading to the the deposition of atheromatous matter in the coats of the blood vessels. Life becomes jeopardized by the risk of cerebral hemorrhage or intense congestion, by fatal cardiac syncope, or by aneurismal disease in distant parts. The condition of the vessels is never the result of inflammatory action but is unqestionably due to simple metamorphosis, through the agency of the blood. The characteristic features of the "atheromatous expression," described by Dr. Gibb are a peculiar greasy appearance of the face, especially about the prominent part of the cheeks and end of the nose; the lips are full, the ala of each nostril is smooth and rounded, and the subcutaneous areolar tissue, abundantly supplied with adipose matter, gives plumpness and development to the countenance.

The skin may be reddish or pinkish, with the small vessels on its surface injected here and there with blood of a bright-red color, sometimes having an irregularly streaked appearance. The eyes have a fatty lustre, and sometimes a simple arcus adiposus or arcus senilis exists, or occasionally a complete annulus of the same kind.

The expression is by no means one of discontent or ill health, and may be seen in those in the prime of life as well as those of advanced age. "As a rule," says the writer," which I have worked out by watching a large number of persons thus featured, life is extremely uncertain, and sooner or later becomes the forfeit, to the astonishment of their friends, who had hitherto looked upon them as models of health from their complexion and general appearance. Persons thus featured, may however, with quiet, care, moderation in living, the avoidance of excitement, etc., go on smoothly and comfortably to a ripe old age." The *calcareo-atheromatous expression*, a modification of the other, is accompanied with excessive degree of pallor, depending upon the extensive deposition of calcareous or earthy matter in the blood-vessels, that is, the major vessels of the extremities, which become hard cylinders. A distinct bluish-white ring, in these cases, surrounds the entire margins of the cornea. Dr. Gibb describes one case in which the *calcareous expression* alone existed, with an entire absence of atheroma. The heart and all the blood-vessels are not extensively diseased in these affections simultaneously; in the case just cited, for example, the heart not being perhaps involved beyond calcification (not atheromatous degeneration) of the coronary arteries. It is observed that while the body becomes in the condition of advanced senility, the intellectual vigor remains perfect. The subject is one open to a further investigation, and worthy of more extended observation.

THE

British American Journal.

MONTREAL, SEPTEMBER, 1860.

THE CATTLE DISEASE IN MASSACHUSETTS.

In compliance with the wishes of one of our subscribers in New Brunswick, we have condensed within limits commensurate with the importance of the subject, the most valuable part of the information which we have been enabled to obtain, relating to this epidemic so prevalent in some of the Northern States, and which, we perceive there is some reason to apprehend, is extending itself to Nova Scotia and New Brunswick. Fortunately Canada has not yet, so far as we have been enabled to learn, been visited by it, although fears at one time were entertained. In the first place, we have to observe that the proper appellation of the disease based upon its pathology, is "Pleuro-pneumonia." It is now nineteen years since the "lung complaint" was exported from Holland into Great Britain, by pneumonic cattle, whole herds of which in the former country, previous to this period, it had thus destroyed. On the continent of Europe, it had also devastated the herds of Austria, Prussia, France, Spain and Portugal, and we believe that this list of kingdoms might be extended.

Pleuro-pneumonia, pulmonary murrain, or as commonly designated "lung disease," is a malady, as its name implies, involving in inflammation, and its results, the pleura (or membrane investing the lungs,) and the lung tissue itself. With regard to the lungs, the disease seems to pass through the same stages as in the human subject; first, the stage of engorgement, then the stage of hepatization, and finally either that of resolution, or what has rendered the epidemic so peculiarly fatal, a third stage of suppuration or gangrene supervenes. We are unable to say which of these two latter episodes is the most common. From the length of time during which the animal has lived labouring under the disorder, we apprehend that the suppurative condition is the more common termination. There is stated to exist in reference to this affection among cattle, that its invasion and progress are attended with unmistakable symptoms of exhaustion or debility, imparting to it in fact a kind of typhoid type, thus utterly precluding even at the commencement of the disease a recourse to bloodletting.

Symptoms. The symptoms of this malady are very distinct and well marked. There is loss of appetite,—hanging of the head, and as the disorder progresses,

an extension of the head,—a bright and watery eye,—a flow of saliva from the mouth, which on the contrary is sometimes seen dry as well as the nostrils, —breath hot,—breathing quick with more or less agitation of the flanks,—there is most commonly a cough, which is always dry; in fact, this cough partakes more of the character of a grunt, and is stated to be pathognomic of the affection in consequence of its peculiarity. There is always more or less thirst, and the horns and ears are hot. The quick and occasional cough, coupled with great prostration of strength, more particularly mark the progress of the disease. There exists sometimes diarrhæa,—at other times constipation,—and there is usually noticed also a suppression of rumination.

The *physical* signs of the disease are admitted on all hands to be the same as those of pneumonia in the human subject. All writings that we have seen, indicate the presence of a peculiar crackling noise (the crepitant rale) which may be heard by applying the ear to the affected animal's side, but they all singularly enough confound this sign, and consider it as proof of the existence of the condition of hepatization or consolidation, while it is pathognomic of the stage which precedes it or the stage of engorgement.

We have not learned whether the stethoscope can be employed as successfully in the diagnosis of thoracic diseases in lower animals, as it is in the human subject. Probably the hair may present an almost insurmountable obstacle. However, the immediate application of the ear is the means employed for the detection of the crepitation; nor have we learned that veterinarians have yet been enabled to arrange and classify those other peculiar rales, which are so distinctive of the other physiological conditions into which an inflamed lung may pass.

Treatment. The treatment of this disease has been generally extremely empirical. As antidotal, or prophylactic, or preventative, we give the following which we have taken out of a newspaper; "burn tar freely in the barn or shed two or three times a day, and let the cattle inhale it, but not too close; let them lap freely of salt every other day; dissolve chlorate of potassa in water, wash their nostrils and mouth with it, and rub them all over with a coarse brush wet in the same; sprinkle chloride of lime in and about the stables; give the cattle a few onions if they can be procured, and plenty of sound vegetables, and fresh grass and water—no hay if it can be avoided." The secret of all this, as in all affections influencing the human family, whether epidemic or infectious, is free ventilation, thorough cleanliness, both personal and about the dwelling, the avoidance of unnecessary exposure, and the use of plain, nutritious food, objects capable, we imagine, of being thoroughly carried out in every barn or stable; and as there is, we believe, no doubt whatever existing of the infectious nature of the disease, the strictest isolation of every infected animal should be observed.

We conceive it altogether unnecessary to specify in detail the hundred and one remedies and treatments which have been proposed. We will simply make a passing allusion to one in particular, viz., inoculation, and then detail what seems to us the most judicious and scientific which has been yet proposed, and which we take from the "Chemist and Druggist," a valuable monthly serial published in London.

Inoculation, as suggested by Dr. Willeins as a preventative of the disease, and practised in Holland, consists in plunging a lancet into a consolidated lung taken from a pneumonic cow or ox, and by making with this instrument covered with exudation from the diseased lung, an incision in the dock of a healthy animal. The animal so operated upon is said to be inoculated, and if the virus takes, the tail will in a few days be found more or less swollen. But this swelling, the result of the inflammation which ensues, is sometimes, and often too, of so virulent a nature, that it involves not only the tail, but the hind quarters and even the abdomen in disease: pus forms, the swellings become indurated, and the poor animal, prostrated with suffering, dies. For some time this course of treatment was adopted in England, but more especially in the London dairies, where in the sheds, numbers of cows might be seen, it issaid, with tails little more than a foot long, one evidence of the cruelty of inoculation. In fact, to prevent the extension of the inflammation, the result of the inoculation, up the dock, (the disease "running up the tail" as they say) they amputate the tail just above the inflamed part. The editor of the work alluded to says: "We therefore believe inoculation to be useless and cruel; the former, because we have never as yet seen any good result from its adoption; and the latter, because it often produces inflammatory swellings in the tail, hind limbs and abdomen, of so intense a character that nine cases out of every ten so affected die." And in corroboration he quotes the following opinion of Dr. Greenhow on the practice: "that inoculation with the liquid extracted from a lung hepatized in consequence of pleuropneumonia, is not an absolute preventative against that disease; that the phenomena succeeding inoculation may occur several times upon the same animal whether it has or has not been affected with pleuropneumonia. On account of the suffering it causes animals, and the losses that are its immediate consequence when performed strictly in accordance with the the practice of Dr. Willeins, it is at once a cruel and a useless proceeding." These remarks, made by two such competent authorities, should tend to abolish the practice of inoculation in toto, which we trust it has done; but even were it moderately successful, we can fancy the misery ever after entailed on the poor creature which has been deprived of its only means of defence against its numberless winged tormentors.

We quote again from the same journal, the following plan of treatment, which certainly appears to us the only one based upon an accurate appreciation of the true pathology of the disease: "Immediately on the appearance of the disease, shave the hair from the sides of the chest, and well rub in a blister of the Biniodide of Mercury. Administer daily for three (or more? Ed. B. A. J.) consecutive days, in gruel, one drachm each of tartar emetic and calomel; after which period, in place of the above, give daily a drachm of Sulphate of Quinine dissolved in water, acidulated by a sufficiency of Sulphuric Acid to effect its solution, the whole to be added to a quart decoction of Cinchona or Peruvian bark, as prescribed by Lepona of Turin. The decoction is made with three ounces of the bark to a quart of water. Lepona states that three or four such doses are sufficient to effect a cure. We have adopted the above treatment during the past four years with great success, and therefore can recommend it to our readers as good treatment." To this we would only suggest, that in the second stage or

that of hepatization, and especially in the third stage if of suppuration or gangrene, and when the typhoid symptoms are running high, the subcarbonate of ammonia, would be found, we think, a really valuable adjuvant, by rendering the expectoration more easy and free, and supporting at the same time the flagging powers of the system.

In concluding the article in the Chemist and Druggist of which we have made free use, the editor observes, that Mr. Moore, a veterinary surgeon, of Upper Berkeley street, has arranged a Turkish bath for the treatment of horses suffering from rheumatism. We hear most satisfactory results have been obtained, and that the celebrated filly Butterfly, during her training for the Oaks, was repeatedly placed under the influence of the above bath." The hint here thrown out, is by no means to be disregarded. If it were possible to give a sick animal a warm bath at the commencement of the attack, the greatest benefit might reasonably be expected from it; as by gently exciting the capillaries of the skin, and inducing copious perspiration, the congested condition of the lung would necessarily become materially relieved. Great care in the after management would be required, but we think that no insuperable difficulties should be encountered under such circumstances.

We have gone further into this subject than we proposed, but we found it increase as we progressed. We trust that our subscribers will pardon our having taken up so much space with such a subject. Its true importance however cannot be overestimated, and if we shall have been found instrumental in directing the treatment of this hitherto intractable scourge in the proper path, and placing it upon someting more stable than the whim or the caprice of a blacksmith, we shall be satisfied. The principles which ought to guide the practice have been indicated with as much clearness as we were capable of; we may carry out those principles by adopting other means, but it will come to the same result in the end, the hope of diminishing the mortality, the grand object of all treatment.

CHARLATANISM IN THE PROFESSION.

If there is an act for which the qualified and regularly educated Physician should receive the merited disapprobation of the members of the profession which he has dishonoured, it is that of petty charlatanism. Little indeed would be thought of the practice, if its effects were confined exclusively to the individual who perpetrated them; the loss of caste which it entails is confined to the individual himself, and is unperceived by the public; but unfortunately the body corporate or the profession of which he is a member suffers a deterioration and a loss of prestige and moral influence, when it is known that among its members men are to be found, who with all the advantages which education and rank can give, can stoop from their high position, and for the sake of a paltry dollar adopt the usages of the veriest charlatan.

Ideas such as these flitted through our mind, when we read, to our unfeigned astonishment, the advertisement of Dr. Benjamin Globensky, of this city, in the Quebec Chronicle of August 3rd, headed in large capitals, " Great Discovery—a relief

for coughs, colds, and incipient consumption, and relief for pulmonary affections in advanced stages of the disease," the advertisement continues thus:—"This great discovery is so well known in Montreal (it is singular that we have never heard of it) and the vicinity, as surpassing every other for the cure of diseases of the throat and lungs, that it is unnecessary to publish more testimony in favour of its medicinal efficacy. As a remedy for coughs and colds it is unrivalled, and the truly wonderful cures it has worked alone recommend it. Apply to Dr. Benjamin Globensky, Great St. Lawrence st., Montreal. His charges are very moderate. Sufferers who may consult him for diseases of this description may rest assured that they will in many cases escape the danger of a certain death." Then follows a letter of gratitude from a Mr. N. G. Limoges, merchant, 80 Great St. Joseph st., Montreal. This is succeeded by another from Mr. Mercier, a priest, given by permission of Messire D. Granet, Superior of the Seminary of St. Sulpice, recording the successful treatment of Messire Charles Lenoir, Director of the Montreal College; and finally is a third letter from Mr. Charles Langevin of Quebec, who states "that he had all the symptoms of consumption, spat blood, and felt that general and gradual debility which augurs so badly." He furthermore states that—"I had almost despaired, when, after having ineffectually tried trips to the salt water, change of climate, and several other remedies, I heard of your ability to cure consumption." He sought Dr. G's aid, followed his prescription, and of course recovered.

We have thus given an outline of the advertisement, one which occupies about three-fourths of a column of the Quebec Chronicle; and a more glaring piece of charlatanism we have never seen, aided and abetted in the most innocent manner by reverend gentlemen of the Seminary and College in this City, who we feel persuaded would never have allowed their names to have been so used had they been fully aware of the light in which such a document could not but be viewed by a profession, which in its vocation seeks the means of benefiting not merely the inhabitants of any given place, but the world at large, "which freely as it has received freely gives," and which recognizing the benefit of a remedy in a given complaint, does not miser-like hoard it from sordid motives, but proclaims it abroad that all may benefit thereby.

If Dr. Globensky possesses the knowledge of a remedial agent, of such unquestionable efficacy in the treatment of Phthisis, it is his bounden duty as a Christian and a physician to disclose it, that the whole human family may be benefited. It will not make one penny the less in his pocket, while his name will descend to posterity with an unfading lustre.

It is with no little pain that we have penned the preceding reflections:—A duty superior to that of a friendship, which has existed for a very long time, compels us. We may say truly, that "it is not that we loved Brutus less, but that we loved Rome more," that we have thus written, and we hope that these remarks will cause Dr. Globensky to see the true position in which we cannot but think he has unwittingly placed himself; and we are yet afraid, that he must have known that he was doing something whereof to be ashamed, when the Quebec papers alone received the benefit of his advertisement, doubtless in the hope that it would not be seen by any Montreal eye.

ADDRESS TO THE PRINCE OF WALES.

Advantage was taken of the late visit of the Prince of Wales to this city to present him with the following address from the College of Physicians and Surgeons of Lower Canada. It was graciously replied to, by letter from His Grace the Duke of Newcastle, by command of His Royal Highness.

To His Royal Highness, Albert Edward, Prince of Wales, &c., &c.

May it please Your Royal Highness,

We, the President, Vice-Presidents and Governors, representing the College of Physicians and Surgeons of Lower Canada, possessing privileges and powers nearly similar to those of the Royal Colleges of Physicians and Surgeons of England, desire to take this opportunity of welcoming Your Royal Highness to Canada, as the Heir Apparent to the Throne of England, and the Representative of Her Most Gracious Majesty, with every assurance of our loyalty to the Queen, affection for Her family, and grateful appreciation of the blessings which we enjoy under Her wise and patriotic rule.

And we are the more pleased at being allowed the privilege of making this assurance to your Royal Highness, because we feel confident that you will rightly estimate the character and importance of such a Corporation, as that in whose name we now appear; that you will understand how wide is their sphere of action, how great their influence upon the community at large. And we trust it will always be our endeavour, as it is certainly our duty, so to labour in our vocation, that we may not only promote the physical improvement and bodily health of Her Majesty's subjects, but also contribute in every way to the welfare and greatness of Canada, that so Her Majesty may have increase of Glory in the growth and prosperity of this bright jewel of Her Imperial Crown.

Signed on behalf of the College of Physicians and Surgeons of Lower Canada, this twenty-seventh day of August, in the year of our Lord one Thousand Eight Hundred and Sixty.

[*Here follow the names of the officers and nearly all the Governors.*]

We have only to add that it was presented by the President at the Levee held by His Royal Highness on the 27th ult. in this city.

DR. ACLAND..

This gentleman who is temporarily fulfilling the duties of Physician to His Royal Highness and suite in their travelling tour, visited, we understand, Dr. Smallwood's Observatory at St. Martin's, and was much pleased with what he witnessed there. Although extremely anxious to visit our Medical institutions, his time was far too limited to give any of them much more than a passing glance. He visited, however, the new Hospital of the "Sainte famille," and suggested to the ladies in charge there, several improvements, one of vast moment, in regard to the ventilation of the wards. He spent about twenty minutes in the Montreal General Hospital. He afterwards witnessed the management at the Hospital St. Joseph, another new establishment of a highly important character, and little known even though located in the midst of us. Here the industrious mechanic, parent or labourer, may deposit his children during the day while he is at his work, the ladies of the Hospital taking charge of them, providing suitable food in cases of extreme poverty, and when practicable teaching them the elements of an education. We observed about 200 child-

ren on the occasion of this visit, the oldest not over, we should think, three years, and the readiness with which they replied to the questions put, was surprising. We regard this as a most valuable institution, and one which is doing, and will do, an incalculable amount of good. His visits to the Grey Nunnery and the Hotel Dieu, our oldest Hospital here, were, very much indeed to his regret, mere passing ones. He expressed to us, however, the possibility of the return of the party before the final leave from this continent, when he will be more at leisure to examine the working of our Hospital systems.

SIR BENJAMIN BRODIE.

We regret extremely to learn from the *Medical Times and Gazette*, of the 18th August, that the respected President of the Royal Society, and of the Medical Council, underwent on the 12th of July, the operation of iridectomy on both eyes, under the influence of chloroform. Sir Benjamin's eyesight had been failing since last Christmas, but only became painfully so since the completion of his 78th year, last June. The disease was regarded as senile cataract, affecting both eyes but chiefly the left one. When attending the meeting of the British Association at Oxford, his eyes were examined, and the disease was pronounced glaucoma, for which he underwent the operation. Little or no benefit followed; but since this, although scarcely any relief was afforded to the left eye, vision in the right eye has entirely gone. A cataract has been unmistakably observed in this eye, for which extraction will, it is supposed, shortly be performed, while it is confidently hoped that the same disease is the impeding cause of vision in the left one. We are persuaded that all Sir Benjamin's friends will deeply regret the information which we are now conveying.

MR. LINTON AND DR. SHAVER.

In consequence of Mr. Linton's animadversions on Dr. Shaver's position as a qualified practitioner of Upper Canada, which will be understood from late articles in this manual, Dr. Shaver replied to that officious personage in a paper called the "Examiner," published at Stratford, and in that communication designated him as "non compos mentis," in consequence of which the latter is endeavouring to establish a character for "sanity" by an action for libel against the former. We have, whether fortunately or unfortunately, no personal acquaintance with the said gentlemen, and are unable to testify how far the charge is true. We must say, however, that if he is not "non compos," he certainly appears to be a most worthy descendant of an old knight, yclept Don Quixote, as his exploits are of a somewhat similar character. His attacks upon the licenses of the Lower Canadian College of Physicians and Surgeons resemble strongly those of his prototype upon the windmill.

TUMBLETY FINED.

This well known character, we are happy to perceive, has received his due deserts at last. We never met with an individual who excelled him in effrontery,

nor did we ever, in all our experience, witness a more thoroughly uneducated man, more idolized we were almost going to say, by the public than he, during the time he remained in this city. His surgery, or consulting rooms, as he was pleased to term them, were crowded, and guineas were poured into his lap by parties, who paid with grudge the smaller fees demanded in ordinary practice by the regularly educated physicians, or, as not unfrequently happened, never paid them at all. We notice in one of our exchanges that he has been fined at St. John's, N. B., in £20 and costs amounting to 30s. 6d. additional, for assuming the title of M. D., contrary to the provisions of the Medical Act. We are not acquainted with the medical law of that province, but we would wish to know, if there is not a law in force there, under which he could have been convicted for practising without a license.

COLLEGE OF PHYSICIANS AND SURGEONS OF LOWER CANADA.

We notice, by advertisements in the daily papers, that the next semi-annual meeting of the Board of Governors is summoned at Quebec on Tuesday, October 9th, at 10 A. M., at the Laval University. Students for preliminary or professional examination are required to make their application to either of the District Secretaries, complying at the same time with the customary regulations, at least fifteen days before the meeting.

BOOKS, &c., RECEIVED FOR REVIEW.

The Retrospect of Medicine, edited by W. Braithwaite, Lecturer on Obstetric Medicine in the Leeds School of Medicine: Vol. 41, January to June 1860. London: Simpkin, Marshall, & Co.

The Half-Yearly abstract of the Medical Sciences, edited by W. H. Ranking M.D., & C. B. Radcliffe, M.D.,: Vol. 16, January to June 1860. Philadelphia: Lindsay, & Blakiston: Montreal, B. Dawson & Sons.

Annual Address delivered before the Medical Society of Clinton County, State of New York, June 6, 1860, by T. J. D'Avignon, M. D., of Ausable Forks: Plattsburg. J. W. Tuttle.

The Physicians Visiting List, Diary & Book of Engagements for 1861: Philadelphia, Lindsay & Blakiston: Montreal, B. Dawson & Sons. 0.75 to $2.00.

Palatine Fissure, its remedy by artificial means considered, by Charles W. Stearns, M.D., New York, Edward O. Jenkins.

A Practical Treatise on the Diseases of the Lungs, including the principles of physical diagnosis by Walter Hugh Walshe, M.D., &c. Philadelphia: Blanchard & Lea, 1860: Montreal, B. Dawson & Sons. Price, $2.25.

On Obscure Diseases of the Brain and Disorders of the Mind: their incipient symptoms, pathology, diagnosis, treatment and prophylaxis, by Forbes Winslow, M.D., &c., &c., 1860. Philadelphia: Blanchard & Lea: Montreal, B. Dawson & Sons. Price, $3.00.

On the Diseases, Injuries, and Malformations of the Rectum and Anus with remarks on Habitual Constipation. By P. T. Ashton, Surgeon to the Blenheim Dispensary, with illustrations, 1860. Philadelphia: Blanchard & Lea: Montreal, B. Dawson & Sons. Price, $2.00.

Report of the Medical Superintendent of the Provincial Lunatic Asylum, Toronto, for the year 1859. Quebec: Thompson & Co., 1860.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT *MONTREAL* IN AUGUST, 1860.

By Archibald Hall, M.D.

Day.	Barometer corrected and reduced to F. 32°	Temperature of the Air.	Dew Point.	Relative Humidity.	Ozone.	Clouds. Amount.	Clouds. General description.	Maximum read at 9, P. M.	Minimum read at 7, A. M.	Its general Direction and Mean Force from 0 Calm to 10 Violent Hurricane.	Rain in 24 hrs read at 10, A.M.	Snow in 24 hrs read at 10 A.M.	Total rain and melted snow	GENERAL OBSERVATIONS.
	Inc's.	°	°	0.100	0.10	0.10		°	°	0.10	Inch.	Inch.	Inch.	
1	29.995	62.4	52.7	.72	2.5	0.6	Strat.	70.3	51.0	N. W. 2.6	0.02	.....	0.02	
2	30.083	67.1	56.7	.70	1.5	3.6	Cir. St.	77.5	64.0	S.W. 1.0	.....	.....	.....	
3	29.925	73.6	58.3	.60	2.0	3.6	Nimb.	83.3	57.2	S.W. 2.3	.....	.....	.....	
4	29.716	75.6	63.8	.70	1.0	6.3	Cu. St.	86.0	67.5	W.S.W. 2.3	0.49	.....	0.49	
5	29.951	71.0	56.9	.62	1.0	0.0	0	81.5	63.0	N.E. 1.3	.....	.....	.....	
6	29.951	72.4	59.9	.66	1.0	2.3	Cu. St.	84.4	60.6	S.S.E. 1.3	.....	.....	.....	
7	29.721	79.5	68.1	.72	2.0	10.9	Cu. St.	90.0	67.8	S.W. 3.0	Inap.	.....	Inap.	Thunderstorm, squally.
8	29.687	78.7	68.2	.72	1.5	2.6	Cu. St.	88.0	71.6	W.N.W. 2.0	Inap.	.....	Inap.	Faint Aurora.
9	29.733	68.6	62.7	.82	4.5	6.3	Nimb.	83.0	63.0	W.N.W. 1.6	0.07	.....	0.07	Auroral streamers.
10	29.778	73.2	63.5	.73	4.0	5.6	Cu. St.	84.5	62.0	S. 2.0	0.02	.....	0.02	
11	30.018	58.1	49.1	.72	2.0	3.6	Cu. St.	71.1	54.0	E.N.E. 2.6	0.02	.....	0.02	Auroral streamers.
12	29.976	64.5	50.9	.64	2.5	2.6	Cu.	76.4	51.0	S.E. 2.3	.....	.....	.....	Fog early a. m., auroral str's
13	29.807	64.3	60.6	.89	9.0	10.0	Nimb.	71.2	61.5	N.N.E. 3.0	0.04	.....	0.04	
14	30.055	61.3	51.6	.70	10.0	10.0	Cu. St.	67.0	58.0	N. 2.3	0.99	.....	0.99	
15	30.119	64.3	48.3	.56	5.0	5.6	Cu. St.	72.0	56.0	W.N.W. 1.6	Inap.	.....	Inap.	
16	30.086	68.8	53.8	.59	4.0	5.3	Cir. St.	77.8	56.2	S.W. 1.3	.....	.....	.....	
17	29.905	69.3	56.7	.67	3.5	1.6	Strat.	79.2	59.2	S.W. 1.6	.....	.....	.....	Lightning in N.
18	29.766	67.2	60.0	.79	7.0	9.3	Cu. St.	72.1	62.0	S.S.W. 1.0	0.26	.....	0.26	Distant Thunder in S.
19	29.932	68.7	60.8	.77	4.5	9.0	Cu. St.	76.4	61.1	E.N.E. 1.6	0.02	.....	0.02	
20	29.891	69.3	64.4	.87	10.0	9.0	Nimb.	75.4	64.0	S. 2.6	0.28	.....	0.28	Thunderstorm.
21	29.912	73.8	61.8	.70	4.5	5.6	Cu. St.	80.3	66.5	S.W. 1.3	0.02	.....	0.02	
22	29.939	70.6	57.9	.66	3.5	1.0	Cir. St.	80.4	61.5	W.S.W. 1.0	.....	.....	.....	Auroral light at midnight.
23	29.973	72.9	63.0	.75	2.5	5.6	Cu. St.	81.5	59.4	N.N.E. 2.0	.....	.....	.....	
24	29.806	68.7	65.3	.93	4.0	10.0	Cu. St.	75.4	60.5	S. 1.0	1.25	.....	1.25	
25	29.622	68.7	63.2	.82	10.0	10.0	Cu. St.	75.1	61.4	E.S.E. 1.3	0.67	.....	0.67	Dist. lightning in N. in ev'g.
26	29.714	68.8	55.9	.66	3.0	5.3	Cu. St.	76.7	63.4	N. W. 2.6	0.08	.....	0.08	
27	29.767	65.9	54.3	.70	9.0	5.3	Nimb.	72.4	57.9	N. W. 1.3	.....	.....	.....	Thunderstorm at 7 p. m.
28	29.751	64.0	52.5	.76	7.0	9.0	Nimb.	66.5	56.0	W.S.W. 3.3	0.07	.....	0.07	Rain in showers.
29	29.836	64.4	54.3	.71	4.0	6.0	Cu. St.	71.6	56.0	W. 2.3	0.03	.....	0.03	
30	29.752	67.0	52.4	.61	2.5	0.3	Cir.	75.5	56.4	W.S.W. 2.3	.....	.....	.....	
31	29.573	66.0	56.1	.71	4.5	5.0	Cu. St.	73.6	61.0	W. 1.3	0.12	.....	0.12	
S's	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.65	
M's	29.861	68.67	58.18	.718	.....	.....	.....	77.30	60.34	.....	.....	.....	.....	

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT *TORONTO* IN AUGUST, 1860.

Compiled from the Records of the Magnetic Observatory.

Day.	Barometer reduced to 32° Fah.	Temperature of the Air.	Relative Humidity.	Amount of Cloudiness.	Max'm read at 6, A.M. of next day.	Min'm read at 2, P.M. of same day.	Dew Point at 3, P.M.	Wind. General Direction.	Wind. Mean Velocity in Miles per hour.	Rain and Snow in 24 hours, ending at 6 A.M. next day. Rain.	Snow.	Total rain and melted Snow.	Ozone in 24 hours ending 6 A.M. of next day.	GENERAL REMARKS.
	Inches.	°	0—100	0—10	°	°	°			Inch.	Inch.	Inch.		
1	29.7382	59.98	66	3	68.2	48 0	46.0	S. 10° W.	4.90	.....	.....	.....		
2	.7280	62.67	81	3	71.0	49.8	61.5	N. 81 E.	4.16	.....	.....	.....		
3	.5290	65.08	87	9	68.5	60.0	59.5	S. 25 E.	4.58	0.125	.....	.....		
4	.5332	71.85	70	3	83.2	62.8	56.0	N. 74 W.	8.85	.....	.....	.....		Dense fog 6 a. m.
5	.....	Sun	day	.....	73.8	59.8	.....	N. 81 E.	4.62	.....	.....	.....		
6	.6058	67.83	82	1	75.4	58.5	65.5	S. 88 E.	2.36	.....	.....	.....		Auror'l light and streamers.
7	.4640	73.82	84	8	84.6	65.2	64.9	N. 74 W.	4.39	Inap.	.....	.....		Thunderstorm during ev'ng.
8	.4555	72.08	62	3	87.0	67.0	58.0	N. 83 W.	6.16	.265	.....	.....		Auroral lt. and faint stream.
9	.4852	67.87	78	4	76.8	62.1	66.0	S. 43 W.	4.27	.035	.....	.....		Thun.str., a.m.,aur. at night.
10	.5135	65.08	72	7	79.8	57.5	61.5	N. 65 W.	10.41	.....	.....	.....		Auroral light and streamers
11	.6907	58.42	69	1	73.4	45.0	55.0	S. 22 E.	6.09	.....	.....	.....		Do.
12	.....	Sun	day	.....	73.5	49.4	.....	N. 9 W.	6.39	.675	.....	.....		Thunderstorm at night.
13	.5963	57.32	75	6	66.0	53.6	52.0	N. 36 W.	10.28	.185	.....	.....		Auroral light and streamers.
14	.8047	56.47	79	2	64.4	50.0	57.0	N. 21 W.	6.33	.....	.....	.....		Day and night very cool.
15	.8792	59.23	76	3	67.6	48.0	55.0	S. 18 E.	4.49	.....	.....	.....		
16	.7802	60.07	78	6	68.0	51.0	56.0	S. 68 E.	4.34	.....	.....	.....		
17	.6035	66.03	73	5	74.5	53.5	55.5	N. 82 W.	3.93	.127	.....	.....		Severe th. storm dur. night.
18	.4990	68.73	75	3	78.0	61.2	66.5	N. 47 W.	5.53	.....	.....	.....		Auroral light and streamers.
19	.....	Sun	day	.....	75.4	59.2	.....	S. 70 W.	3.01	.303	.....	.....		
20	.5760	68.85	79	7	80.6	64.8	70.0	N. 85 W.	4.20	.....	.....	.....		Very heavy thunderstorm [all night.
21	.6607	67.47	79	6	75.5	59.2	64.0	S. 86 W.	4.66	.....	.....	.....		
22	.6705	65.98	71	1	73.0	56.8	53.0	N. 79 E.	4.66	.....	.....	.....		Faint Aurora.
23	.5327	71.02	80	6	77.6	61.2	68.0	N. 71 E.	6.37	.890	.....	.....		
24	.4223	66.08	87	8	73.2	62.0	66.0	N. 15 W.	4.94	.350	.....	.....		
25	.4087	64.80	78	8	71.8	61.6	61.0	N. 53 W.	11.67	.....	.....	.....		Most severe storm of season, hail of large size mingled with rain.
26	.....	Sun	day	.....	73.0	53.8	.....	N. 50 W.	4.55	Inap.	.....	.....		
27	.4997	58.80	74	3	68.4	54.0	49.0	N. 81 W.	9.20	.062	.....	.....		
28	.6032	56.67	67	2	67.0	46.8	52.0	N. 53 W.	4.13	.....	.....	.....		
29	.6482	60.58	68	1	69.5	52.0	55.0	S. 20 W.	4.26	.....	.....	.....		
30	.4007	64.83	79	4	73.4	40.5	63.0	S. 49 W.	7.82	.375	.....	.....		Heavy thun. storm in ev'ng.
31	.3992	62.78	72	4	73.5	57.0	50.0	N. 63 W.	8.29	.013	.....	.....		
S's	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.495	.....	.....		
M's	29.5825	64°.46	76	4	73°.73	56°.27	58°.71	N. 70° W.	5.80	.....	.....	.....		