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THE

BRITISH AMERICAN JOURNAL.

ORIGINAL COMMUNICATIONS.

MEDICAL DEPARTMENT.

ART. XV.—*A case of Dislocation of the Femur downwards and forwards, or under the arch of the Pubes.* By EDWARD W. HODDER, M.D., F.R.C.S.L. President of the Medical Board of Upper Canada. Surgeon to the Toronto Hospital, &c., &c.

Read before the Medico-Chirurgical Society of Toronto.

Michael Cambridge, aged 22, a well developed, muscular man, about 5 feet 9 inches in height, was admitted into the Toronto General Hospital, January 15, 1855.

He states that he is a laborer employed on the rail-road works in the neighbourhood of Queen's wharf. At about 6 p. m., this evening, whilst engaged in excavating a bank of earth it suddenly gave way, a large quantity falling upon him, first striking him on the shoulders by which he was knocked down, and a much greater quantity afterwards falling upon his loins and upper part of the thigh whilst he was attempting to escape.

He was brought to the Hospital at about 7 p. m.. On examination a wound about an inch in length passed obliquely through the supercilium towards the inner canthus of the right eye, but which only involved the integument. He complains of great pain in the right thigh and in the region of the right hip joint. The singular position of the limb at once attracted my attention, and on making a very careful examination, it was found that the head of the femur had been thrown downwards and inwards, completely under the arch of the pubes, the neck of the bone resting on the ramus of the pubis immediately below the origin of the gracilis muscle, and either between or through the origins of the adductors.

When supported in the upright position, the thigh formed very nearly a right angle with the trunk, the knee being as high as the head of the bone, the leg was at a right angle with the thigh, the knee turned very much outwards, the toes turned slightly outwards and pointed downwards. When he was allowed to place himself in the position which gave him the least pain whilst standing on

the sound limb, the trunk became much bent forward, the knee consequently less raised. The trochanter major could scarcely be felt, but was anterior and much below its normal position, and thrown inwards towards the mesian line of the body. One of the most striking symptoms in the case, was a remarkable concavity below the dorsum ilii, caused by the absence of the great trochanter, and by the gluteus maximus, as well as the medius and minimus, being put so much upon the stretch as to render the bodies of these muscles quite flat, instead of presenting their ordinary rounded form.

On examining the perineum and tracing the ramus of the ischium from the tuberosity upwards, a firm round projection could be felt at about the junction of the ischium and pubis. This projection was anterior to and rested upon the ramus of the ischium, and it was found to move when the leg was rotated together with the trochanter. The Psoas and Iliacus muscles could also be felt very much upon the stretch.

When the patient was examined in the recumbent position the thigh was less flexed upon the abdomen, but it was more turned outwards than in the upright position. On measuring from the anterior superior spinous process of the ilium to the upper edge of the patella, the length of the two limbs was nearly the same, the injured leg, if anything, being the longest, but the distance from the same point of the ilium to the trochanter on the two sides, showed a remarkable difference the trochanter of the injured limb being fully two inches further removed, and to the inner and under side.

As the pullies belonging to the Hospital had been lent to a practitioner in the country, and could not be obtained for some time, it was decided to wait until the following morning before any attempt was made at reduction. The patient was therefore placed in bed and the injured limb supported by pillows.

January 16, 1855, noon. The patient showed little or no signs of constitutional disturbance, the symptoms remained the same, except that he complained of more stiffness and the limb was far less moveable than on the preceding evening.

The reduction having been determined upon, the man was placed upon a table in the recumbent position; chloroform was then administered until perfect anasthesia was produced. A strong belt was passed round the pelvis, on the same plane, as the body, for counter extension, and the pullies were applied at nearly right angles to the vertical plane of the body, but a little inclined downwards, a round towel was also used for the purpose of dislodging the head of the femur from under the ramus of the ischium and pubis. Extension was now commenced and cautiously continued for some minutes, the muscles being extremely tense and rigid.

The ankle was grasped by an assistant and the leg drawn towards the mesian plane. After the extension had been continued for about 15 or 20 minutes, and the round towel used to dislodge the head of the bone, a hard grating sound was heard, followed by an indistinct snap. The force was immediately relaxed and a careful examination again made, when it was found that the head of the femur now no longer occupied the former situation under the pubes, but that the accident had been converted into a dislocation into the Foramen Ovale presenting all the characteristics.

The pelvis strap and pullies were again read justed, but the direction of the force was now more upwards and outwards, the ankle held by the assistant was drawn under the other and at the same time rotated, and in a few minutes the head of the bone was felt to move, and almost immediately afterwards slipped into the cotyloid cavity, with the same grating sound as when it was dislodged from under the arch of the pubes. This sound more resembled that produced by the laceration of muscular and tendinous structures than the clear snap generally heard on the reduction of a dislocated bone.

The force required was considerable, but the patient was well under the influence of chloroform during the whole time, except at the close; and when the luxation was reduced he immediately exclaimed that the bone was in its right place and expressed himself greatly relieved.

His legs were bound together and he was placed in bed. From this time until the 5th day of February not a single bad symptom presented itself; he gradually recovered the use of his limb, and on the day of his discharge (5th, Feb.) he was able to walk very well with the use of a stick.

At the time that this case occurred and for some years afterwards I believed this accident to have been unique, as no work that I had consulted contained an account of a similar displacement of the femur. In Dr. Frank Hamilton's work on Fractures and Dislocations, page 661, will be found two cases, one of which, not only in its symptoms, but in the manner in which the injury was received, is singularly alike. We are bound therefore, to admit, that the head of the femur may be thrown occasionally into this unusual position, and it must, for the future, be included amongst the rare accidents to which this joint is liable.

Toronto, C. W., February, 1861.

ART. XVI.—*Vaginal Hysterotomy, Occlusion of the Os Uteri.* By JOHN R. DICKSON, M.D., Professor of Surgery, University of Queen's College, Kingston, C. W., Surgeon to the Kingston General Hospital.

Mary Buckley, pregnant with her first child, was admitted into the Kingston General Hospital, on Saturday, 12th April, 1856, at 5 o'clock in the afternoon, being then in labour.

The pains were frequent and strong. On making an examination two bands were discovered in the vagina; one near the entrance was firm and unyielding, occupying three fourths the diameter of the canal; the other, one and a half inch more internally, was neither so extensive nor firm as the outer one.

The Os Uteri was completely occluded, so that it could not be discovered with the finger. As the case was in charge of three students, they now sent for Professors Yates and Fowler, who, after making examinations, sent for me. Having instituted a minute examination, I thought I discovered a furrow in the uterine wall, into which I made an unsuccessful attempt to introduce a stiff bougie.

The unanimous opinion now entertained, was that, as the woman was not married, an attempt had been made to induce abortion, by the introduction of

some foreign body into the genitals, which had resulted in the formation of these firm bands, and the occlusion of the uterine os by the adhesive inflammation that had ensued. No clue whatever to the history of the case could be obtained from the patient.

After being seventeen hours in labour, and febrile symptoms beginning to be developed, it was decided that the outer band should be divided, and an artificial os formed.

Having brought the patient under the influence of chloroform, I divided the external band two thirds of its extent, and then introduced a speculum, so that the students might have an opportunity of *seeing* the condition of the parts.

Having withdrawn the speculum, I introduced the fore and middle fingers of the left hand into the vagina, as a guide to a guarded bistouric, and made an incision about an inch in extent, in the direction where I supposed the os should have been. Into this I insinuated first one, then two, and ultimately three fingers, and thus gently enlarged the opening.

As the patient was now returning to consciousness, an opiate was administered, and she was left in charge of the students, with instructions to send for the medical attendants at once, should hæmorrhage or any alarming symptoms ensue.

At 8 o'clock in the evening Professors Stewart, Yates, Fowler, and myself were summoned to attend.

As the woman was now 27 hours in labour and much exhausted, it was determined to expedite the delivery. Although the pains had been strong, yet, as there was some contraction at the brim of the pelvis, which, with the occluded os, prevented the head advancing, it was resolved to deliver by version, as the fœtus, presenting feet foremost, would act as a good wedge to gradually dilate the os. As the fœtus however, was found to be dead, and the contracted brim offered a good deal of obstruction to the delivery, the fœtal head was diminished in size by craniotomy, after which the body was delivered.

The case progressed favourably, and the woman was discharged from Hospital on the 17th of June, having completely recovered from the effects of the labour and the operation.

KINGSTON, C. W., Feb'y 22nd, 1861.

ART. XVII.—*Will a Child born after the mother has had Small Pox, and contracted after she has conceived, be liable to contract the disease?* by A. H. DAVID, M.D., L.R.C.S.E., &c.

As an addition to the conclusion you arrive at in your paper in the last No. of the B. A. J. on the question "Will a child born after the mother has had small pox and contracted after she has conceived, be liable to contract the disease?" I will mention a case somewhat similar to the one you relate, and which corroborates the opinion you express relative to the protective influence the infant derives from the mother going through small pox, without however the child showing any evidence of having had the disease.

Mrs. K., a young English lady only a few months in Montreal, contracted small

pox from her brother, who had taken it from a passenger on board of one of the Quebec boats. So mild was it, that he did not know what the disease was till I accidentally saw him and told him. He had not been out of the house for some days but was up and dressed. In fact his was without exception the mildest case I have ever seen. Some days after he got well and was out, I was called to see Mrs. K. on the 13th October, 1857. She then complained of having taken cold as she thought, and as she was then eight months pregnant I merely prescribed a simple diaphoretic. The next day when I saw her, she was in bed, and a slight eruption appeared to be coming out: the following day the 15th, I pronounced the disease to be small pox: she became delirious and very ill, so much so that I informed her husband, that I would not be surprised if she should miscarry, and that probably the child would be dead born, although her term of gestation was nearly ended. Dr. Campbell of Great St. James street saw her with me on the morning of the 17th, and corroborated what I had said. However, she went on through the disease favourably enough, although the attack was a severe one, until the night of the 26th, the 12th day of the eruption, when labor came on, and I delivered her of a fine healthy girl, without a spot or a mark of any sort on its body, much I must say to my surprise, as well as to the surprise of the nurse and friends. The lady made a rapid and excellent recovery, and as she had to accompany her husband to England in the February following, she requested me to vaccinate her baby. I told her I did not think it was requisite to do so, but she insisted upon it, and I vaccinated it in January when it was three months old, but the operation failed. I then vaccinated it again about ten days later, but with no better success, and I have since learned that she has had it tried again in England with a like result. I can answer for the genuineness of the vaccine matter I used, as it took well with other children, and I have no reason to doubt that the same may be said of that used by the medical gentleman in England who tried to vaccinate it the third time.

I may here state that Mrs. K. had been vaccinated when a child and the two marks on her arm were very distinct.

I will now explain the reason why I was surprised at the infant's being born alive and without a spot or mark of any kind, but with as fine white or roseate skin as any child could have, and it is this, that in all the cases of small pox in pregnant women that I have met with during the course of a large midwifery practice, both in the country and in this city, they all miscarried; and the children, with this single exception, were still born, and all were covered with the eruption. The cases you have published, now amounting to three—yours, Dr. Stranaghan's, and this one of mine, may become of importance on the question of vaccination and re-vaccination, of which we have still a great deal to learn.

Montreal, February 20th, 1860.

REVIEW DEPARTMENT.

ART. XVIII—.—*The Ear in Health and Disease.* By WILLIAM HARVEY, F. R. C. S.

In a former number of this Journal we introduced to the notice of our readers, the valuable practical treatise of Mr. Toynbee, and now we have the pleasure of directing attention to that of Mr. Harvey, and perhaps we shall do more to show the merits of the work by a few extracts than by indulging in any eulogiums of our own.

Mr. Harvey's treatise is a small and cheap work, but a very useful one. Each subject is discussed in a succinct manner and the treatment recommended is highly judicious. We shall quote from the chapter on Diseases of the Meatus Externus, "*Mode of Examination.* In order to understand the morbid condition of the Meatus Externus, it is necessary that the practitioner should familiarize himself with its appearance in health. It will have been seen that the canal is by no means straight, and therefore, in order to its effectual examination a speculum is obviously necessary; and the knowledge which the practitioner will acquire of the morbid appearances of the auditory canal will much depend upon the kind of speculum which he employs," p. 51.

The author recommends a bivalved instrument, "with a disc of at least one inch and a half in diameter and the other extremity small enough when closed to enter a meatus very much contracted from disease or any other cause."

"In using the instrument it must be recollected that the canal is divided into two distinct portions, the external being cartilaginous and therefore elastic, and the internal osseous and therefore undilatable." The great error made by some instrument makers is owing to their ignorance of this anatomical point. We ourselves procured an Ear speculum from a famous instrument maker in London, many years ago, and found it was made of three blades which could be opened by a screw in the same manner, and upon the same principle as the three bladed anal or vaginal speculum. Need we say it has lain in a drawer ever since. Having introduced the speculum, the light being favorable, the surgeon should next look for the 'ceruminous circle,' consisting of a circle of fine hairs, covered in health by a sort of glutinous dew. This is the cerumen, which should be of a yellowish brown colour, and of the consistence of honey; of great tenacity, but varying in this respect according to the healthy or diseased condition of the organ, exposure to the atmosphere, and the age of the individual."

"The presence of this ceruminous circle is diagnostic of a healthy condition of the meatus externus; if deafness coexist with a normal condition of this circle, the probability is, that the cause will be found elsewhere, and probably in the middle ear, from some disordered condition of the parts about the fauces. On the other hand, if the cerumen instead of being arranged in a circle, be distributed in patches, or instead of being of the consistence and appearance of honey, be dried and scaly, then, in either case, it is to be presumed that the

membrane lining the meatus is in an unhealthy condition, and requires local as well as general treatment. This yellow circular fringe is in high perfection in those persons whose hearing is very acute."

We pass over our author's remarks upon the diseases of the meatus; (they are well worth perusal) and proceed to quote his remarks upon syringing the meatus. "An auricular syringe for this purpose ought to be made of silver, ivory or brass—(why not pewter?)—the barrel or body should be about four inches in length, and three quarters of an inch in thickness with a nozzle of about two inches in length, of seven-eighths of a line in diameter at the extremity; it should contain about two ounces of water, which should always be used warm."

Mr. Harvey warns his readers against various accidents that may follow the injudicious use of the syringe.

The cases in which puncturing the membrana tympani would be advisable are pointed out and the following directions are given for the performance of the operation "which requires very delicate manipulation; there are three indications to be observed:—1. To avoid the manubrium of the malleus, and for this purpose the anterior and inferior part of the membrana tympani should be selected. 2. To make such an opening as shall prove sufficient and permanent, neither so large as to interfere perceptibly with the vibrations of the membrane, nor so small as to heal immediately, there being always a tendency in incised wounds of this membrane to close rapidly. 3. That no mischief should be done."

The author prefers a stilette with a transverse guard, with which to operate. The operation may be required for:—1. Obstruction of the Eustachian tube. 2. Accumulation of pus in the tympanum. 3. Thickening of the membrana tympani. 4. There is likewise a condition of the parts in which, although an opening already exists in the membrane with obstinate otorrhœa, the author has found great advantage from introducing the stilette through a small aperture in the membrane, so as to give free exit to the pus, which appears to have issued from a kind of fistulous cavity between the layers of the membrane." In several such cases the membrane has rapidly healed after the incision, the discharge having previously ceased. p. 179.

There is an interesting chapter on the artificial membrana tympani, to which our space will barely allow us to allude, and in conclusion we beg to recommend this valuable little treatise to the busy practitioner whose arduous duties prevent him studying the larger and more elaborate work of Mr. Toynbee on the same subject.

ART. XIX.—*Annual Report of the Normal, Model, Grammar, and Common Schools in Upper Canada for the year* 1859.

In our number of January last we had the pleasure of noticing the progress of education in Lower Canada as shewn by the Annual Report of our Superintendent, Hon. P. J. O. Chauveau. Since then we have received the able and elaborate document designated above, and we have equal satisfaction in acknow-

ledging the interest with which we have perused its varied and valuable contents. The labours of the Rev. Dr. Ryerson in the cause of education in Western Canada are known far and near. The Doctor is a man of commanding talent, and of rare courage and perseverance. It may be said of him that he has fought every inch of ground to his present lofty eminence; and certainly his countrymen,—for he is a Canadian,—cannot feel otherwise than rejoiced at his success, seeing that his triumph is theirs, the result of his labours being the establishment of a system of education for their country of the highest value and renown. We use the latter term advisedly, for it has come to our knowledge that not only in the United States, and the Sister Colonies, but also in Great Britain have the educational institutions of Western Canada, as founded and fostered by Doctor Ryerson, been regarded not merely as a success, but as a credit to our times.

The report before us shows no diminution in the labours of the worthy superintendent. We see in it one hundred and seventy-three pages of closely printed matter embracing first, a general report; second a statiscal report; then, miscellaneous papers; and finally, appendices of a valuable nature. Table 8 (page 142) gives an educational summary for the year 1859, shewing the number of common schools to be 3,953, increase over the previous year 87; number of common school pupils, 301,592, increase 7,909; number of Grammar schools 81, increase 6; other educational institutions, including normal, model, and model grammar schools, 338, increase 21; pupils, 8273, increase 566. Total number of educational institutions, 4372; total number of pupils attending them, 314,246. Amount expended for educational purposes during 1859, $1,380,582. In reference to this expenditure it is stated, (page 13) "that little more than one-"tenth of the sums of money mentioned have been provided by the Legislature "from endowments and grants. The Legislature imposes no tax for any edu-"cational purpose. All the rest of the large sums mentioned are provided by "voluntary local taxation, and other exertions in each municipality;" a feature in the system highly honorable to Upper Canada.

Were we to consult our individual tastes much more would be extracted from this most excellent report, but the amount of space at our command forbids further indulgence of this kind. Let us, however, say to all into whose hands there port may come, to examine and study it as a document from which both pleasure and profit is to be derived.

PERISCOPIC DEPARTMENT.

MEDICINE.

HISTORY OF THE CHOLERA AT MONTREAL.

Continued from page 66.—Conclusion.

Query XII.—What were the most common exciting causes? What do you think of the expediency of eating garden vegetables and ripe fruit during the prevalence of the epidemic?

Answer.—The exciting causes were all those which produced derangement of the digestive organs, more particularly intemperance or excess in eating. Any other cause producing diarrhœa, as cold, suppressed perspiration, or affections of mind, was also an exciting cause. As to the expediency of eating or abstaining from vegetables or ripe fruits, much must depend on the state of the digestive organs in the individual. As a general rule, I believe it would be right to abstain from them on account of their liability to fermentation, and the consequent production of acidity, flatulence, and other effects of indigestion. Where, however, the digestive organs are in good order, and not previously weakened by excess or former derangement, a moderate use of these articles I should not believe productive of evil.'

Query XIII.—How far do you think that local exhalations from filth or other sources, contribute to the intensity of the epidemic poison?

Answer.—'The effects of locality in augmenting the deadly effects of the atmospheric influence, have been strongly exemplified in numerous situations. Certain houses have through the whole epidemic been noted for the continual recurrence of cases. A very strong proof of this kind occurred among the troops in garrison in this city. The soldiers were early attacked, and a large number died. Dr. Stewart, the senior medical officer, recommended the removal of the troops out of barracks into tents, pitched on the Island of St. Helen's, a fine airy situation opposite the town. No case afterwards occurred for many weeks, and the soldier then attacked had come over to town and became intoxicated. The artillery soldiers, previously stationed on the island, remained free from the disease during the time it raged among the troops of the line in Montreal; and when the latter were removed to the same island, the precautionary measure of keeping the two descriptions of force entirely separate was adopted. No artillery man was allowed to go over to town, except on necessary duties. In consequence, apparently, of these regulations, the artillery remained free from cholera; and only one case occurred among the whole force, in a man, who, without permission, came over, and is known to have visited a house in which a cholera patient was lying ill, and in which also four deaths occurred. He also became intoxicated before he returned to the island. He was confined for his misbehaviour, and the next day he was attacked with cholera and died. Before the troops were removed to the island, the women and children had been sent to the barracks at Laprairie. Several fatal cases having there taken place, they were brought down to St. Helen's, and the disease soon disappeared from among them. I have been favoured by Dr. Stewart with an interesting detail of the circumstances in a letter, a copy of which I transmit.

'The following fact is of importance in connection with this subject, and bears an analogy to similar ones that have been published in descriptions of the cholera of India. It is contained in a letter from Charles J. Forbes, Esq., and the following are his own words: "A singular feature presented itself at St. Andrew's, where the mortality was proportionably great with any part of Canada; viz. that all the deaths occurred on the west, and not one on the east side of the North River, notwithstanding that the one is equally populous with the other."

Dr. Stewart's Letter to Dr. Holmes.

My Dear Sir,—The following memorandum contains some of the leading facts relating to cholera in the garrison here. The disease appeared in the barracks in Montreal on the 12th of June. I arrived at the Hospital about 9 o'clock, A. M. on the 13th. Up to this time the admissions amounted to 75 soldiers, 2 civilians of the ordnance, 7 women and 2 children—in all 86 (the admissions during the 48 hours preceding, amounting to 49).

Various reasons not now to be stated, led to an immediate determination to remove the troops from the barracks in Montreal, and encampment on the island of St. Helen's was finally resolved on. The movement was effected on the 19th, during which day, principally before or while the change was taking place, nine cases were admitted. On the 20th of June, one case, and no other until the arrival of the detachment from

Laprairie. This detachment, including all the women and children, had been sent there before my arrival, and about the 14th, in order to relieve the barracks, there being no medical officer there, the detachment was placed under the care of a civil practitioner. The prevailing malady appeared among them; ten men and three women were reported to have been seized, and eight men and one woman died in a few days. Immediate measures were taken for their removal to St. Helen's, and they were formed into a separate camp (in which they continued) on the 24th of June. From this camp a woman was admitted on the 28th of June, a private on the 4th of July, and a second woman on the 6th of July. From that time up to the present date, the actual and confirmed seizures admitted from the island have only been three, viz., one gunner, royal artillery, one corporal, and one private of the twenty-fourth regiment. The first of these, a man of rather weak intellect and dissipated habits, made his escape during the night in a canoe from the island to Montreal, where he was found next morning, by some of the men of his company, in a state of intoxication. For this offence, he was put into the guard-house. Symptoms of cholera soon appeared—the attack was immediately reported—collapse set in rapidly, and he died in about six hours.

The second, a corporal, a man of excellent character, and a fine soldier, was seized with premonitory symptoms while on guard in the city of Montreal. These, from mistaken views, he unfortunately concealed or neglected for between thirty-six and forty-eight hours. He died on the third day.

The third case, a healthy man, and subject to bowel complaints, had also been on guard in town, the day before he was attacked. The premonitory symptoms had been of some standing; the choleric symptoms proved obstinate, particularly the discharges by stool. They were at length removed; but a low febrile state followed, from which it was extremely doubtful whether he would recover for the space of twenty days.

The gunner above mentioned was the only man, of a company of the royal artillery stationed in barracks on the island of St. Helen's, attacked with cholera. Non-intercourse was observed as far as possible between this company and the town, as also between it and the troops encamped on the island during the greater part of the time. As far as the necessary duties to be performed by guard in the city, and the procuring of supplies, would admit of, the intercourse was likewise restricted between the people in the camp and Montreal.

The number of persons belonging to the garrison (men, women and children), treated at Montreal from 12th June to 26th September, would appear by the returns to be 106—deaths, 39. Of these, 35 took place between the 12th and 24th June. In this statement neither the attacks or casualities which occurred at out posts are included, nor are incipient or premonitory symptoms noticed; many cases of diarrhœa, with or without vomiting, and spasms, having been treated during the prevalence of the epidemic, not a few of which there is reason to believe would have terminated in confirmed cholera.

Faithfully yours, ART. STEWART.

Query XIV.—Was convalescence slowly progressive when patients were recovered from advanced stages of the disease, and were they liable to relapses?

Answer.—Convalescence so far as my own observation extended, was always slow. Patients passed into a state resembling typhus, but still sufficiently distinct. The choleric appearance and symptoms seldom disappeared at once, but the hands would often remain cold for several days, the upturning of the eyes would continue, with more or less tendency to coma; the stomach would remain irritable; thirst considerable; the sunken and dark appearance of the eyes would remain for many days, and I have recognized a cholera case eight days and even longer after the patient had been removed from the cholera hospital, into the hospital for typhus patients. The disease succeeding cholera, though typhoid, is by no means the same with common typhus. The tongue indeed becomes dry and brown, but it is not the dry, hard, and cracked tongue of typhus; the pulse is slower and surface cooler; the affection of the head is less marked. The patient indeed often lies in a drowsy stupor, with his eyes half closed, and balls

turned upwards, with more or less wandering of the mind, but is sensible till coma comes on previous to dissolution. The time occupied in convalescence varied from one to two or three weeks, and generally much debility remained for some time longer. I have not met with any patients who relapsed from the typhoid state into cholera. When the disease proved fatal, it was generally with symptoms of affection of the brain, becoming at last perfect coma. Cholera, however, will certainly attack a patient several times, and even severely. A smart attack, therefore, does not secure the patient from subsequent ones.

Query XV.—Were congestion and inflammation of the brain frequent sequelæ of the disease, and what other consecutive diseases did you most frequently observe, and what your treatment of the secondary affections?

Answer.—I refer you, as far as regards this head, to the answer to the last query; affections of the bronchi sometimes supervened, marked by cough. Oppression and inflammatory affection of the bowels, denoted by pain on pressure, was not unfrequent. The treatment consisted chiefly in calomel and purgatives, saline or oily; blisters to relieve pain or stupor; sinapisms occasionally; camphor and opium, with saline diaphoretics. Calomel, carried to the extent of slight salivation, was always serviceable.

Query XVI.—What proportion of the subjects of cholera were intemperate?

Answer.—'This query I cannot answer directly. It accords with my belief, however, that a large majority was addicted to the inordinate use of alcoholic liquors. It has been stated, on the best authority, that out of 108 persons composing the Young Men's Temperance Society in this city, three only had been fatally affected by cholera; a proportion far inferior to that of the community in general.

'From the Secretary of the Montreal Temperance Society I have procured the following information. In this Society 207 members remained in the city, of whom only one had died of cholera; another had been attacked but recovered. Three, who had ceased to be members in consequence of violating the Constitution, had *all* died; three others had died during the time, one of consumption—one of a wound received on board of a steamboat—and one of a fall down stairs, by which his spine was injured. Some others had premonitory symptoms, and some badly, but not decided cholera. In addition a considerable number of new members had been added, all of whom were here during the malady; making a total of at least 230, out of whom but the deaths above stated had taken place.'—The Society is much more numerous, but only those are included in the above statement who remained exposed in the city or elsewhere during the epidemic.

'There is also a Total Abstinence Society in this city (from all vinous and fermented liquors), amounting in number to 70 persons; not one of whom has been attacked by cholera.

Query XVII.—Were those enfeebled by disease, whose habits were prudent, more frequently the subjects of cholera than the robust?

Answer.—'It does not appear to me that those in delicate health, and who used the additional precautions rendered necessary by this state, were more liable to the disease than the robust. From this delicacy it would necessarily follow, however, that greater precautions were required in the former than in the latter.'

Query XVIII.—Were the greater proportion of patients male or female? and were young children affected?

Answer.—'Perhaps a greater number of males was attacked, though it does not appear to me there was a very great disparity. Children of all ages were affected. In the younger ones, cramps were scarcely ever present.

Query XIX.—Have you remarked that the disease has been influenced by changes in the weather, or variations of temperature?

Answer.—'I have not been able satisfactorily to make out a connection between such changes, and the increase or diminution in the number of persons attacked. It is, however, certain, that after the disease had abated so much in this city as to produce san-

guine hopes of its being about to leave us, the cases a second time increased to a large amount; and this increase took place after a severe storm, followed by wet weather.

'In confirmation of this, I add that the storm alluded to, which was attended with much thunder and lightning, took place on Sunday evening, July 29th, and the following are the reports of the deaths by the Board of Health, for the days immediately previous and subsequent to it.*

'Deaths from 25th to 26th, at 8 P. M 15
27th 18
28th 23
29th 10
30th 12
31st 14
August 1st 27
2nd ..... 25'

Query XX.—What number of deaths has occurred at Montreal from cholera asphyxia?

Answer.—'In reply I send you an extract from the Reports of the Board of Health, which gives the number of cases reported, and of burials of cholera during the epidemic. The largest amount of burials occurred on June 19th, when no less than 149 interments took place.

Digest of Reports issued by the Board of Health of Montreal, arranged by weeks, ending on Saturdays, inclusive, at 8 P. M.

Week ending	Cases.	Deaths.	Total cases.	Total deaths.
June 16			1705	261
23	1580	632	3289	893
30	234	166	3523	1059
July 7	124	94	3647	1153
14	75	61	3722	1214
21	96	70	3818	1284
28	160	131	3978	1415
Augnst..... 4	180	136	4158	1551
11	88	101	4246	1652
18	54	79	4300	1731
25	48	68	4348	1799
September 1	37	54	4385	1853
8	10	32	4395	1885
15	15	13	4419	1898
22	10	6	4420	1904

'Likewise a statement published in the newspaper called *L'ami du Peuple*, and which may be considered very correct. In the Catholic burying ground, from the 13th of June to the 13th of September, there have been interred—

	Canadians.	Europeans.	Total.
Males	400	307	707
Females	330	252	582
Infants under 7	316	252	568
Unknown			28
			1835

In the Protestant ground, from the 11th of June to the 19th of September, of cholera 617
Of other diseases ..... 538 = 1155
At the Plains of St. Anne, all Europeans (most of them Catholics), and all of cholera 72

Grand total of burials 3062

N. B. To Oct. 1, the total in Catholic ground was 2042.

* This fact affords another instance of the error of public opinion, that thunder storms are followed by a decline of the pestilence.

'I would call your attention in reference to the mortality in Montreal, to the remarks contained in my reply to your fourth query, in which I have stated that from the alarm that existed during the first days, many cases had been reported as cholera, which never would have become so, even had they been let alone. The total number of cases reported in the first week, I sincerely believe to have been greatly exaggerated from this cause, and from the want of discrimination in not distinguishing real cholera from symptoms purely the effect of agitation and fear. That I am not wrong in this assumption will appear evident to you by inspecting the table of cases and deaths. During the first week the deaths were only 261 to 1709 cases, or between one-sixth and one-seventh. During the second, there were 632 deaths to 1580 cases, or between one-half and one-third; and the deaths subsequently always bore a very large proportion to the cases reported, and frequently exceeded them. With this deduction, which I conceive perfectly justifiable, from the total number of cases, the amount of deaths from cholera will approach the frightful sum of nearly every second person attacked. In mitigation, however, it will be necessary to bear in mind that a large number of cases were not reported at all, being abandoned to Nature alone, or seen only by irregular practitioners who did not dare to report. It is impossible to arrive at more than an approach to accuracy, in giving a statement of the number attacked and of the mortality; nor can even the registers of the interments be depended on, for many cases would, from the ignorance of the attendants, be deemed cholera which were not; and moreover as coffins were furnished gratis to the poor, who died of the disease, this produced a motive to falsify the nature of the disease, which must have been of considerable force among a moneyless set of people. On the other hand, as the regulations of the Board of Health, and of the Catholic Clergy, forbade the keeping of bodies dead of cholera beyond a few hours, and denied them admission into the churches for the purpose of having the regular services for the dead performed over them, this was a strong motive with affectionate friends to assert the non-existence of cholera in any particular individual; added to which, a certain dislike to have it supposed that a friend had taken the cholera was very evident.

'Whether these different motives were sufficient to counterbalance each other, cannot be known, and there must always remain a degree of doubt as to the accuracy of the statements promulgated of the number of cases and of deaths from cholera.

'The last census (of 1831) gave as the population of Montreal city, 27,297; parish, 31,783. To these must be added the emigrants forced to sojourn among us for many weeks, the number of whom can be only conjectural.'

Some other interesting details are contained in Dr. Holmes's reply to my inquiries; but it is not improbable that the limits of your Journal may oblige you to exclude a part of what I have here communicated.

Respectfully yours, MARTYN PAINE.

New York, Feb. 11, 1833.

ON THE TREATMENT OF TETANUS BY LIQUOR POTASSÆ.

By JOSEPH REID, M. D.

Having lately had under my care a case of tetanus, in which the treatment I adopted proved successful, and feeling that another opportunity may not offer in my practice to test more fully the effects of the same remedy in the same disease, I am anxious that other practitioners may be induced, from a short statement of the case, to try that which I found in this instance to be so highly efficacious. I regret much that I did not take daily notes of the case; but the following brief report will, I trust, be sufficient evidence of the practice and its results.

Mr. S——, aged thirty, of active habits, delicate constitution, and possessing a nervous temperament came under my care June 1, 1860. States that a few days since he was exposed to a cold easterly wind for some hours when driving in an open vehicle;

but that he did not observe any ill effects therefrom, and felt in his usual health until this morning, when he, for the first time, experienced a sense of constriction and tightness in the throat, but which symptoms appeared to diminish until mid-day, when they became suddenly aggravated, causing him serious alarm, and obliging him to desist from business, and seek medical relief. When he visited me, I found him in a state of extreme excitement, and momentary dread of strangulation; he could not swallow the smallest portion of solid food, and when he endeavoured to drink, the act of deglutition was attended with such a sense of suffocation and anxiety, that it was with much difficulty that I could induce him to make the attempt. At this period there were no other symptoms present, so that it was impossible to determine the exact nature of the attack but by degrees the disease became developed; the countenance assumed the tetanic expression; the masseter muscles and those of the cervical region were now firmly contracted, the sterno-cleido mastoid standing out like tense cords; the lower jaw became almost fixed; the tongue could with difficulty be protruded between the incisor teeth, and at times was spasmodically darted forwards, so as to run a danger of severe laceration. The walls of the abdomen likewise became extremely hard and rigid, and much difficulty and distress was experienced in passing urine which could only be voided at long intervals, although a desire to do so was seldom absent. Pain was also complained of, shooting from the ensiform cartilage through the diaphragm towards the vertebral column, and the spasmodic jerks from which the patient suffered were so intense and frequent, as to deprive him of rest both night and day. His bowels were obstinately constipated, and irritability of the stomach, with vomiting, added much to his general distress. His skin was bathed in profuse pespiration. The pulse, which at times was intermittent, was also irregular as to its frequency, an extreme variation often occurring within a few hours.

Such were the symptoms present, and such was the condition of the patient on the eighth day from the commencement of the attack; and as the case appeared to be rapidly going from bad to worse, I thought it necessary to alter the treatment from that which I had been pursuing—namely, mercury, with anodynes and antispasmodics—to what I considered might be attended with more success. I accordingly prescribed liquor potassæ, which I ordered in combination with syrup of poppies and camphor water, after a few doses of which I was much pleased to find a marked improvement in the most urgent of the symptoms, the earliest amendment being a perfect freedom from the difficulty of passing urine. The stomach soon became settled, and capable of retaining nourishment. By degrees the tension of the muscles, and the spasmodic jerkings became diminished. The bowels acted without the assistance of enemata, which were before absolutely necessary, and in every particular, progress towards health followed the employment of this medicine.

Such are the outlines of this case; and I consider it may be satisfactory if I state my reasons for selecting the liquor potassæ. But first I may refer to the very uncertain and scanty information which we derive from pathological appearances, even when such appearances are present; for often the most careful examination fails to discover any alteration of structure which can be looked upon as the effects of tetanus, and tetanus only. No doubt there is sometimes found a vascularity of the mucous membrane of the œsophagus, and of that covering the cardiac orifice of the stomach; at others, there is discovered some effusion within the cranium or spinal canal; but all or any of these are not always present, and are, perhaps, more frequently so after death from other causes. The disease cannot be one of an inflammatory character, for whether it terminates fatally after a few days or some weeks, there is not, as a rule, any change left which can be considered as a product of inflammation, or which, if looked upon as such, bears the least ratio to the severity of the symptoms during life. But this very absence of morbid appearances leads me to suppose that mere functional disturbance in the operation of the nervous and muscular systems may constitute a principal, if not the entire, of the disease. When we remember how intimately incorporated are the

capillary vessels and their contents with the medulla of the nerve and the fibrillæ of the muscle, it is easy to conceive how muscular contraction may follow on any irritation of the nerve-fibre by causing an accumulation of fluid in the vessels of the contracting muscle; and although it may be impossible to define the exact proportion in which the blood, the nerve, and the tonicity of the muscle may be engaged in tetanus, yet it appears to me that the rigidity of the last is different from the contraction which we are accustomed to find in other spasmodic diseases; it seems to resemble more the rigor mortis, or death stiffening—a condition in which the influence of innervation is absent. But superadded to this we observe in tetanus the alternating movements of contraction and relaxation, arising, no doubt, from reflex action operating through the nervous centres. To obtain a less easily excited condition of this system, also a diminution in the tonicity of the muscular fibre, and a decrease in that portion of the blood through whose agency is supplied irritability or vital activity to the nervous and muscular structures, would be to gain a certain control over an exciting cause, and a relaxation in the leading features of the disease; and believing that in liquor potassæ we have a remedy calculated to effect these changes, I prescribed it in the foregoing case, at a time when all the symptoms were so urgent as to afford but slight hopes of recovery; and it is owing to the very rapid improvement which followed on its administration that I feel a further trial of liquor potassæ in tetanus may be attended with like success.—*Lancet.*

MALARIA, OR MIASMA.

In certain places there is diffused through the air an exceedingly minute quantity of a substance which has a powerful effect on the human system, and frequently offers in such districts a serious obstacle to the cultivation of the soil. It is this which gives rise to intermittent fevers and perhaps to maladies of a more malignant character. This substance is found in marshy and low places where animal and vegetable matter of an aqueous character is in a state of decomposition, but the winds which pass over these places transport the malarious effluvia to a distance, and thus render whole tracts of country unhealthy.

The corpuscles of this substance appear to adhere to the molecules of water, and are elevated with the latter by the ascending currents of air to heights which vary in different countries. Around the Pontine marshes, in Italy, the malaria disappears at the height of from seven hundred to one thousand feet, while in South America, according to Humboldt, it is found at an elevation of three thousand feet; usually, however, its effects are exhibited with intensity at a much lower elevation than that first mentioned. It is also observed that humid air, which transports miasma, is deprived of this noxious material in passing through trees, and that in many cases, in the same neighbourhood, a screen of foliage is sufficient to produce a marked difference between two places otherwise similarly situated. Double screens of fine gauze also placed in the windows of sleeping rooms answer a similar purpose, and should be resorted to in all cases as a precaution wherever there is danger of disease from this cause. It is probable that the diffusion of malaria in still air, as in the case of vapour, is exceedingly slow, and hence anything that tends to interrupt the current will much retard its transmission. It is asserted that in some cases near the focus of emanation it is less deleterious than at places at a considerable distance. It would appear from this to ascend vertically with the columns of heated air and to be afterwards wafted horizontally to a distance, and there impinging on the first elevation produces its effects; or perhaps this opinion has arisen from the screening influence of objects near the source.

Miasma in perfectly dry air is in such small quantities as not only to be inaccessible to the investigation of science, but also insufficient seriously to affect human life. It is otherwise, however, in air cooled by the radiation of the evening and night. It appears then to be precipitated into the lower strata of the atmosphere with the mass of humidity

with which it seems to be connected, and when this is evaporated again at sunrise, it carries up with it the miasma in its ascentional movement. At this time it is taken into the system by swallowing, respiration and perhaps by absorption through the pores of the skin, in sufficient quantities to manifest its deleterious effects. In malarious districts, therefore, caution should be taken against exposure to the evening precipitations and morning evaporation of the humidity of the atmosphere. Ground which has been a long time under water retains during a series of years the property of emitting the effluvia. The virgin soil in which decaying vegetable matter has accumulated for years, when first exposed to the action of the air by the labour of the pioneer, gives off a large amount of malarious effluvia; care should therefore be taken in the new settlement of a country not only to select a proper location, but also to protect the houses by a border of trees, particularly on the side against which the prevailing wind impinges. And it is to be regretted that good taste, as well as the comfort of an agreeable shade, does not more frequently induce the husbandman to spare some of the original products of the forest which are found near the spot on which he erects his dwelling. It is also stated that plants in active vegetation, as in the case of sunflowers, absorb deleterious effluvia; but whether this effect is produced independently of the screening we have mentioned has not yet been settled. In the fertile regions of the tropics where heat and moisture abound—for example, the valley of the Amazon—and where vegetation is luxuriant, the malarious effluvia is at its maximum; while in dry countries with less vegetable life, such as those west of the Mississippi, it is not found. Nature thus is not indiscriminately benevolent to civilized man; in his uncivilized condition different races are confined to different districts, and the influences which affect one are inoperative on the other. It is only by investigating the causes of these differences, and thus in some cases arriving at the means of controlling them, that the civilized man becomes a citizen of the world, and within certain limits is enabled to overcome the natural enemies to which in his primitive ignorance he is exposed.

The difficulty of investigating the nature of miasma has induced some to believe its effects due to variations of temperature and moisture; but this is not sufficient to explain all the phenomena, as places very different in this respect vary greatly in their sanitary condition. The quantity of material (whatever it may be) which constitutes malaria is too minute to be immediately detected by the eudiometer, the instrument usually employed to analyze air. M. Moscati, in order to collect it in considerable quantities, employed a glass globe filled with ice, on the surface of which the aqueous vapour of the atmosphere was constantly precipitated. He found that the water thus collected in infected places was of a white colour, inodorous, slightly alkaline, and after standing a short time, lime water and acetate of lead produced in it a light precipitate. It contained animal matter, ammonia and chlorate and carbonate of soda. The effect of this water upon animals has not, so far as we know, been tested, though it is said that sheep which feed upon grass covered by the morning dew in infected districts are subject to peculiar maladies.

The presence of organic matter may be detected in the process just described by dropping into the water a little sulphuric acid, and by afterwards evaporating the fluid we will obtain traces of carbon. If the experiment, for example, be made in a slaughter-house, comparatively a large amount of this substance will be obtained; and yet from abundant observation it is known that the animal effluvia to which the butcher is constantly exposed is not of a morbific character, since the followers of this occupation are proverbially healthy. It would appear from this fact that the hurtful miasma is of vegetable, not of animal, origin. That collected by Regaud had the odor of burnt plants when incinerated. The same investigator asserts that a marshy odor does not always indicate a feverish infection, and that in malarious districts it was above all to be feared at times when the air appeared pure and inodorous. From all the facts, then, it appears most probable that the substance called miasma is an organized body, endowed with life, and first generated in the decomposition of aquatic vegetation; that

its introduction into the circulation of animals is a real innoculation affecting especially the nervous system: finally, that when it commences itself to decay in the open air, it ceases to be deleterious, though it gives rise to disagreeable odors. This investigation opens a wide field for chemical research, to which the later improvements in the art of analysis may perhaps be successfully applied. Whatever may be the cause of the disease spoken of, experience has indicated the following precautions for those exposed to its influence:

1st. In malarious districts avoid as much as possible going out before the dew has evaporated.

2d. Do not go out fasting, but before exposure to the morning air take some slightly exciting drink, such as coffee or tea, in place of spirits. The former produces a healthful exhilaration, which prevents an attack of the miasma, while the reaction which succeeds the exhilarating effects of the latter tends to favour the absorption of the poison.

3d. Wear flannel garments next the body, which tend to stimulate the skin and prevent the deleterious effect.

4th. The use of disinfectants, though perhaps less energetic in destroying miasma than in decomposing odors, should not be entirely neglected; and for this purpose, a small quantity of chloride of lime may be carried about the person. It is said the flashing of gunpowder in a room answers the same purpose.

5th. Screens of trees should be planted to interrupt the damp and warm wind from the focus of the emanation.

6th. During warm weather, when ventilation is more necessary, provide the doors and windows with screens of fine gauze.

7th. Use boiled water in preference to any other, or pure rain water, or that which has fallen some time after the rain commences, to which add a small portion of vinegar or acetic acid.

8th. In cool evenings of summer, the dampness of the house should be dissipated by a blazing fire upon the hearth.

It appears that the malarious influence is produced at a certain temperature, and that it is favoured in marshy places by the heating of the water in shallow pools. It has been recommended to divide such places by deep parallel ditches or narrow canals at right angles to the direction of the prevailing wind, the earth of which is to be thrown up on the side in the form dykes, which are to be planted with rapidly growing trees or large shrubs. The ditch collects the water in too large bodies to be much heated, and this effect is further lessened by the shade of the trees. The latter also serve as a series of screens to intercept any malaria which may arise.—*Report on Meteorology by Prof. Henry, in the Agricultural Report*, 1857, *Smithsonian Institution.*

ENLARGED LIVER FROM TIGHT LACING.

By Mr. McWhinnie.

Whilst attending a young lady with a broken rib, occasioned by a fall from her horse, her mother observed that my patient's health, she thought, had suffered from the habit of tight lacing. The menstrual periods were irregular; her aspect was cachectic, and she suffered from hæmorrhoids. On examining into the physical effects produced by the continued constriction of the chest, it was found, by percussion, &c., that the liver extended downwards far beyond its proper region; its edge could be felt below the umbilicus, where it seemed pressed down and retained by the constriction of the lower part of the chest.

This case reminded me of some notes and a sketch of the liver of a female, aged 22, who had died of pleuropneumonia. Here, also, the lower ribs were much pressed inwards. On opening the abdomen, the liver appeared to occupy the greater part of the

cavity, increased to several times its natural size; and it extended from the hypochondriac region, where the right lobe seemed to press up the diaphragm and encroach upon the chest, downwards to the pelvis; its thickened inferior border reaching to the pubes, dragging down and altering the situation and relations of most of the viscera, the great cul of the stomach—as in another instance related to me—being lodged in the left iliac fossa.

The form of the liver from above downwards was altered to a greater extent than I have ever seen in the male subject, and was undoubtedly due to continued external pressure. The ill effects on the functions of many of the organs, &c., must be obvious, and it may be a question how far many of the symptoms in connexion with hysteria so eloquently described by Sydenham may not be referable to the above cause. The return of venous blood we may imagine might be here much impeded, particularly as regards the vena portæ. In connexion with this subject, I may cite the following instance of

OBLITERATION OF THE VENA PORTÆ.

A woman, aged 49, was admitted into St. Bartholomew's Hospital for dropsy. She stated that she had been in perfect health six weeks previously. The catamenia were at this time suppressed, and the case was treated slightly, with the expectation that on the return of the natural discharges she would recover. She was, however, seized with pain and stercoraceous vomiting, and died. On examination, the vena portæ was found obliterated to within two inches of its entrance into the liver. The splenic and superior mesenteric veins were pervious. The gastric veins were turgid, in consequence, no doubt, of their entering the obstructed part of the vena porta. The liver was healthy, and the gall-bladder gorged with bile. Hepatic, cystic, and ductus communis choledochus were pervious. Hardly a vestige of the pancreas, nothing but a very few scirrhus-like lumps, was found, suggesting the idea that the obstruction might have been originally owing to a diseased state of the pancreas. The hepatic artery was of natural size.—*Lancet.*

EPILEPSY—AURA STARTING FROM THE LEFT ARM—PREVENTION OF THE FITS BY THE LIGATURE.

(Under the care of Dr. Brown-Séquard.)

The following case is one of those in which the application of the ligature to the arm was followed by complete arrest of epileptic fits. In many cases the ligature does not prevent the fit, but, as in another case now in the Hospital, it appears somewhat to diminish their severity. It is certainly a fact of great importance that a measure so simple, will, in some cases, however few, break the chain of morbid phenomena, the ordinary result of which is so serious as a fit of epilepsy,—for not only does the patient suffer from the individual fits which might thus be prevented, but each fit, by the disturbance of the nervous system, increases the liability to future attacks. There are other parts of the body from which an aura arises. In one case we have related, they started from a small tumour on the forehead, and in another, below the left breast. Both these patients were much benefited by the application of the actual cautery. We also alluded to another case in which the aura started from the foot. In this case too very great benefit resulted from the actual cautery locally applied, and also from the ligature.

The following very brief account of some few points connected with Dr. Brown-Séquard's experimental research on epilepsy may perhaps be interesting to some of our readers in relation to this case. He found that certain injuries to the spinal cord in animals (of which section of one lateral half was the most certain) were followed by epileptiform convulsions. The convulsions would come on either spontaneously or after certain "excitations." One mode of producing them by excitation is to prevent the animal from breathing for a short time. Another (and this is the excitation to which we wish to draw attention) is by pinching the skin in certain parts of the face and

neck, supplied by part of the trigeminal and second and third cervical nerves, no other part of the body having this faculty. The part of the face and neck which has this power is very limited. The parts supplied by the various branches of the ophthalmic division of the fifth have not this property. It appears to be limited to some of the filaments of the auriculo-temporal and suborbital, and to a few of the second and perhaps of the third cervical. Dr. Brown-Séquard proves clearly that the fits are not consequent on the pain. When one lateral half of the cord is divided, irritation of the same side of the face only produces the fit,—the same amount of irritation on the other side producing no such effect; and again, the most violent irritation of the hind limb on the same side as the section, and which limb is in a state of hyperæsthesia, does not produce convulsions. Often even a touch or even blowing on the part of the face mentioned is followed by a fit. It is of great consequence also to note that it is in the cutaneous ramifications of the nerve, and not in the trunk of the nerve, that the faculty of producing convulsions resides. "If," writes Dr. Brown-Séquard, "we dissect a large piece of the skin of the face, so as to let it be in connection with the nervous centres only by the suborbitary nerve, we find that the irritation of the piece of skin is still able to produce convulsions, while the irritation of the very nerve connecting it with the brain does not produce any." These experiments show "that even where the primitive cause of the epilepsy is in the nervous centres, some cutaneous ramifications, not directly connected with the injured parts of them, have a power of producing convulsions, which other nerves, even directly connected with them, have not." "There is a great analogy between the aura epileptica in man, and the pain originating in the skin of the face of any animal."

Dr. Brown-Séquard gives many cases in which the power of the ligature in preventing the passage of an aura during its use entirely kept back fits of epilepsy. He shows also that cauterization of the part from which it proceeds, or the section of a nerve, or where the aura appears to proceed from the ramifications of nerve in muscles, that the elongation of these muscles often prevents the fit. Dr. Brown-Séquard believes that the existence of a particular spot, capable of producing fits when irritated, is not rare in epileptic patients. He gives several cases in which such local irritations were followed by fits. He writes also:—"Probably in many cases, without the feeling of an aura epileptica, and even without the feeling of pain arising from any part of the skin, the fits are caused by a peculiar and unfelt kind of irritation, originating from some part of the skin or from the sensitive nerve of a muscle."

He points out the mode of detecting the seat of such an aura in the arm by the application of localised and powerful galvanic currents, or by the application of ice, or of a wet sponge, etc. We refer our readers to his work, ("Researches on Epilepsy," Boston: 1857,") from which we have condensed the preceding particulars.

The following account of the case under comment is obtained from notes by Mr. Smith, the House-Surgeon:—

Caroline S., aged 12, a girl of healthy family, and healthy looking, and in whom no hereditary tendency could be traced, was admitted as an in-patient for epilepsy. When three years old she had two "fits," but they did not occur again until the age of ten. For two years after the first fits she lost flesh, but she afterwards improved again. The present series of epileptic seizures commenced two years ago. For two or three weeks before the fits came on, the left hand was spasmodically twitched. It occurred frequently, perhaps three times a-week. Her health was impaired; she complained of chilliness, and became cross and peevish. In two or three weeks after these symptoms, she was found in a fit. She was much convulsed; but her mother does not remember on which side she was the most affected. Some weeks elapsed before the next fit, they then occurred once or twice, sometimes three or four times in a week. She was under treatment by several Medical men. The fits always commenced by an aura starting from the finger of the left hand. While in the Hospital she had many warnings of approaching fits, but they were always staved off by the application of the ligature. She

was in the Hospital for about one month. During this time she took the extract of belladonna and extract of hyoscyamus twice a-day. Three days after she left the Hospital she had a fit, as her mother did not know how to apply the ligature. Dr. Brown-Séquard directed a blister to be applied round the arm, in the hope of, by this means, preventing the aura from passing upwards.—*Med. Times and Gazette.*

ON CERTAIN POINTS CONNECTED WITH DIABETES.

By F. W. Pavy, M.D., Professor of Physiology, Guy's Hospital.

Abridged from the London Lancet.—Continued from page 74.

I have thus brought our knowledge regarding the gluco-genic theory down to the present time, and from the investigations as hitherto conducted, the evidence appears conclusive enough in establishing the existence of a gluco-genic function appertaining to the liver. An animal kept for some time on food devoid of sugar or sugar forming principles, its life destroyed, and a considerable quantity of sugar is found in the blood escaping from the hepatic veins, whilst none or next to none is found in the blood of the portal veins going to the liver. Further, the liver is the only organ of the body in which sugar can be detected, and here it is found in considerable quantity, but further still the sugar forming substance found in the hepatic cell can itself be isolated, and the process of sugar formation satisfactorily explained. What then can be wanting to establish more fully the gluco-genic function? Still the position of the matter is this, experiments have been performed, and results obtained, the accuracy of which cannot be impeached. But these results have been derived from *post-mortem* examinations, taken to represent the *ante-mortem* state. By a different mode of experimenting than that hitherto adopted, very different results are obtained and here is the ground of my opposition to the gluco-genic theory. The blood in the right cavities of the heart, that in fact between the liver and the lungs was found highly charged with sugar. Now unless certain precautions are adopted, false conclusions will be arrived at. In conducting experiments on the injection of blood through some artificially inflated lungs, I had been in the habit of using blood collected from the right side of the heart after death, but subsequently procured it from the living ventricle, by a process of cardiac catheterism, an operation easily performed without leading to any sensible injury to the animal. An instrument is used specially curved for the purpose; it is introduced into the right jugular vein, and passed down through the superior cava to the heart. The blood thus removed from the living animal presented a totally different behavior to what had hitherto been considered as belonging to it from collecting and examining it after death. I had been accustomed to meet with a strong reaction of sugar as belonging to right ventricular blood. In five quantitative analyses, I found the proportion of sugar to vary from half a grain to one grain per cent. in difibrinated blood, but in that withdrawn during life, I failed to discover more than an appreciable indication of the presence of the saccharine principle, indeed, I at first thought the amount would be too small for quantitative determination, but I have since succeeded. The greatest care was observed and the amount of sugar found to vary from a proportion of $\frac{1}{1000}$ to $\frac{1}{700}$ or $\frac{1}{800}$ of a grain per cent. in the difibrinated blood. In withdrawing the blood from an animal during life it is necessary that the animal should be in a perfectly tranquil state at the time of its removal. Should there be any struggling or embarrassment of the breathing considerable indication of the presence of sugar is certain to be met with. Under great disturbance of the circulation from embarrassment of the breathing, I had noticed so large an amount of sugar in the blood, that I felt convinced it would be discoverable in the urine, were the condition maintained a sufficient length of time. After muffling the muzzle of a dog so that the supply of air is reduced short of producing asphyxia, the urine in an hour's time is rendered strongly saccharine. The administration of chloroform must also be

avoided. Chloroform not only reacts itself upon the copper solution but through its influence on the circulation determines to a greater or less extent an unnatural flow of sugar into the blood. It is not absolutely necessary to resort to catheterism of the ventricle to obtain a specimen of blood having the natural character belonging to life. Life is destroyed by pithing, and instantly afterwards the chest is as rapidly as possible opened, the heart seized, and a ligature firmly applied around its base: the blood is then collected from the right ventricle, and if the operation has been expeditiously effected, it will be found as free from sugar as if collected by catheterism in a tranquil state during life. After the destruction of life by pithing the circulation continues for a short period whilst the respiration is instantly stopped. One of the principal arguments of the gluco-genic theory is that after the administration of animal food the blood going to the liver is devoid of sugar, whilst that flowing from the organ is highly charged with it. I have strenuously urged that the saccharine state of the blood which is found after death is not its natural or physiological character. In experiments I have made and in which I have observed every precaution to obtain the specimens precisely in the condition that is natural to life, I could not perceive the slightest discoverable difference of behavior between the blood of the portal vein and that of the right side of the heart. We learn from what has preceded that there is not a flow o sugar into the circulation to be consumed in the lungs, which the former mode of experimenting led physiologists to believe. After death and under morbid states during life it is true, there is a large escape of sugar from the liver, but as a normal condition there is only a trace of sugar in the blood between the liver and the lungs, and this trace is met with in all parts of the circulation. Quitting now the blood I shall next direct attention to the organ itself, which has for years past enjoyed its reputed glucogenic function.

(*To be continued*)

A NEW OPERATION FOR THE RADICAL CURE OF HERNIA.

By J. J. Chisholm, M.D., Professor of Surgery in the Medical College of South Carolina.

Few subjects have engaged so much attention within the last few years, both among European and American surgeons, as this of the "Radical Cure of Hernia." This is due, doubtless, both to the exceeding frequency of this disagreeable condition, as also to the various methods recently proposed for effecting such a cure. Gerdy, among modern surgeons, led the way; Wutzer, Rothmund, Schuh, Langenbeck, and others, improved upon his method. All these operations propose to effect the cure by inserting a plug into the inguinal canal, and by the irritation thus produced, to excite sufficient inflammation in its coverings, to obstruct, if not to occlude this canal. Each new operation, in its turn, claimed the most splendid results. The successful cases were published by hundreds; but the thousand of failures were unheard of. This was doubtless owing to the fact, that these results were soon published after the operation; too early to decide positively, whether they would be permanent or not, for the deposit of lymph forming the adhesive bands is very apt to be absorbed, and upon any unusual muscular exertion or "strain," the hernial protrusion reappears, very much to the dismay both of patient and surgeon. Indeed, we may not venture too far in asserting that the successful cures are, perhaps, generally, cases where the lesion is of recent occurrence, or in individuals but little exposed to undue muscular exertion, and who would find sufficient relief and protection from a good truss. Wutzer's operation is applicable only in recent, small, oblique herniæ, and where we can select our cases, we perhaps may be rewarded with a success of fifty per cent.; but in average cases, failure is the rule, and a radical cure the exception. Nor is this all; for in many cases of failure after this operation, we have the canal more dilated than before, and hence a greater hernial protrusion. This operation, and the principle upon which

it is based, are now generally discarded, owing to the fact that Mr. Wood, of London, some two years ago, discovered and published a new and far superior method for effecting the same end. He makes a small subcutaneous incision in the upper and anterior portion of the scrotum, dissects the fascia, and invaginates it into the inguinal canal, then passing a needle with thick thread through three points in the canal, viz., a conjoined tendon, the triangular fascia, and the external pillar of the ring close to Poupart's ligament. The ends of the ligature are left in the two former punctures, and the central loop in the latter, passing through the pillar of the external ring, and through the same opening in the skin of the groin. A compress of glass or wood is then tied firmly upon the axis of the canal, by passing the ends of the ligature through the loop, and tying over the compress. The advantages of this operation over all its predecessors are obvious, and its successes in a high degree encouraging. It is adapted to inguinal herniæ of every variety, large and small, old and recent, direct or oblique. Even in case of failure, the patient would be in a better condition than before the operation.

Dr. Chisholm, Professor of Surgery in the Medical College of South Carolina, after seeing Dr. Wood operate in June, 1859, thinking that the incision in the skin was unnecessary (as the invagination of the fascia alone did not obviate the objection Mr. Wood expected to meet by this process, viz., the prevention of any dragging upon the invaginated scrotum), modified that operation, first, by invaginating *without* incision, as in Wutzer's; and secondly, by only making two punctures instead of three, Dr. Chisholm believed that a single loop passed from without through the two columns would be sufficient to obliterate the ring, and keep the columns in apposition, until the lymph effused in the site of the thread would cause adhesion, and permanent obliteration of the ring, restoring the external oblique to its primitive condition, before its fibres had been forced asunder by the protruding body. The first case operated upon in this manner was in November 18, 1859, and the operation has been often since repeated, both by himself, and others in this city, with the best results. Dr. Chisholm published this operation in the Charleston Medical Journal for May, 1860. In the London Medical Times and Gazette for Feb'y 4, 1860, two cases were reported by Messrs. Curling and Ferguson, adopting nearly the same modification upon Wood as this of Dr. Chisholm. The honor of priority, however, belongs to the American surgeon, Dr. C. having operated Nov. 18, Mr. Curling Dec. 1, and Mr. Ferguson Dec. 17, 1860. Other modifications of this operation have since been suggested, but of minor importance, such as the different curves of the needles employed, the clamp upon which the ligature is fastened externally, as also the material used for the suture. Although Wood's operation is a great improvement upon all previously devised, it still has its disadvantages. Even if we overlook the incision which complicates the operation, and would deter many from availing themselves of its advantages, we still have the length of time necessary to keep the patient in bed—not less than from twenty to thirty days; after that, a truss has to be worn for a considerable period, to counteract any undue pressure upon the recent inflammatory agglutinations. The suppuration from the sutures, and the continuous pain connected with the inflammation, are likewise disadvantages. These, and other considerations, have induced Dr. Chisholm not to rest satisfied with the successes gained, even by his modification of Wood's operation, but to add a still greater improvement, simplifying the entire procedure, and obviating nearly all the objections which have been, or may be urged to Wood's.

The new operation is as follows:—

The scrotum having been invaginated upon the finger, as the only mode of guiding the needle in its passage—a long strong curved needle, fixed firmly in a handle, and armed with silver wire, guided by the finger, transfixes the scrotum at the apex of the invaginated portion, passes through the internal column, and appears through the skin of the abdomen, when one end of the wire is drawn out. The point of the needle is then drawn backwards, and disappears again in the canal. Its direction is then changed. Whilst still imbedded in the scrotum, and guided upon the finger, its point is made to

traverse the external column of the ring near Poupart's ligament, lifting the skin of the abdomen. By gliding the skin upon the needle, the point appears through the small puncture made by the first passage of the needle; when the other end of the wire is seized, the needle is unarmed and withdrawn through the scrotum.

The finger is now removed from the canal, and the two ends of the wire being drawn upon the loop dissects the cellular tissue up to the columns, which it hugs closely. By twisting the two ends of the wire the columns are felt approaching, until they are brought in such close apposition as to allow nothing to pass between them—the spermatic cord, in its exit, filling up all the available space remaining of the ring. When the ring is felt closed, the twisted wire is drawn firmly outwards, and clipped off as close as possible to the skin, so that when the traction on the skin of the abdomen is removed, the gliding back of the integuments to their normal position, conceals completely the ends of the small loop of silver wire. The scrotum has already fallen back to its pendent position, and the only trace of an operation having been performed is in the two small punctures, one in the scrotum, the other in the abdomen, which require a careful search to find them, and which will heal up in a few hours, hermetically incarcerating the silver wire.

A moderate inflammation follows this operation, without much swelling or pain, and without any fear of suppuration. The wire is soon imbedded in a lymphy deposit, which will not only inclose it, thus isolating it from the tissues, but at the same time agglutinates the columns together as an additional security to the success of the operation. The patient is kept quiet in bed for four or five days, until the inflammatory stage passes; opium having been given to insure rest, and prevent any action on the bowels. When the inflammatory stage has passed, a cathartic is administered, and the patient can quit the bed, and in a few days resume his occupations. The silver wire remains as a permanent application. An essential element in the success of the operation is that the loop encircle the columns of the ring near their points of attachment to the pelvis; otherwise the columns cannot be approached, the ring remains open, and the results can only be negative. If this step of the operation be carefully followed, a radical cure may nearly be guaranteed.

The advantages of the operation are as follows: the patient is not detained in bed on his back for three or four weeks as in Wood's or in Wutzer's. No excess of inflammation is to be apprehended. No subsequent use of a truss is required, and there is no fear of a return of the rupture from the giving way of the recently formed but still delicate adhesion, through any undue muscular effort on the part of the patient, for the reliance is upon the silver band—the surgeon having provided his patient with a never-failing silver truss. The operation is applicable to hernia of every character. When the protrusion is large, and the ring voluminous, several points of suture might be applied, through the same puncture in the scrotum, and skin of abdomen, taking advantage of the facility of gliding these integuments over any portion of the external abdominal ring.

The objections which may be urged against this operation will probably be, that the silver wire will always act as a foreign substance; but from the experience of Drs. Sims, Simpson, Moffatt, and others we may assume that this is not the case, and from experience in its application in hernial operations, we know that it can remain harmlessly imbedded in the tissues for any length of time. Of course, flax or silk sutures cannot be used in this subcutaneous operation. Another objection perhaps may be, that the cut-off twist of the wire will irritate and ulcerate the skin. But this has not been found so, for the skin here is very loose, and therefore not so liable to be injured by a small foreign body beneath it; and we have every reason to believe, that a deposit will soon encase it, and render it permanently innocuous. These views were first practically carried out upon the living subject, Nov. 17, 1860, at the surgical clinique, in the presence of the class and a number of professional gentlemen. Three cases have since been operated upon. And as hernia are exceedingly common lesions among the laboring

negro population of the Southern States, and as the carelessness of this class of people renders the advantages of a truss nugatory, ample opportunity will be afforded of testing in time the validity and superiority of this operation over all other modes of radically curing inguinal hernia.—*American Medical Times.*

PATENT FORAMEN OVALE.

Dr. Bowditch reported the following case:—

The patient was a lady, 45 years old. In early girlhood, and till the age of 19, she was able to indulge freely in every sport, even the most active kind, in all of which she was foremost. These exertions she bore without the least difficulty. At the age of 19, while dancing at a ball, she first noticed dyspnœa on motion. A few years subsequently she married, but never bore children. From the above named period the dyspnœa had continued to increase, but only showed itself when going up stairs, or walking up a hill. She never had a severe paroxysm except once, while running, and after doing so, she thought, on one occasion, she should die, the breathlessness was so great. There were no accessions at night. Palpitation had never been noticed; but a certain lividity of the lips was perceptible when the breathlessness was greatest. She had had occasionally a cough, but nothing for which she had ever consulted a physician.

Her digestive, menstrual and renal functions had been perfect. She had never had œdema of the feet. Dr. Bowditch saw her, in consultation with Dr. James Jackson, five years ago. At the first examination it was evident that breathlessness was easily excited, and with it the lividity of the lips, but these were specially excited by a trial of going up a flight of stairs. The pulse was perfectly normal, and the physical signs about the heart were those of *absolute health;* and there was no hypertrophy. Neither Dr. Jackson nor Dr. Bowditch could discern any positive evidence of organic disease, and the affection was regarded by both as functional, although differing from most cases of simple functional derangement.

Digitalis, &c., were tried for a short time, but soon all treatment was given up, save the avoiding of everything tending to cause the symptoms.

The symptoms continued slowly but steadily to increase. The breathlessness finally became so great that the patient could not walk at all, even on a level, without great suffering, and the lividity of the lips was more marked and more permanent. The cough, still occasional and hard, had never been continued, so as to need medical advice. For the past five years the urine had often been dark, with a copious sediment.

Dr. Bowditch was again called about two months ago, and found the patient suffering extremely with permanent dyspnœa, and a sense of constriction and pain across the front of the chest, with other symptoms as above stated. Still there were no physical signs of cardiac disease, except that the heart, on percussion, seemed a little larger than usual. There was no irregularity, no murmur. The pulse at the wrist was good. There were trivial signs of disease at the apex of one lung, but not enough to attract much notice, and totally incapable of explaining the severe symptoms. Examination of the urine showed only urates—no albumen, no casts. The patient sank in a few days, with great pain and distress across the chest, intense dyspnœa, and extreme lividity.

At the *autopsy*, the right cavities of the heart were found much hypertrophied; the left were normal; or nearly so. The foramen ovale, an inch in diameter, was round and smooth, with a thin edge. All the valves were perfectly normal. The lungs had old tubercular disease to a small extent, in both apices. Owing to circumstances beyond control, the other organs were not specially examined, but they seemed normal.

The curious points in the case, Dr. B. thought, were these: 1st, the fact that the foramen ovale began to be permanently open at the age of 19, after dancing. The case probably was one of those in which a valvular opening existed before it became permanent, and had gradually increased during the thirty-eight years of the patient's subsequent life. Such cases are on record, though rare. 2d, the absence of all physical

signs was interesting; and yet, *a priori*, there were no reasons why this lesion should cause a murmur. It does, however, at times produce an obscure souffle.

Dr. Jackson said the case was probably valvular from birth, becoming direct in after life, with the usual consequences. He showed several dried specimens, preserved in the cabinetof the Society.

THE INHALATION OF NITRATE OF SILVER.

The importance of this remedy in Laryngeal affections is recognized, but the difficulty has been to apply it with facility. The plan suggested below by Dr. Studley of Yorkville, N. Y. seems to possess merits over those in common use, and we therefore give it. We extract it from the American Medical Times of March 2, 1861.

I pulverize the nitrate of silver in a moderately heated wedgewood mortar, to an impalpable powder; I then triturate it with sugar of milk, according to the strength which I desire—generally mixing them in the proportion of one part of the caustic to two of sugar of milk. This powder I put into a glass-stoppered jar of the pint or quart size, being careful to have the jar thoroughly dry by heating it. I place in the patient's mouth a glass or tin tube, one inch in diameter, and some eight or ten inches in length. Giving the jar a good shake and pulling out the stopper, I tell the patient to plunge the tube into the mouth of the jar and inhale. The cloud of powder which was seen floating in the jar, passes into and sprinkles the air-passages thoroughly. From one to three inhalations at a time is sufficient, and about twice or thrice a week. The powder can be kept in good condition for about a month, the main trouble being the heating the jar every time you wish to use it, in order to drive off whatever atmospheric moisture may have collected. In all instances where it is desirable to go below the epiglottis with this remedy, I know of no way more efficacious than this, and being simple it is within the reach of all.—*Med. Times.*

CASE OF HYSTERICAL SINGULTUS.

Dr. Ottoni relates the case of a woman, aged 42, widow of an impotent husband, who after suffering for years from hysteria, which had been treated by excessive bleeding, became the subject of that distressing form of it, obstinate singultus. This, at the time of the author's writing, had lasted thirty-four months with rare intervals of ease, notwithstanding the use of various remedies; and it was always found that any temporary amendment was followed by a subsequent redoubling of its severity. Electricity seemed to be of most benefit, but was not persevered in sufficiently.—*Ibid.* Vol. clxxii. p. 603.

HYPODERMIC MEDICATION BY SULPHATE OF QUININE.

The subject of hypodermic medication is now attracting much attention. Much has been said about its great efficacy in neuralgic affections, where the effect is supposed to be a local one, though, at times, the constitutional symptoms are quite marked.

The results of experiments performed by Dr. I. Sanger, of Davenport, Iowa, with sulphate of quinine, and reported in the *New York Medical Press* for June 16, 1860, prove that this drug, at least, acts after its absorption. The article is quite lengthy, but the following conclusions contain the substance of the author's labours:

"1. Certain agencies most powerful when hypodermically used will become inefficacious when administered in stomach doses.

"2. Sulphate of Quinine injected into the areolar tissue will act quicker, more powerful, and with equal if not with more certainty in subduing the primary symptoms of malarial infections, than when administered by the mouth.

"3. Sulphate of Quinine injected under the corium even in large doses, one scruple at one injection, will not produce excessive cephalic symptoms.

"4. Sulphate of Quinine injected under the corium, if necessary, during a paroxysm, will be followed with less aggravated symptoms than in stomach doses.

"5. Where the Sulphate of Quinine is indicated, the local irritation of the stomach and appendages constitute no contra-indication.

"6. The injection must always be made under the corium.

"7. The solution must be rendered neutral to avoid unnecessary pains.

"8. For the same purpose, also for dissolving the crystals sometimes precipitated in a solution of Sulphate of Quinine, the temperature of the solution must be increased to blood heat and over.

"9. Sulphate of Quinine hypodermically applied is received into the system in a greater state of purity than when given by the stomach, where it may become contaminated or decomposed."—*Boston Med. Journal.*

WHISKEY IN TETANUS.

In the *Louisville Medical News*, for September, 1860, Dr. A. B. Cook has an article upon the treatment of *tetanus*. He reports a case treated with whiskey, in which the results were perfectly satisfactory. The usual treatment was pursued for a time, with no improvement. Two ounces of whiskey were then ordered to be given every two hours, and the symptoms abated, and in due time the patient recovered.

Dr. Cook says, "From the evident good effects of the whiskey in this case, I would administer it with more hope of success than any other remedy with the result of which I am at present acquainted."—*American Medical Monthly.*

PUMPKIN-SEEDS IN TÆNIA SOLUM.

Kousso and the ethereal tincture of male fern are certainly very efficacious in effecting the expulsion of the tænia; but practitioners should note the results obtained in Algeria by M. Tarneau, a military surgeon. Free ten drachms of pumpkin-seeds from their husks, pound them in a mortar with a sufficiency of sugar, and add to the paste thus obtained a cup of milk. The patient should be put on a very low diet, and be given a small dose of castor oil; on the next morning the pumpkin-seed electuary must be taken at an early hour, and from twelve drachms to one ounce of castor-oil two hours afterwards.—*London Lancet.*

The first account of the use of these seeds in tænia is by Dr. Jones, of Boston, and the remedy has been in use in this country for years back. It is either given in the form of the expressed oil, which is the active portion, or as above.—*Ed. Drug Cir.*

QUININE IN THE TREATMENT OF ACUTE RHEUMATISM.

In the *Atlanta Medical and Surgical Journal* for September, Prof. J. G. Westmoreland has an article upon the treatment of rheumatism. He says, "Quinine is not more certain to arrest the progress of malarial fever than it is to allay the symptoms of rheumatism." He would give Quinine in from five to ten grain doses, in combination with from one to two grains of opium. He says, "Quinine, in the treatment of rheumatism, as in fever, should be given in quantities sufficient to impress the nervous system fully." Further, and more specifically, he says, "In order to insure the tonic or invigorating influence of it upon the nervous centres, sufficient to counteract the disease, the amount of fifteen or twenty, and sometimes thirty grains is required."—*Medical Monthly.*

MIDWIFERY.

ON THE VALUE OF ANÆSTHETIC AID IN MIDWIFERY.

By Charles Kidd, M.D., M.R.C.S.

In obstetric practice, the instances where the author has found the inhalation of ether or chloroform to be called for in an especial degree, and where anæsthetic aid has proved decidedly useful, have been cases of version, forceps, twins, convulsions, and crotchet operations. He has known chloroform used in puerperal mania, but its apparent effect is perhaps a coincidence, and not of a curative nature. The author referred the Society to his previous work on "Anæsthetics," where the result of 360 cases of midwifery treated under ether, and 1700 under chloroform, without accident from fatty heart, are described. Of these two agents (though there have been twenty-five deaths from ether in general surgery), he believes ether is superior to chloroform in relaxing rigid perinæum in labour, and otherwise acting on the muscles of the uterus, in version cases particularly. There have been no accidents from chloroform in about 30,000 cases of midwifery conducted with the aid of these agents. The mode of applying chloroform in the lying-in chamber recommended was that which is adopted now by all the chief obstetric practitioners in Europe and America with whom the author has personally communicated on the subject. In midwifery practice, the error of using "mixtures" of ether and chloroform was explained, as a patient supposed to be inhaling a mixture is in reality inhaling pure ether, and there is a danger of confusion arising in mistaking one anæsthetic for the other. A new anæsthetic of chloroform and ergot mixed was also mentioned.

Cases of twins, where the second child presents with an upper extremity, "the pains severe and continuous, so that it is next to impossible for the accoucheur to introduce his hand to turn the child," were first described, where chloroform is invaluable, if there be no contra-indication of diseased heart, &c. The several indications in undilated os uteri for tartar emetic, liquor opii, or chloroform, from the result in actual practice, were explained. Next those cases of twins were pointed out where at one particular stage it is judicious to allow an interval of rest to the uterus: here ammonia and ergot act like a charm; not that chloroform is injurious, but it requires to be given before or after ergot, and not at the same time. The author said that if, in journals, half the attention were given in fact to these points that is given to quack compounds of chloroform, all would be right.

As in some cases of twins, so is it in some cases of "tedious labour," the patient requires an interval of rest to renew reflex action and remove the effect of exhaustion, "false pains," emotion of a depressing kind, sleeplessness, &c. Thus, an inexperienced or constitutionally delicate young woman, with her first or second child, becomes alarmed, sleepless, &c., during her labour. Some indigestion, diarrhœa, or fright, has hastened her labour before its time. The first stage of labour has been attended with suffering, followed by fatigue. Here the pains are ineffectual in advancing the labour; but if there be no diseased heart or other contra-indication to anæsthetics, the author strongly advocates their administration in the manner pointed out in the memoir.

How does sleep during labour differ from anæsthesia? Sleep, according to the author, occurs only where there is exhaustion of sensorial or muscular power; anæsthesia is best where there is no exhaustion; it is independent of sleep. The reflex power of Marshall Hall is the frontier or limiting line between sleep and anæsthesia; in sleep it is active, in anæsthesia absent. In tedious labour, the agony and pain will not permit the poor woman to sleep. Even opium is followed but by a tedious intoxication, without sleep, for hours; but chloroform is not an intoxicant, and acts at once and quite as safely. A patient in ordinary anæsthesia may be said to be doubly asleep. This is what is wanted for a short time in this class of labours, as thus reflex, sensorial,

and muscular power are renewed. Emotion, also, is removed out of the way by chloroform sleep; and by a confident, cheerful demeanour on the part of the accoucheur, he may effect as much in two or three hours by chloroform as he might in almost as many days by delay, and opium, and waiting for nature.

Cases of versional delivery, with and without chloroform, were next minutely described and compared; cases especially of excessive sensibility of the os uteri and vagina, where the waters have long come away, and the uterus has closed with spasmodic force over the fœtal hand and arm. One well-known obstetrician has had 300 such cases; and he is every year more and more satisfied with the aid afforded by chloroform. The value of versional delivery and its *rationale* were also enlarged upon, as well as the much-to-be-desiderated probability of the abolition of craniotomy, and of many cases where the forceps is unnecessarily and cruelly resorted to at present.

Next to version cases, the usefulness of chloroform in forceps patients was explained, and directions given as to the mode of administration. Chloroform in abortion cases at the fifth or sixth month, as advocated by Dr. Tyler Smith, was also dwelt on; and even in cases of placenta prævia, as administered by Professor Simpson, Denham, and others. Chloroform, as facilitating delivery by means of version, has been tried with advantage to anticipate hæmorrhage. Ammonia or brandy is first given, chloroform then administered, the feet brought down, and the remainder left to nature as the chloroform wears off.

The treatment of particular forms of puerperal convulsions by chloroform was entered into and explained, especially its usefulness in that form common in poor unmarried women—convulsions the consequence of mental emotion, or epileptic excitement; but in the class of cases tending towards, or the result of, apoplexy, and those with albuminuria, the use of chloroform or opium must be somewhat secondary, Dr. Kidd thinks, to the general treatment and general relief of the congested cerebral or spinal membranes. The author is not favourable to the use of anæsthetics in the simple hysteric varieties of the disease, hysteria generally being one of the contra-indications to the administration of chloroform.

The law of tolerance of chloroform in midwifery is not unlike that of the tolerance of ammonia, steel, bark, wine, opium, &c. All these medicines are of exceeding value where there is present shock to the nervous rather than to the vascular system. Chloroform is invaluable where there is exhaustion, debility, or shock, the result of great or long-continued pain; where there is loss of nerve force, or convulsions from excess of reflex irritability or pain, or mental emotion or excitement, &c. But chloroform is of less importance, as even wine, bark, iron, ammonia, &c., are of less use, where there is exhaustion the result of hæmorrhage, hectic, diarrhœa, exhausting suppuration, &c. Such diseases as chorea, asthma, whooping-cough, tetanus (not unlike puerperal convulsions), are blotted out by chloroform, no matter how apparently weak the patient may seem; but it is different with debility from hæmorrhage or diarrhœa.

The author's further experience of chloroform, in operation cases of craniotomy, vesico-vaginal fistula, ovariotomy, enucleation of uterine tumours, &c., in which he has administered it largely, was, in conclusion, recited.

Dr. TANNER stated that he made it a rule always to take chloroform with him to every case of labour. When the pains become bad, he explains to the patient—provided he finds no objection to the employment of an anæsthetic—that he can relieve her of all suffering, if she wishes it, by means of chloroform. Many patients are anxious to inhale; a few decline. During the present year, Dr. Tanner had only one case in his private practice which had caused him much anxiety; and in this the dangerous symptoms arose, as he believed, from the formation of a clot in the right side of the heart. This lady did not take chloroform. Dr. Tanner observed that he was careful only to give this anæsthetic during each labour pain, taking away the handkerchief or inhaler directly the pain went off. Stating the results of his experience briefly, he might say that he had never found chloroform do harm, but, on the contrary, much good; while it shortened the after-period of convalescence. He was careful, in cases where he

feared hæmorrhage, to give a large dose of ergot towards the close of the labour; but he did not object to the use of chloroform as well. In operative midwifery anæsthetics were invaluable.

Mr. Gervis referred to two cases of death from chloroform which had come under his notice in hospital surgical practice, in both of which the patients had previously been the subjects of delirium tremens; and in both the muscular tissue of the heart was found, after death, to be soft and greasy—a condition, indeed, which the result of many examinations showed to be tolerably uniform in most cases of death from delirium tremens. Mr. Gervis considered that these cases, though not obstetric, would tend to corroborate the view of the unadvisability of administering chloroform in labour where the patients had been the subjects of alcoholism.

Dr. Barnes rose to disclaim all responsibility in the case of death after chloroform which Dr. Kidd had cited in connexion with his name. The case had been related by Professor Faye, of Christiana. He (Dr. Barnes) had simply recorded it in an English journal. With respect to the use of chloroform in obstetrics, Dr. Barnes had found, in a large experience of turning, that in many cases chloroform did not facilitate the operation. The influence of the brain removed, the excito-motory system seemed to act more violently, and sometimes spasmodically, the uterus resenting the introduction of the hand. Under ordinary circumstances, turning could not be regarded as a severe or painful operation. Delivery by turning was sometimes less painful than by the head. Again, in ordinary forceps cases, chloroform was certainly not required either to facilitate the operation or to allay pain. In operative midwifery, chloroform was most useful in turning where there was unusual difficulty, and in difficult delivery after craniotomy. It appeared to him incomprehensible how a special immunity from the perils of chloroform should pertain to puerperal women. To say that 40,000 women had taken chloroform in labour, without any mishap, was one of those vague statements which were entitled to little weight. He had himself given chloroform to facilitate the extraction of an adherent placenta, and had witnessed such exceeding prostration for three hours afterwards as to make him and another practitioner, who assisted, apprehensive of the instant death of the patient. He should be sorry to have it supposed that he entertained any prejudice against chloroform. He knew its value in certain cases, and gave it with care, and yet without timidity, and should not be deterred either by the bad effects he had witnessed or by those he had heard of from giving it on proper occasions. He had been especially gratified with the beneficial effects of chloroform in cases of great nervous excitement, where the patients laboured under a sense of dread of impending danger, and where even convulsions seemed to impend. He believed he had thus averted convulsions, and had certainly accelerated labour. He thought it worthy of inquiry why anæsthesia had made so little progress in Germany, where interference in labour was so much more general. It was also worthy of remark that English midwifery maintained its greatly superior success, notwithstanding the introduction of chloroform.

Dr. Gream said that, from some observations which had been made, it might be inferred that chloroform was but little used in midwifery in London; but he was sure that in no place was it more extensively employed, and he could positively state that amongst the upper classes it was almost universally employed, but with a general feeling of abhorrence of anything like intense insensibility. Surprise had been expressed by Dr. Barnes at the statement that so large a number of cases had occurred in which chloroform had been used in midwifery without accident; but there appeared to be no difficulty in understanding this, for it should be remembered that it was never right, nor was it required, to carry insensibility so far as in surgery; and he (Dr. Gream) was sure that all the fatality which had attended the exhibition of chloroform in midwifery had arisen from some little want of care, or from a want of appreciation of its power. When anæsthesia was first introduced he had opposed, with others, the indiscriminate use of it, for he thought that at that time it was recklessly employed;

and he believed that the present safe and efficient manner in which it was exhibited in London was the result, in a great measure, of the opposition offered to its former indiscreet and dangerous employment. It was a fact that no death from chloroform in midwifery had occurred in London; but allusion having been made to two authorities "beyond the Tweed," it was right to state that *there* the same immunity from calamity had not been enjoyed; yet he felt sure that no agent could be more safe, and none more beneficial, than chloroform in midwifery when properly administered. He thought the author of the paper had unintentionally exaggerated the ill effects (if there were any), and also the good effects, of chloroform. For three reasons he (Dr. Gream) thought chloroform most beneficial in labour: it removed pain, it rendered turning more easy, and it facilitated recovery; while the only detrimental effect was in protracted labour with pelvic contraction, where, by lengthening the intervals between the uterine pains and slightly diminishing uterine power, it might cause delay; but its advantages in all other respects made full recompense for this one drawback. In instrumental delivery of every kind it was most advantageous, and he had seen fewer cases of hæmorrhage since he employed chloroform; indeed he had exhibited it to patients who had habitually been subject to this occurrence without hæmorrhage supervening—a fact worthy the attention of theorists, but nevertheless a fact. Each person had his own way of administering chloroform. He had tried several plans, but of late years he had employed a common tumbler, into which he placed the chloroform, together with a clean pocket-handkerchief moistened with about two drachms of the fluid. This quantity ought to last two hours or more. The patient's face projected over the side of the pillow, and the nurse or the husband (strictly under his direction)j placed the tumbler under her nose and mouth at a distance of about an inch and a hal or two inches, and thus the vapour rose perpendicularly towards her. She soon expressed a sense of giddiness; but the tumbler was still retained, until there was nearly an inability to answer any simple question put to her, and that should be the point beyond which no advance should be made. The chloroform should be now removed, and be replaced in a few minutes; and by thus being replaced and removed from time to time, while the pulse is felt and the respiration watched, a labour might be conducted through its stages without danger and without pain. He had never, during the number of years he had used chloroform, had one moment's anxiety as to its effect upon any patient to whom he had administered it. The object of the handkerchief in the tumbler was to preventany chloroform from running out or escaping on the bed if the tumbler fell over. He had found that any handkerchief or machine with which it was necessary to touch the face had the effect of rousing the patient, and thus did harm.

Dr. Druitt said that he believed there were very few labours in which chloroform might not be used with benefit at some stage or other; and that even when all the earlier stages go on easily and well, it is the greatest comfort at the final moment when the head emerges from the outlet. He did not believe that chloroform predisposed to hæmorrhage; on the contrary, he knew women who had flooded severely in their earlier labours, when they had no chloroform, who had been confined under chloroform subsequently without hæmorrhage. Neither does it seem to retard uterine action after the first inhalation or two, provided that it be used in the small doses which reason dictates; nay, it removes that obstacle to uterine action which is created by excessive sensitiveness of the orifice and passages, and which causes uterine action to be abortive. He knew a case in which, after a very slight inhalation, enough to tranquilize, but not stupify, the head was driven through, with rupture of the perinæum, —that external sensitiveness having been allayed which is a bar to uterine action. In cases of protracted labour from rigidity, such as happen to robust women who marry rather late in life, the blessing of chloroform was incalculable. These were the cases formerly treated by bleeding, tartar emetic, and opium; and in opposition to the author, both opium and emetic-tartar, in minute doses, were admirable adjuvants in the proper cases. No amount of torture equalled that which many women endured from excessive

uterine action and quasi inflammatory rigidity of the os, and chloroform agreed well with any other proper remedy that might be devised. The only reservation he would make was, that chloroform should be used in the minutest quantity, and the minutest quantity sufficed. Two drachms was enough in most labours, a few drops at a time, to imitate the normal condition of labour; that is, a short snatch of refreshing sleep at the end of every contraction, and a little drowsiness beyond. He had met with two cases in which a very small quantity of chloroform produced symptoms of angina pectoris, in women whose hearts were weak, and in such cases he thought the risk ought not to be run.

Mr. BROWNING'S experience was in favour of the use of chloroform, especially in complicated and difficult cases of midwifery.

Dr. ROGERS was glad to hear Dr. Gream so candidly avow the alteration of his opinions on the subject of chloroform in midwifery. Dr. Rogers knew of one case, which occurred at Camden-town, in which death took place apparently in consequence of the employment of chloroform in midwifery. In his own practice he had never met with the slightest accident from its use.

Dr. GRAILY HEWETT stated that the fatal case alluded to by Dr. Rogers, and which occurred some three years ago, was, as he had been informed, one in which the patient was labouring under alcoholism when the chloroform was administered; the gin-bottle was, in fact, found under the pillow after the patient's death. This case was therefore confirmatory of the opinion advanced by Dr. Kidd as to the danger of chloroform in such cases—an opinion also supported by Mr. Gervis's experience. With reference to the general question of the danger of chloroform in midwifery practice, he considered that there could be no reasonable doubt that chloroform was neither more nor less safe in cases of midwifery than in other cases. It was well known that in operations generally chloroform had not proved always safe; and it was as reasonable to suppose that death might occur after the use of chloroform in midwifery as after the use of chloroform under other conditions, the result not being connected in any way with the especial circumstance that the patient was in labour at the time of its administration. One question—a very important one, as he considered—had not been touched upon by the various speakers, excepting in a very incidental manner—namely, the effect of the employment of the chloroform in cases of puerperal convulsions, on the data furnished by various recorded cases, he had failed to arrive at any sufficiently general conclusions in answer to this question. The difficulty of establishing the relation of cause and effect as regards the action of medicines was universally admitted, and in reference to the supposed beneficial or other effects of chloroform in puerperal convulsions, the tendency of the evidence as yet adduced was not always uniform. In a case recently published in one of the American journals, the patient being affected with uræmic symptoms, the occurrence of puerperal convulsions was anticipated, and chloroform was given to ward them off. The chloroform did not, however, prevent the access of the convulsions, although it is stated that they were modified and lessened under its influence.

Dr. TYLER SMITH agreed with nearly all that had fallen from the previous speakers in favour of chloroform in obstetric practice. He thought it might be laid down as a principle in regard to its employment, that besides its value in allaying pain, it was useful in all cases, especially in operative midwifery, where it was desirable to moderate excessive action of the uterus, and to promote dilatation and relaxation. He held, on the other hand, that it was contra-indicated in cases where there was deficient action of the uterus, as in tardy labour from inertia, and in cases where hæmorrhage was expected. He had seen it stop the course of labour midway, and he believed that post-partum hæmorrhage and retention of the placenta occurred more frequently after its use than without it. One good effect of the discussion on the present paper lay in the differences of opinion which had been elicited. The causes of these differences would be studied, and the truth brought out. It could not possibly be correct that

chloroform relaxed the uterus so as to facilitate turning, and made it contract so as to increase the difficulties of this operation; or that it could both cause and prevent hæmorrhage. He had himself no doubt of its usefulness in difficult cases of turning. He had met with cases in which version had been accomplished by its aid, where without it the operation would have been utterly impossible. He had seen mania follow its employment, and he thought that in some cases the relation was that of cause and effect. He had also met with bad cases of rupture of the perinæum under its use. The patients were relieved from pain, but volition was not suspended, and under these circumstances, the violent and fearless straining efforts ploughed up the perinæum by the fœtal head during the expulsive pains. It was of very great consequence to lessen, as far as possible, the dangers attending this great and beneficent agent. The influence of fatty heart, alcoholism, and other conditions, in fatal cases, had been much debated; but there was another source of danger which, so far as he was aware, had not been dwelt upon. He referred to idiosyncrasy. He had known patients affected to a poisonous extent by ordinary doses of ether or chloroform. He knew two ladies, in apparently good health, in whom a few drops of chloroform would at any time produce repeated faintings. He suspected, therefore, that some of the inexplicable cases of death from chloroform depended on idiosyncrasy, and before its administration it would be useful if patients were tested as to their tolerance of its effects.

Dr. KIDD, in reply, thanked tha Society for their very flattering and kind estimate of the paper. One or two points had dropped out in the reading which perhaps might be supplied. He did not himself think in forceps cases chloroform is indispensable; but he furnished the usual directions for chloroform, whether before or after the blades were applied, &c. Chloroform, by facilitating versional delivery, will lessen the present number of forceps cases. The President, in his able summary, mentioned "idiosyncrasy" as a probable cause of death. This can scarcely be, as, in 100 deaths, about 40 of the patients had inhaled chloroform (two or three, or even in some cases ten times) previously without suffering from it. The word idiosyncrasy is vague, and would cause unnecessary alarm, which always does evil. Delirium tremens, "alcoholism," hysteria, might be substituted for idiosyncrasy. As to hæmorrhage cases and the use of tartar emetic with chloroform in undilated os, he differed from Dr. Druitt. The men of practice differed from the men of the pen. The views expressed by Dr. Barnes were also such as were held by no other practical man in Europe; that version could be effected better without than with chloroform. Mania from chloroform is a similar error; and as to heart complications, diseased valves, &c., this is also probably a mistake of one book copied into others. The respiratory system is, in reality, the point where accidents originate; but there has not been a single death from chloroform in midwifery practice.—*Lancet.*

ON THE TREATMENT OF NAUSEA AND VOMITING IN UTERINE INFLAMMATION AND IN DISEASES OF MENSTRUATION.

By EDWARD JOHN TILT. M. D.

Nausea and vomiting were said to be comparatively uncommon symptoms in uterine affections, but very distressing from the loss of strength, and from the irritability which followed them. The fact of nausea and vomiting occurring so frequently in connection with otherwise healthy menstruation and with pregnancy was considered to explain why vomiting was a symptom of diseased menstruation; and their occurrence during amenorrhœa, dysmenorrhœa, and menorrhagia, in which the body of the womb, and more particularly its lining membrane, is implicated, was given to explain why nausea and vomiting are frequent symptoms of internal metritis, whether chronic or acute: whereas it was said to be extremely rare to meet with them when the neck of the womb was alone implicated, for they neither accompanied its various kinds

of ulceration nor the catarrhal inflammation of its mucous membrane, which is the most common of uterine affections. Continued nausea was represented by Dr. Tilt as much more frequent than vomiting, most troublesome in the morning, going off after breakfast or dinner, increased by worry, excitement, the fatigue of dressing or talking, and being sometimes so irksome as to cause patients to refuse taking any food unless forced to do so. Some patients only vomiting once or twice in the morning, others more frequently. One only vomited at menstrual periods, and then incessantly for two or three days, with but short intervals of rest. Another thought that she vomited all her food for a year; and in one case the vomiting was continued for eight years, killing the patient at last by inanition. In most of these distressing cases there were no symptoms of biliousness, the sickness being a reflex nervous phenomenon, as in pregnancy. Dr. Tilt stated that uterine treatment, such as leeches to the womb, or the application of potassa fusa cum calce, would sometimes suddenly check the vomiting for a period; that this result cannot be depended upon; and that besides the regular treatment of the uterine affection, that it was necessary to mitigate the patient's sufferings. Even when the patient presented little signs of biliousness, Dr. Tilt advised, as a preliminary measure, a full dose of calomel, followed by alterative doses of blue pill, to be continued for a week or ten days. This would sometimes very much diminish the vomiting and nausea; if not, the well-known minor remedies for sickness might be tried in succession. Strychnine was also mentioned as having been useful with some patients; and various interesting cases were related, showing the utility of a solution of morphine, given in effervescing draughts, and repeated after every fit of vomiting, two grains having been, however, sometimes given without quelling the sickness. Blisters to the pit of the stomach, dressed in the usual way, or with acetate of morphine, were favourably mentioned; and, as a last resource, Dr. Tilt advised an issue to the pit of the stomach, by which means he was able to check vomiting which had lasted incessantly for a year, in a patient who, last winter, was only kept alive by brandy. The issue had been discharging for six months, and still continued to check the sickness, notwithstanding a severe relapse of internal metritis, which had caused this distressing symptom. In another case of chronic inflammation of the womb, vomiting seemed to relieve the still more distressing pains, so Dr. Tilt did not think himself justified in recommending the application of an issue. When nausea was protracted, he urged the necessity of forcing patients to take a few mouthfuls of food repeatedly in the course of the day, as in the sickness of pregnancy, and he advised those who suffered from morning sickness to take a little tea, milk, and rum or brandy on waking and before getting up.—*Lancet.*

MATERIA MEDICA.

ALUM LOZENGES FOR APHTHÆ AND PHARYNGO-LARYNGEAL ANGINA.

Instead of the alum gargles prescribed for pharyngo-laryngeal angina, the aphony or dysphony of professional singers, and for aphthæ of the mouth, whatever be their origin, Mr. Argenti exhibits with benefit the following lozenges:

℞ Aluminis.
Tragacanthœ.
Sacchari.
Aquæ destill, lauro-cerasi, each, q. s. for lozenges weighing 7 grs., and containing each about ½ gr. of alum.

The well mixed mass is spread over a sheet of paper, distributed into lozenges, and dried at a mild heat. The result is a lozenge in which the astringent taste of the alum is tempered by the sweetening ingredients, and will keep for months. The lozenge is allowed to melt in the mouth.—*Championnière's Journal of Practical Medicine and Surgery.*

THE

British American Journal.

MONTREAL, MARCH, 1861.

THE MORTALITY OF MONTREAL.

The observations made in our last number on the subject of the mortality of the city of Montreal, have elicited from several of our city contemporaries questions as to its probable cause. The subject is certainly one of great moment to us, in whatever light we choose to view it. An infant mortality of about 65 per cent. under 5 years of age, is in reality an alarming circumstance, and should necessitate a strict scrutiny into the causes productive of it. But however desirous any one may be of directing his investigations in such a quarter of inquiry, his efforts are immediately arrested by a want of accuracy in the official returns of mortality, an inaccuracy which respects as much the nature of the diseases themselves from which death ensued, as the wards of the city in which they actually occurred. And not in fact until the question of our vital statistics is taken up by the Government as a matter of Provincial Legislation, and systematized, as it is done in England, France, and other European kingdoms, will or can the subject become properly elucidated. The laws which govern the health of a whole community should be as thoroughly appreciated as those which govern its individual members in their civil and political relations, and no more important duty can devolve upon a government than a thorough appreciation of all the causes which tend to impair it. We have little doubt, however, that if the system at present adopted by our City Council were a little more in detail, such for example as the adoption of measures to secure the proper enregistration of the disease, of the age, and of the ward of the city in which the death took place, valuable results would be at once secured; as, while effecting improvements, such a system would enable our council to disburse its funds with one of the noblest of objects in view, that of diminishing a large mortality by appropriate drainage, &c., in those parts of the town where the necessity for it would become thus, and thus only, unfolded.

In such a vague condition of matters as here exists, no special conclusion as regards ward mortality can be arrived at; but the census of the city and environs having been completed since our last issue, we are enabled to arrive at a general one, which is, that last year the ratio of mortality in this city was to the popu-

lation as 3174 to 101,602, yielding a death proportion of 1 to every 32.01 inhabitants, or a ratio of 3.12 per cent.; and this ratio should suffer a still further diminution, for it is well known, that a considerable proportion of the deceased from all the adjoining villages, find their last and final resting place in the Protestant Cemetery of Mount Royal, a fact which does not obtain we believe at the Roman Catholic one, the interments in which are restricted to the deceased of the city proper and a portion of its environs, or the Parish proper of Montreal.

Now from our own observations, as well as from calculations made in former years, this shews a very decided and marked improvement in the sanitary condition of this city. In the year 1847 we published in the old series of the *British American Journal*, a paper on the mortality of this city for the year preceding, during a period in which a By-law of the City Council rendered the mortality returns by wards also imperative. It will be remembered that a census of this city was taken in the year 1844, which returned its population as 44,093 souls. This census was confessedly very imperfectly taken, but allowing for a deficiency in the return, which it is believed really existed, we do not think we are wrong in estimating the population, two years afterwards in 1846, at 50,000. This year, then, the mortality returns yielded 2118 deaths —a ratio of 1 to every 23.60 inhabitants, or a death rate of 4.23 per cent., thus shewing that during the currency of fourteen years from 1846 to 1860 a reduction in the mortality rate of the city had been effected to the large extent of about 25 per cent. We regret much that we cannot place our hands upon a valuable manuscript of our own, which cost us great time and labour, enumerating the births, marriages and deaths in this city since its foundation in 1642, together with the census returns and estimated population at various periods; but we have a distinct remembrance of the mortality rate of the year 1836, (if we mistake not the year,) which afforded a ratio of about 1 to every 19 inhabitants or 5.26 per cent., thus shewing a still more marked diminution since that period of time. Surely if there is one thing more than another, on which the inhabitants of this highly favoured city have reason to congratulate themselves, it is on such facts as these. What signifies its importance as the first commercial city of British America; why pride ourselves on its still rising greatness, its rapidly increasing population, and its magnificent edifices, if at the same time it exhibits itself as a huge charnel house, in which the very air we breathe teems with sickness, suffering and death. To a great, a very great extent indeed has the mortality of the city been diminished, still we really can see no reason why in this respect that death rate should not suffer a further reduction, and the city compare most favourably in this respect with the most favoured ones of England, France or the United States.

Previous statistics shew that the wards of the city most conspicuous for their mortality were the St. Ann's and St. Mary's wards, the two which approach the nearest to the river level, and to which sufficient attention had not been bestowed in drainage. And we feel persuaded, that if we could arrive at the statistics, or if, for the future, the mortality returns were made to specify the wards in which the deaths took place, we should find these wards still enjoying, if such it can be called, their sad pre-eminence.

We have by no means exhausted this subject, for it is one pregnant with thought and responsibility; but as our allotted space is exhausted, we will recur to it in our next issue, as we have not yet met our contemporaries' questions. The subject of Vital Statistics should be made a government measure, and in its details it should be assimilated as much as possible, to that adopted by Dr. Farre, the Registrar General of England. In the mean while it should become a city measure, and we know of nothing in which one of our City Councillors who would take and carry through the Council, an efficient By-law for this purpose, would so well deserve of his fellow citizens. Its importance is above all considerations of a money nature.

THE QUARANTINE AT GROSSE ISLE.

We are but too happy to hear that this useless establishment is to be discontinued. It has been since its commencement of no real utility to the Province, although it has permitted some parties in connection with it to realize fortunes. The establishment cost £8,000 per annum, and it is proposed to devote £250 per annum to the Marine and Emigrant Hospital at Quebec. Why should not some of that fund be bestowed upon the Montreal General Hospital, whose operations continue through the winter as well as the summer? It is stated that the buildings at Grosse Isle will be maintained in case of their being required at any subsequent period. When it is proved that the quarantine establishment has succeeded in preventing the spread of any contagious disease, then, and only then, ought to be considered the propriety of maintaining them. It has been hitherto of no use whatever as a preventive.

DR. HINGSTON AND THE CORPORATION OF THE CITY OF MONTREAL.

About two years ago, Dr. Hingston of this city, in crossing a canal bridge to visit a patient, was, in consequence of its defectiveness, thrown from his horse, and fractured his clavicle. He brought a suit against the Corporation, and after some litigation and negociation, the damages to him were assessed at $600. This sum the Corporation has lately paid over to him, and with great liberality he has appropriated it as follows: $50 to the Natural History Society; $50 to the Mechanic's Institute; and the balance to the establishment of a Free Hospital for Children in the management of which he has associated with himself, Dr. Wright, Prof. of Materia Medica, McGill College. Dr. Hingston's generous efforts to establish a much needed hospital in our city, deserves the support of every philantropist, and we do most sincerely wish his efforts the most complete success.

THE DAILY BRITISH WHIG.

This Journal in its critique upon our last issue, ventures upon a lesson. It observes that "the contents of the B. A. J. are of too technical a character for us to dilate upon,"—yet it discusses a technicality which we certainly broached, and upon which we are as well informed as the Editor of that Journal can be,

albeit he appears to doubt it. We are aware, and we stated nothing to the contrary, that the License of the Apothecaries' Hall of London is that of the General Practitioner of England, not that of the apothecary as we understand the term here. But we take the liberty of again repeating what we stated in our last number, and what our political contemporary, whose Editor formerly belonged to our ranks, may not like, that the examinations at the time alluded to were not what they ought to have been, but on the contrary a sham (not a "shame" as it was unfortunately erroneously mis-printed) and to this we adhere. The Apothecaries' Hall examinations at that time, were notoriously the lowest of all the "Hall" examinations. But even had Mr. Hoare taken out that license, such as it was, it does not the less absolve him from having lived for many years in wilful violation of an important law of the Province.

NEW SYDENHAM SOCIETY.

Members of the New Sydenham Society are reminded that the subscription is payable on the first of January of each year, in advance. As it is desirable to obtain the works as soon as possible after being issued in England, members are requested to forward their subscriptions to the Local Honorary Secretary, Dr. Fenwick, 70 Craig Street, Montreal, before the 15th April next. We understand that gentleman has made arrangements with a shipping house in Liverpool to secure the more regular delivery of the works. Subscriptions should be forwarded to him in the form of a post office money order for £1 1s. stg., made payable to Jonathan Hutchinson, Esq., at the Finsbury Place Office, London.

CORONER'S INQUEST AT KINGSTON.

Singular Proceedings.

An inquest was held at the General Hospital on Monday 21st. Jan., on adjournment under singular circumstances. On the appointment of Mr. A. Oliver to the vacancy of House Surgeon, Drs. Stewart and Dickson resigned their honorary offices of surgeons to the Hospital, and Drs. O Yates, and Strange were appointed. About Christmas a patient named Thomas Wood, died after the removal of the lower extremity. The operation was performed by Dr. Fowler, assisted by Drs. Strange, H. Yates, and O. Yates. While the man lay unburied, Dr. Stewart attended a Meeting of Hospital Governors, and made use of remarks which the attendant Surgeons considered offensive to them, and injurious to the reputation of the Hospital. Consequently some of them next day applied to Dr. Barker, city Coroner, and demanded an inquest. *Now, the statute says that no Inquest shall be held unless the Coroner has reason to suspect crime or culpable negligence.* In this case, the Coroner knew of none, and those who asked for the inquest admitted of none. Anxious, however, for the truth, and thinking it would be elicited from an impartial witness, the Coroner selected Dr. Bone, Staff Surgeon to the Forces, and requested him to make a post-mortem and report to him. Dr. Bone kindly undertook the task, made the requisite examination, and gave in such a report, as, in the Coroner's opinion, wholly precluded the necessity of any further investigation. This report Dr. Barker forwarded to the Governors of the Hospital, and that ended his part of the business. Not so, Dr. Stewart, who is also a Coroner of the city. He issued his precept and summoned a jury, and two long days were occupied, in the enquiry. We have not been favored with all the evidence, and therefore shall not give part of it, nor shall we allude to the unpleasant scenes which occurred thereat. A very great number of

witnesses were summoned and many of them were examined. The jury took time to consider their verdict, which was as follows:—

[COPY.]

We, the undersigned Jurors, unanimously find that the death of the late Thomas Woods, was not caused by mal-practice on the part of the Surgeons, who performed the amputation and that there does not appear to have been any want of proper attention or treatment on the part of the House Surgeon or other officers of the Hospital. We are further of opinion, that there was no necessity for calling this inquest, and we recommend that the whole of the proceedings be published.

(*Signed,*)

S. P. White, Foreman,	R. N. Reynolds,
M. Scott,	James Campbell,
Joseph Moore,	Thomas Keys,
B. Meadows,	Henry Brown,
R. Tompkins,	Sam. Westlake,
R. M. Horsey,	G. S. Hobert,
William Pillar,	Jas. Watt,

Kingston, January 21st, 1861.

A sense of duty is the sole cause of the above appearing in our pages. We regret that the undignified proceedings which it records, (if the above report be true, and we have seen no contradiction to it,) should have occurred within the limits prescribed for our observation; but the fact being as it is, we feel called upon to chronicle it with a few words of commentary, in order to caution such of our medical brethren in the Upper Province as have been appointed Coroners, and there are a great many, against the weak and unworthy acts into which they may be led. We see no escape for Dr. Stewart from the charge of being actuated by some improper motive in thus arraigning the conduct and judgment of not less than five of his fellow city practitioners, and in straining his mere adventitious right as a Coroner to an extent, that would in our judgment justify the annulling of his commission. Of what protection is the statute against the holding unnecessary and vexatious inquests when interpreted by individuals, who, holding commissions, permit their feelings to warp their judgment? We are glad, however, that the enquiry, though improperly pressed for, was so fully carried out. "A great number of witnesses were examined, and the jury took time to consider their verdict," the more satisfactory must be the result to the public at large, and to Dr. Stewart in particular.

INHALATION OF ETHER.

We received the enclosed letter a few days ago by post, and think that the best way of serving the purposes of the committee is to publish it. We are not aware that either Ether or any of its compounds with chloroform have been ever used in this city for anæsthetic purposes. We have certainly never heard of any deaths from its employment. It is possible that some of our subscribers may be enabled to reply to the questions submitted.

BOSTON, MASSACHUSETTS, U. S.

The question of the entire immunity from danger which is claimed for Anæsthesia produced by Ether, being still under discussion, the Boston Society for Medical Improvement has appointed the undersigned a Committee "to investigate the alleged deaths from the inhalation of SULPHURIC ETHER, and to report thereon."

They would therefore request the Medical Profession, or any person into whose hands this may fall, to communicate to either of them such cases, coming within their own observation, as shall serve to this end; giving the place, time and circumstances of their occurrence, with the mode of inhalation adopted, and, especially, information in regard to the following points:—

1st—*The kind of Ether used, whether pure Sulphuric Ether, Chloric Ether, or Ether combined with Chloroform.*

2d—*The period after inhalation at which death occurred;*—

also any other facts which may enable them to form an opinion on the subject of their investigations.

RICHARD M. HODGES, M.D.
GEORGE HAYWARD, M.D.
SOLOMON D. TOWNSEND, M.D.
CHARLES T. JACKSON, M D.
J. BAXTER UPHAM, M.D.

February, 1861.

CASE OF MALPRACTICE.

We quote the following from the Kingston Daily News, of July 25, copied from tho Toronto Globe; and if Dr. Norris of Fort Erie, or some other physician cognizant of the affair, would kindly furnish us the particulars, we would feel obliged. Malpractice, with regard to midwifery is so common in Canada, that the sooner it is put a stop to the better.

"Some time ago we copied from a western paper a narrative of certain facts connected with the death of a poor Irish woman at Fort Erie, who, it was alleged, had been the victim of malpractice. When seized with the pains of labor she sent for a Dr. Beaman, who subsequently brought to his assistance, from Buffalo, a man named Dayton. An inquest was held on the bodies of the woman and her infant. The precise nature of the verdict we do not know, but the effect of it was to let the 'doctors' go free, much to the delight of some of the citizens of Buffalo, as attested by cheers and a sleigh procession. We have received from William Norris, Esq., M.D., of Fort Erie, a statement purporting to contain accurate details of the matter. On their correctness or incorrectness we can pronounce no opinion; but if they be true the poor woman and her child have been murdered. We cannot publish Dr. Norris' letter—the statements he makes are too revolting; but he says: 'I am willing to brave any consequences which may follow from the tenor of my evidence, corroborated as it is by Drs. Frazer and Burns, and, as to the principal *post mortem* examination appearances, by Drs. White and Cronyn, as also by the Coroner, who is an English practitioner of long standing, who was present during the whole time.' Dr. Norris also says that the County Attorney, Mr. Raymond, does not intend to let the matter rest. The case is one which demands a full and complete investigation, and if the charges made against the 'doctors' are proved, we know of no legal punishment too severe for them."

MALPRACTICE SUIT.

JUDGE'S CHARGE TO THE JURY.

We copy, below, from the *Elmira* (N. Y.) *Daily Press* of Feb. 10th. an interesting charge of the judge in a recent suit for alleged malpractice. We think, if he had been a surgeon, he might have made still another point in favor of the defendants, namely, that even with a stiff knee the patient's condition after the operation was no worse, if not decidedly better, than before. The whole tone of the charge is sensible and properly appreciative of the true responsibility of surgeons in such cases.

This action was brought by Daniel S. Hamilton against Drs. Squire, Wey and Smith, for damages alleged to have been sustained by the Plaintiff in consequence of a surgical operation performed upon his knee by the defendants. The operation consisted in the removal of a loose or floating cartilage from the knee-joint by means of what is known among surgical writers as the *valvular mode of incision*. Inflammation of the joint ensued, its disorganization followed, and the ultimate result was a stiff knee; the limb being slightly flexed and bowed laterally, in consequence of destruction of the articular cartilages, and the expanded extremities of the bones entering into the composition of the joint, on its inner side. Damage was claimed to the amount of $5,000. After a protracted trial, the case was submitted to the jury, in the following charge by Judge Campbell. The jury failed to agree, standing one for plaintiff, and eleven for the defendants.

Gentlemen of the Jury,—Every person who enters a learned profession, whether the law or surgery, undertakes to bring to it the exercise of a reasonable, fair and competent degree of skill.

Invariable success does not attend professional men, any more than those engaged in other pursuits. Indeed, success must with them sometimes depend on other instrumentalities than mere skill. Courts and juries are fallible and may err, and the best advice and labor of counsel in the law may be in vain; and habits of life unknown, and hereditary diseases, and neglect of directions, and carelessness of nurses, may defeat the labors of the most skilful surgeon. Both the lawyer and surgeon, when they undertake professional business, agree to be responsible for the want of ordinary care—such care as ordinarily prudent men bestow upon their business. This is the responsibility which the law imposes upon them. But it is said the professional man is also bound to use his best judgment, and that judgment should be an enlightened one. This is true; but in cases where there is great difference of opinion among the most skilful and experienced as to surgery, where the most eminent men in the profession differ as to the methods of performing operations, the surgeon who possesses the necessary qualifications will not be held responsible for errors of judgment. He will be chargeable with error only when such error arises from want of reasonable, ordinary skill and diligence, especially if the general character of the operation and treatment has been honest and intelligent.

Making an application of these general principles:—

1st. Was this a proper operation under the circumstances of the case?

2d. Was it proper without the bandage or compression?*

3d. Was the valvular method a proper one?

4th. Was the place where the cartilage was taken out a proper one?

5th. Was the after-treatment proper?

To all these questions some of the most eminent surgeons in the State, and I may say among the most eminent in the United States, have given you an affirmative answer. Others, on the part of the plaintiff, who may be equally intelligent, but who have not had equal experience, answer in the negative. Now in such a case, where there is such difference of opinion, and certainly with the experienced men in the defendant's favor, they should not be held liable for an error of judgment, even if you should be of the opinion that they did err.

The operation being thus, for the purposes of this suit, warrantable, and the method, place and treatment proper, was the operation performed, and the after-treatment continued, with reasonable skill and care—such skill and care as would be required at the hands of prudent, competent surgeons.

Now, the contract of a surgeon is not to warrant a cure, except such contract be expressly made. He contracts to exercise his best skill, care and attention. In this particular

* Dr. March, Dr. Markoe and Dr. French, the three surgeons who have operated for the removal of loose cartilages, all unite in saying that the operation is warranted without resort to the bandage.

operation, it appears by the evidence of that eminent surgeon, Dr. March, that he had been uniformly successful. But taking the results of operations by other surgeons, so far as reported, one fourth are *not* successful. It would not do, therefore, to hold up the responsibility of every surgeon in the land equal with that of one of the most eminent.

As to the manner in which the operation was performed, you have the evidence of the defendants, together with that of Mr. Birchfield. If the delay in the operation was caused by the plaintiff, and therefore the time was protracted, the plaintiff cannot recover for any injury caused by such acts of his own.

As to the care and attention after the operation, as I understand, no complaint was made; but, on the contrary, the care and attention were constant, and such as might be expected of a kind and careful surgeon.

I have already observed that, from the evidence, it appears that one fourth of such operations are not successful. The want of success is not necessarily want of skill.

Three fourths of the cases are successful; and if the plaintiff had been among the successful number, if his limb had been entirely restored, he might, like the lame man healed by the Apostle, have "ran and leaped with joy." That it was not successful, is undoubtedly a great misfortune to him. Whether it was the fault of the defendants, is for you to say by your verdict.

You must take this case, and determine it according to the evidence under your oaths.

In the case of Dr. Smith, it is claimed that he had nothing to do with the operation; that he was merely a looker-on, invited by Dr. Squire, as a simple act of courtesy; and that in point of fact he was not present until the operation was nearly completed, and when the chloroform was sent for. If you believe the evidence of the defendants on this point, of course you should render a verdict in his favor.

Then, if you find that this operation was not performed by Dr. Squire and Dr. Wey with ordinary skill, care and diligence, you should find a verdict for the plaintiff.

On the other hand, if you find that they did perform the operation with ordinary skill and care, and such as would be required of surgeons holding a responsible position in their profession, then your verdict should be in favor of the defendants.—*Boston Med. Jour.*

TORONTO MEDICO-CHIRURGICAL SOCIETY.

The Society held a meeting at the *Temperance Hall*, on Wednesday 23rd January, 1861, for the purpose of discussing the constitution. There were present: Drs. Hodder, Wright, Thorburn, Aikin, Lizars, Hall, Ogden, Bull, O'Dea, Lawlor, Agnew, Canniff, Emery, Howson, Augusta, &c.

Dr. Hodder took the chair. Dr. Bull acted as Secretary. After some discussion, the constitution submitted was adopted with few modifications.

At the first ordinary meeting of the Society held at the *Temperance Hall* on the evening of the 12th February, the election of Officers for the ensuing year was completed.

The following is a list of the Society's Officers for 1861 :—

Dr. Hodder,.....	*President.*
Dr. Wright,.....1*st*	*Vice-President.*
Dr. Thorburn,.....2*nd*	*Vice-President.*
Dr. Canniff,.....	*Treasurer.*
Dr. Bull,.....	*Secretary.*
Dr. O'Dea,.....	*Cor. Secretary.*

When the business of the evening was concluded, the President rose and delivered a very able inaugural address, in which he clearly described the duties and importance of Medical Societies in general, as well as the method by which the present growing one may be made of use both to the profession and the public. After the completion of the address, which was repeatedly and

warmly applauded during its delivery, the President favoured the Society with the report of a case of *dislocation of the head of the femur under the arch of the pubes;* which, during the efforts at reduction, had been converted into a dislocation into the *foramen ovale*, previous to its successful replacement. The exceeding great interest of the case provoked a lively controversy which was maintained during the rest of the evening.

The attention of the medical profession is requested to the following epitome of the rules of the Society. As will be seen it is open to all Licentiates of the Province, as well as to those who are engaged in the pursuit of any of the Collateral Sciences.

1. It shall be called the *Toronto Medico-Chirurgical Society.*

2. Its objects are:—To unite the members of the profession in bonds of friendship; to discuss medical subjects, and to cultivate medical literature.

3. It shall hold its meetings on the second Tuesday of every month. To these meetings strangers will be admitted on being introduced either by the person or card of a member.

4. Relates to the list of officers already given.

5. Relates to the election of candidates for office.

6. The Society shall consist of Ordinary, Honorary, and Corresponding Members.

7. No person shall become an ordinary member unless licensed to practise in the Province; or shall have received a Degree or Diploma in Medicine, Surgery, Midwifery; or shall be engaged in the actual pursuit of the Collateral Sciences.

8. Ordinary, Honorary and Corresponding members shall be proposed and seconded at an ordinary meeting. The election will take place at the next meeting; a majority of one third constituting a successful vote.

9. Relates to the method of business and procedure to be gone through at each meeting.

10. Any member wishing to read a paper before the Society shall previously communicate his intention, in writing, to the Secretary.

The remaining 12 rules, with the exception of rule 17, relate to the duties of the Society's Officers, and to the sittings of its members.

Rule 17 above referred to points to the fees payable by each member on admission. The sum of one pound constitutes the annual subscription of ordinary members in Toronto. That of ten shillings for each member residing at any distance exceeding three miles.

[Having received the foregoing statement of minutes from the Corresponding Secretary, we give insertion to it with pleasure, and will be happy to record the further progress of the Society. We certainly wish it every success.—Ed. B. A. J.]

BOTANICAL SOCIETY OF CANADA.

15TH FEBRUARY, 1861.

Dr. Fowler, V. P., afterwards the Rev. Principal Leitch, P. in the chair. About 200 members and visitors were present. 31 new members were admitted.

Mr. Robert Bell, attached to the Geological Survey of Canada, Mr. McIver, Koussance, and M. Guerin Meneville, Paris, were elected Corresponding members.

Donations to the library were announced from Principal Dawson, Montreal, Mr. Burrowes, Law Lecturer, Queen's College, Prof. Fowler, and Mr. Holmes, Kingston, and Mr. Mead, New York. Various donations of seeds were presented, including several novelties from Paris, which will be distributed to members.

Dr. Fife Fowler exhibited specimens of Materia Medica, including fruit of the colocynth plant (Cucumis colocynthis), Rhizome of Lastræa Filix-mas, the male fern; seeds of Croton Tiglium; specimens of Kooso, Veratrum viride, &c.

From Prof. Inglis, Prince of Wales' College, Charlottetown, P. E. Island, there was a specimen of Hamamelis virginica, a species widely distributed over the North American Continent.

Mr. McIver exhibited specimens of tea-leaves from Kumaon, "from large bushes, each bush containing 5 or 6 (or sometimes more) plants, of 2 to 4 feet high, and 2 or 3 feet in diameter. We pluck the young or new sprouting leaves, such as are shown, for making the tea. The large green leaves are left untouched, as they crumble and break, and cannot be rolled or manipulated. These young leaves are soft and pliant, and can be kneaded without breaking."

Prof. Dawson exhibited a new dye of great richness, resembling cochineal, prepared from an insect found for the first time last summer on a black spruce (Abies nigra, Poir) near Kingston.

The following papers were read:—

1. On the silk-worm and other fibre yielding insects, and the growth of their food plants in Canada. By Mrs. Lawson.

2. On the Hubbard squash. By Thomas Briggs, jun.

3. What to observe in Canadian lichens. By W. Lauder Lindsay, M. D., F.L.S., Hon. Mem.

Specimens illustrating these papers were exhibited. The papers will be published at length in the Society's annals, which will be ready for distribution to members in April.

CENSUS OF SOME OF THE PRINCIPAL TOWNS OF CANADA, AND THEIR RELATIVE INCREASE.

	1852.	1861.	Increase.
Montreal,	57,715	101,602	43,887
Quebec,	42,052	62,138	20,086
Ottawa,	7,760	14,754	6,994
Kingston,	11,585	13,779	2,194
London,	7,035	11,581	4,546
Toronto,	30,775	44,425	13,650
Hamilton,	14,112	18,000	3,888

At a future period we will extend this list.

We put the following on record as far as this city is concerned, for future reference in respect to sanitary considerations:—

Special Returns required by Act of Parliament of Seminaries, Religious Houses, &c., &c., &c.,	3,520
St. Mary's Ward,	9,265
St. James "	12,298
St. Lewis "	12,537
East "	4,881
Centre "	1,425
West "	1,802
St. Lawrence Ward,	11,768
St. Antoine "	16,546
St. Ann "	16,117
	91,169
Continuation of the City Suburbs outside the City Boundary, from a Return furnished,	10,423
	101,602

LICENTIATES OF THE MEDICAL BOARD OF UPPER CANADA.

Continued from the old series of the British American Journal. Vol. 6, page 516.

Amos McCrea	January 11,	1851
Hart Proudfoot	January 11,	1851
Charles Gardner	January 11,	1851
Robert Gibbing Westropp	January 11,	1851
Samuel Miller	January 11.	1851
David Dulmadge Wright	January 25,	1851
William Henry Evatt	February 15,	1851
Thomas Clark	April 12,	1851
William Henry Harvey	April 12,	1851
Ezra Foote	April 12,	1851
Theodore Hopkins	April 12,	1851
Matthew F. Haney	April 12,	1851
Alexander R. Stephen	April 12,	1851
James Hacket	April 12,	1851
John Hyndman	April 12,	1851
John S. Morrison	April 19,	1851
Charles Septimus Eastwood, M.D	May 24,	1851
William Cameron Chewett, M.D	May 31,	1851
John James Mason, M.R.C.S.L	June 21,	1851
Achille Beaubien	June 28,	1851
John Smith, M.R.C.S.L	July 5,	1851
Humphrey Desmond	July 12,	1851
Walter Bayne Geikie	July 12,	1851
James Ross	July 12,	1851
Joshua Fidler	July 12,	1851
Lorenzo Closson	July 19,	1851
Alexander Kerr, M.R.C.S.L	August 9,	1851
John Thomas Small, M.D., M.R.C.S.L	August 23,	1851
John Young Bown, M.D., M.R.C.S.L	August 25,	1851
John Robert McCullough	October 25,	1851
George Paton	October 25,	1851
David Tucker, M.B	October 25,	1851
William Henry Cole, M.B	November 12,	1851
Joseph Carbert	January 17,	1852
Robert A. Henry	January 17,	1852
William Potter	January 31,	1852
Robert Henry Swyney, M.D	February 28,	1852
Hickman Rose Daniell	February 28,	1852
George D. Morton	April 17,	1853
George Gillespie	April 17,	1852
John B. Lundy	April 22,	1852
George Duncan	April 22,	1852
Robert H. Dee	April 22,	1852
George Couse	May 1,	1852
Hotchkins Haynes, M.D	July 16,	1852
Selim W. Davison	July 24,	1852
Jeremiah W. Sovereign	July 24,	1852
David S. Bowlby	July 24,	1852
Thomas Beatty	July 31,	1852
James Carrol	August 14,	1852
James Stephen	October 9,	1852
John Rosebrugh	October 16,	1852
John A. Morris	October 16,	1852
Hartley Samuel Laycock	October 16,	1852
Michael Barrett, B.A	October 23,	1852
Thomas Jerram Orton	October 23,	1852
Peter Tertius Kimpson, M.R.C.S.L	March 12,	1853
Augustus Henry Bucke	April 16,	1853
Orrin Cotton Wood	April 16,	1853
Joseph Motherside	April 23,	1853
John Bristol	April 23,	1853
Charles James Covernton	April 23,	1853
Elias Vernon	April 23,	1853
Walter McKay	April 23,	1853

John M. Ault	April 23,	1853
Norman Baker	April 30,	1853
John Closson	April 30,	1853
Walter Boyd, M.D	April 30,	1853
William C. Eastwood, M.D	April 30,	1853
Charles Freeman, M.D	April 30,	1853
William B. MacKenzie, M.D	May 7,	1853
Christopher Leggo	May 14,	1853
Anson Bucke, M,R.C.S.L	May 20,	1853
Richard Cowan, M.R.C.S.L	June 4,	1853
Robert Carter, M.R.C.S.E	July 6,	1853
Egerton Griffin	July 9,	1853
Jacob Baxter	July 9,	1853
Thomas Faynes Symes	July 16,	1853
John Reid	July 16,	1853
Thomas Haggard	July 16,	1853
Peter Stewart	July 16,	1853
James McLaren	July 16,	1853
Isaiah White	July 16,	1853
John Gittens Young, M.R.C.S.L	July 30,	1853
Cornelius James Philbrick, F.R.C.S.E	August 27,	1853
Michael Lavell	October 15,	1853
W. C. Van Buskirk	October 15,	1853
James Rowell	October 22,	1853
John Lightbody	October 22,	1853
Thomas Glashan, M.R.C.S.E	November 5,	1853
Henry Turner	November 26,	1853
Vesey Agmondisham Brown, M.R.C.S.E., late 23d Regt	December 17,	1853
William Canniff	January 14,	1854
Everitt H. Coleman	January 14,	1854
Andrew Fisher	January 14,	1854
John Wise Considine, M.R.C S.E	February 11,	1854
James Hunter Robertson, M.D	March 11,	1854
Edward B. Haight	March 11,	1854
John D. K. Williams	April 15,	1854
William R. Smith	April 15,	1854
John K. Graham	April 15,	1854
Edwy Joseph Ogden	April 22,	1854
Daniel Cline *	April 22,	1854
Henry McNaughton	April 22,	1854
James W. R. Dickson	April 29,	1854
Augustus James Thibodo, M.A., M.B	April 29,	1854
William McPherson	June 3,	1854
Charles Henry Claudge	July 8,	1854
Alexander Patullo	July 15,	1854
Thomas W. Poole	July 15,	1854
James Kennedy	July 15,	1854
James W. Chadwick	July 29,	1854
Charles Tozer	August 26,	1854
Thomas Benson	August 26,	1854
Thomas Wheeler	September 9,	1854
Thomas Cowdry	September 9,	1854
John Handcock O'Neill	October 14,	1854
Francis Bull	October 14,	1854
Francis McManus Russell, M.D. E., M.R.C.S.E.	October 28,	1854
Lawrence McLaughlin	December 2.	1854
John Mair, M.D	January 27,	1855
William Robert Gilmor, M.B	February 3,	1855
Alfred Harper	February 3,	1855
Alexander Burns	February 3,	1855
Daniel Cline	February 3,	1855
Angus McKillar	February 10,	1855
W. Cowan	February 28,	1855
David Macintosh	March 10,	1855

* Daniel Cline is licensed to practice surgery only, as by notification in the Official Gazette of 3d June, 1854.

Robert Christie, M.D.	April 14,	1855
Edward Albert Paget	April 21,	1855
Edwin Albert Paget	April 28,	1855
Aaron Walter Gamble	April 28,	1855
Weston L. Horriman, M.D.	April 28,	1855
John F. Mercer, M.D.	May 12,	1855
William S. Scott, M.D.	May 12,	1855
Daniel Chambers, M.D.	May 12,	1855
Genus Thompson Cooper	May 19,	1855
Edward Theodore Brown, M.B.	June 9,	1855
Richard Paul Lewis, M.B.	June 9,	1855
Thomas C. Scholfield	July 7,	1855
Isaac Ryall, M.B.	July 7,	1855
Robert R. Addison	July 21,	1855
Malcolm Ranney	July 21,	1855
John Salmon, M.B.	July 21,	1855
William Murphy	July 28,	1855

To be continued.

EDITORIAL SUMMARY.

Poisonous Millinery.—Every one has heard of poisonous confectionery, and poisonous wall paper, but few we apprehend have suspected that ladies' dresses may be rendered poisonous. This appears to be fact, however. Erdmann and Zurick have startled the Berlin ladies with the discovery, that some green tarlatans were coloured with arseniate of copper. The colour was merely fixed on with starch paste, so that the least friction sufficed to remove it. Erdmann also speaks of a colouring matter known as cochineal red, which contains a good deal of arsenic in the form of arseniate of alumina. At Berlin, Mr. Zurich was officially appointed to investigate the matter, and he found a good many specimens of green tarlatans which were coloured with the arsenical preparation applied superficially, as described by Erdmann. Certainly the air of a ball-room in which many of such dresses were rubbed together, would become rather strongly charged with poisonous matter.—*Chemical News.*

A Colony consumed by Fever.—The news has recently reached England of the outbreak of a fierce epidemic of yellow fever on the African coast. Suddenly exploding with terrible intensity amongst a small community of Europeans, it has swept the settlement in which it appeared with the besom of desolation, destroying the whole colony. Of all the Europeans, not one had escaped the disease: only one had escaped death. The surgeons, who remained at their post, were all devoted to death. The *Army and Navy Gazette* furnishes the painful details of the ravages which this disease has thus committed at M'Carthy Island, River Gambia. Amongst the deaths which have to be deplored, are those of Staff Assistant Surgeon Thomas Clayton Beale, who was attacked on the 19th of July, and died on the 21st; Staff Assistant Surgeon Trestrail, who was taken ill on the 2nd of August, and expired on the 7th; Staff Assistant Surgeon Charles D. Campbell, who was seized on the 17th of August, and who sank under the effects of the scourge on the 25th. The only European remaining alive on the island up to the last accounts, which came down to the 19th September, was Captain Frazer, who had also suffered from a severe attack, but was convalescent. The remittent fever, which is usually so prevalent in the island, had been observable; but no cause can be assigned for the outbreak of the pestilence which had assumed so malignant a form.—*Lancet*, 3rd November, 1860.

John Hunter.—The Council of the Royal College of Surgeons has caused a beautiful memorial tablet to be placed over the site of the grave of Hunter, whose remains now rest in Westminster Abbey, with the following inscription: "Beneath are deposited the remains of John Hunter. Born at Long Calderwood, Lanarkshire, N. B., on the 14th February, 1728; died in London on the 16th October, 1793. His remains were

removed from the church of St. Martin's-in-the-fields to this Abbey on the 28th March, 1859. The Royal College of Surgeons of England have placed this tablet over the grave of Hunter to record their admiration of his genius as a gifted interpreter of the Divine power and wisdom at work in the laws of organic life, and their grateful veneration for his services to mankind as the founder of scientific surgery." This inscription is deeply cut in brass, of a Gothic design, inlaid in a slab of polished granite. Mr. Weekes is intrusted with the model of the statue, which is to be of marble, and to be placed in the Hunterian Museum —*Ed. Medical Journal*, Oct., 1860.

Dr. Rigby's Library.—At a late meeting of the Obstetrical Society of London, a letter from the executors of the estate of the late Dr. Rigby, announced that that gentleman, in his will, had bequeathed to the Society the whole of his valuable Obstetrical Library, consisting of upwards of 200 volumes, among which were included a complete series of the works of the first Dr. Rigby, and many interesting lectures in M.S.S. taken by the two Rigbys.

BIRTHS.

In this city on the 8th February, the wife of Dr. Roberts of a daughter.

In Carleton Place, on the 12th instant, the wife of Dr. W. H. Hurd, of a daughter.

In Woodstock, on the 2nd instant, the wife of Dr. William Scott, of a son.

At Lambton Village, Etobicoke, on the 11th instant, the wife of Thomas Beatty, M.D., of a son.

MARRIAGES.

At St. Remi, on the 11th February, by the Rev. J. Gravil, Francois G. Hamilton, Esq., N.P., to Marie E. P. Dugas, only daughter of Aimé Dugas, M.D., of St. Remi.

In Toronto, on the 2nd instant, by the Rev. W. Sanson, John Clarke, Captain, Commanding Depot 100th Prince of Wales Royal Canadian Regiment, to Hannah Maria, eldest daughter of the late Honorable Christopher Widmer, M.D., M.R.C.S.L.

DEATHS.

In Walpole, on Sunday, February 17th, Esther, wife of Dr. T. S. Harrison, Jun. aged 29.

In Hamilton, on the morning of the 26th February, Gerald O'Reilly, M.D., aged 53 years, for twenty-six years a leading physician of that city.

In Montreal, on the 16th February, Edith, daughter of W. E. Scott, M.D., Professor of Anatomy, McGill College, aged 3 years and 9 months.

In Philadelphia, on the 4th instant, Thomas Harris, M.D., U. S. Navy, aged 78 years, the oldest medical officer of the United States Navy.

At Munich, lately, Dr. Tredeman, the ancient Physiologist, aged 87 years.

At Würzburg, lately, M. Textor, M.D., aged 78, formerly Professor of Surgery in the University at that place, and well known from his resection of joints.

At Philadelphia, on the 21st November last, Major John Lacompte, of the United States corps of Engineers, aged 77. He was celebrated for his contributions to the sciences of Botany and Zoology.

BOOKS, &c., RECEIVED.

ANNUAL REPORT of the Normal, Model, Grammar and Common Schools in Upper Canada for the year 1859, with Appendices; by the Chief Superintendent of Education, printed by order of the Legislative Assembly: Quebec, Thompson & Co., 1860. 8vo. pampl., p. 178.

LIVES of Eminent American Physicians and Surgeons of the nineteenth century; edited by Samuel D. Gross, M.D., Professor of Surgery in the Jefferson Medical College of Philadelphia. Philadelphia: Lindsay and Blakiston. Montreal: Dawson & Sons. Royal, 8vo. price $3·50.

THEORY AND PRACTICE OF THE MOVEMENT CURE, &c., by the Swedish system of localized movements; by Charles Fayette Taylor, M.D., with illustrations. Philadelphia, Lindsay and Blakiston. Montreal: B. Dawson & Sons, 1861. Royal, 12mo., price $1·00.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT *MONTREAL* IN FEBRUARY, 1861.

By Archibald Hall, M.D.

Day.	DAILY MEANS OF THE: Barometer corrected and reduced to F. 32°	Temperature of the Air.	Dew Point.	Relative Humidity.	Ozone.	CLOUDS: Amount.	CLOUDS: General description	THERMOMETER: Maximum read at 9, P. M.	THERMOMETER: Minimum read at 7, A. M.	WIND: Its general Direction and Mean Force from 0 Calm to 10 Violent Hurricane.	RAIN AND SNOW: Rain in 24 hrs read at 10, A.M.	RAIN AND SNOW: Snow in 24 hrs read at 10 A.M.	RAIN AND SNOW: Total rain and melted snow	GENERAL OBSERVATIONS.
	Inc's.	°	°	0.100	0.10	0.10		°	°		0.10	Inch.	Inch.	Inch.	
1	29.981	21.8	14.2	.71	9.0	10.0	Cu. St.	28.8	12.2	W. S.W.	1.0	.....	.....	.....	
2	29.584	20.6	17.2	.89	9.5	10.0	Nimb.	22.5	16.6	N.N.E	2.6	.....	6.40	0.58	Slight rain and hail.
3	30.111	7.9	— 4.0	.62	3.5	3.0	Cu. St.	24.7	— 2.0	W.	1.6	Inap.	0.75	0.15	Zodiacal light.
4	30.276	— 1.6	— 6.0	.83	8.0	7.0	Nimb.	8.3	—15.5	N.	1.0	.....	.....	.....	
5	30.042	23.1	16.2	.74	8.0	10.0	Cu. St.	30.6	2.9	S.W.	1.3	.....	0.40	0.01	
6	29.451	27.1	22.0	.81	8.5	10.0	Cu. St.	35.8	21.0	S.W.	3.3	.....	0.50	0.01	
7	29.597	— 6.6	—10.8	.79	7.5	9.6	Cu. St.	23.2	—17.5	N.	4.6	.....	2.00	0.26	
8	30.409	—22.0	—28.3	.44	3.5	0.6	Strat.	—14.5	—34.0	W.	3.6	.....	3.00	0.29	Zodiacal light.
9	30.565	— 6.3	—12.2	.65	5.5	4.3	Strat.	— 0.6	—20.3	S.W.	1.0	.....	.....	.....	Solar Halo.
10	30.206	22.3	18.7	.86	8.7	10.0	Cu. St.	32.4	— 4.6	W. S.W.	1.0	.....	0.25	0.14	Fine hail. Rain.
11	30.014	37.0	33.9	.89	9.0	10.0	Nimb.	43.2	24.0	S.	1.3	0.07	.....	0.07	Solar halo. Do.
12	29.519	41.3	38.7	.91	8.5	7.3	Nimb.	48.5	38.5	S.S.W.	2.0	0.68	.....	0.68	Fog. a. m. Do.
13	29.906	30.8	25.1	.80	5.0	6.6	Cu. St.	39.5	25.8	W.	1.6	0.14	Inap.	0.14	Zodiacal light.
14	30.184	24.3	17.5	.73	5.5	5.0	Cir. St.	31.1	19.0	W.N.W.	1.0	.....	.....	.....	Solar Halo.
15	29.731	23.3	20.1	.89	9.5	10.0	Nimb.	32.0	19.6	N.E.	3.3	.....	2.25	0.22	Rain and hail.
16	29.638	26.9	22.2	.83	10.0	6.6	Nimb.	35.3	19.6	N.	0.6	0.06	8.00	0.86	Auroral light. Double arch.
17	29.239	31.3	29.8	.95	10.0	10.0	Nimb.	36.2	20.8	W.N.W.	3.3	.....	6.50	0.59	Slight rain and snow.
18	29.653	30.0	25.2	.82	6.5	10.0	Cu. St.	38.2	26.1	W.	2.0	Inap.	1.50	0.19	
19	29.897	20.0	12.0	.71	5.0	6.6	Cu.	29.9	14.7	S.W.	1.0	.....	.....	.....	Lunar Halo.
20	29.442	26.9	25.0	.85	8.5	5.6	Nimb.	37.2	10.2	S.	1.0	.....	1.20	0.16	
21	29.533	24.7	19.8	.81	9.5	10.0	Nimb.	39.8	16.1	W.N.W.	2.6	.....	2.00	0.22	
22	30.080	9.8	— 0.6	.69	5.0	0.6	Cu.	19.0	4.5	W.N.W.	3.6	.....	Inap.	Inap.	
23	29.765	7.2	0.1	.77	9.0	10.0	Nimb.	13.5	4.0	N.N.E.	3.0	.....	.....	.....	[snow
24	29.782	15.7	6.8	.60	3.5	3.3	Cu. St.	25.0	8.6	W.N.W.	2.3	0.15	3.00	0.52	Fine hail and sleet ending in
25	30 061	23.6	16.0	.72	5.0	8.3	Cu. St.	36.3	5.2	S.W.	4.0	.....	.....	.....	Lunar Halo.
26	30.009	37.3	32.5	.85	7.0	8.6	Cu. St.	45.7	23.5	W.	2.0	.....	.....	.....	Solar Halo.
27	30.125	38.7	32.1	.79	7.5	3.3	Cu. St.	48.2	25.8	S.W.	1.3	.....	.....	.....	
28	30.015	39.9	33.3	.78	8.5	7.0	Cu. St.	48.6	34.8	S.W.	2.3	.....	.....	.....	
...	.....	.....	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	
...	.....	.....	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	
...	.....	.....	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S's															
M's	29.896	20.57	15.35	.781	.....	.....	.....	29.94	10.63	.....	.....	1.10	37.75	5.09	

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT *TORONTO* IN FEBRUARY, 1861.

Compiled from the Records of the Magnetic Observatory.

Day.	DAILY MEANS OF THE: Barometer reduced to 32° Fah.	Temperature of the Air.	Relative Humidity.	Amount of Cloudiness.	THERMOMETER: Max'm read at 6, A.M. of next day.	THERMOMETER: 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	29.4623	20.50	93	9	33.2	5.0	22.0	N. 76 E.	8.09	.....	7.0	.700		7th.—Very stormy day, wind during forenoon 34 and 35 miles per h'ur, heavy snow and temperature falling rapidly.
2	.3722	26.85	92	10	30.4	22.7	23.0	N. 52 W.	11.86	.....	.....	.....		
3	.....	Sun	day		22.4	9.3	.....	S. 85 W.	7.19	.....	.....	.....		
4	.8367	26.83	89	10	31.4	12.1	23.5	S. 59 W.	7.63	.....	Inap.	Inap.		
5	.6638	26.67	87	8	30.2	25.6	22.0	S. 57 W.	8.19	.....	0.1	.010		
6	.2400	24.55	77	9	35.0	22.8	27.0	N. 88 W.	16.16	.....	2.0	.200		8th.—Day very keen moderating towards night.
7	.5288	—7.72	81	8	9.0	— 9.8	—16.0	N. 44 W.	19.76	.....	8.0	.800		
8	30.1002	—5.23	90	9	8.2	—20.8	— 5.5	N. 60 W.	6.39	.....	0.5	.050		
9	29.9505	18.10	89	10	29.8	— 2.6	18.0	N. 70 E.	7.62	.....	Inap.	Inap.		10th.—From 12 p.m. of 7th to 2 p.m., a difference of temperature occurred of 63°8 in 62 hours, temperature of day 18.25 above average.
10	.....	Sun	day		43.0	16.9	.....	N. 49 E.	3.97	.....	.....	.....		
11	.3950	41.52	95	10	44.6	37.6	41.0	N. 50 E.	4.08	0.300	.....	.300		
12	.2663	33.70	85	9	39.0	34.0	24.0	S. 57 W.	13.39	.....	0.2	.020		
13	.7528	30.28	86	6	34.2	29.6	24.0	N. 55 W.	12.37	.....	.....	.....		
14	.6620	28.85	82	10	32.0	25.0	20.0	N. 63 W.	20.06	0.045	1.0	.145		Stormy night, rain freezing as it fell.
15	.1075	32.05	87	10	33.4	28.2	30.0	S. 76 E.	10.24	.....	6.0	.600		
16	.2135	31.27	79	9	34.8	31.0	25.5	S. 58 W.	8.22	.....	0.3	.030		Solar Halo.
17	.....	Sun	day		32.2	25.0	.....	S. 72 W.	10.78	.....	0.1	.010		
18	.5048	27.25	79	10	30.2	27.0	22.5	S. 76 W.	9.78	.....	.....	.....		
19	.3987	27.50	90	9	32.6	19.2	25.0	S. 19 E.	9.32	.....	2.0	.200		
20	.1625	31.40	81	8	36.0	27.5	27.0	S. 85 W.	13.34	.....	0.5	.050		
21	.5528	23.87	70	5	29.2	22.5	16.0	N. 60 W.	20.17	.....	Inap.	Inap.		
22	.7163	21.02	85	9	26.0	13.2	17.0	N. 76 E.	11.13	.430	2.0	.200		
23	.1757	29.60	85	10	36.4	16.0	29.5	S. 57 W.	16.43	.....	Inap.	.430		
24	.....	Sun	day		19.7	8.0	.....	N. 59 W.	14.57	.....	.....	.....		
25	.7338	29.67	76	8	39.2	8.1	24.0	S. 45 W.	12.58	.....	.....	.....		
26	.7613	33.40	76	1	44.8	27.8	32.5	N. 21 W.	1.41	.....	.....	.....		Lunar Halo.
27	.8467	36.15	77	4	40.5	25.4	35.0	N. 77 W.	5.12	.....	.....	.....		Faint Auroral light.
28	.6550	37.32	84	10	46.0	32.8	32.0	N. 54 W.	6.18	.040	.....	.040		
...	.....	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....		
...	.....	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....		
...	.....	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....		
S's										0.815	29.7	3.785		
M's	29.5441	26.06	84	8	32.37	18.54	22.46	N. 77 W.	10.58					