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Art. LXXX—CASE OF CYSTO-SARCOMATOUS TUMOUR IN THE ABDOMEN.

Read at the Medico-Chirurgical Society of Montreal, Jan. 1849.

By Dr. Crawford, Lecturer on Clinical Medicine, McGill College.

William Roberts, æt. 35, a labourer, an Englishman, of sober habits, twelve years resident in Canada, was admitted into the Montreal General Hospital on the 4th Nov. 1848, for a swelling of the abdomen, of a dropsical character. He stated that about the end of July last, he was seized with a pain, of not a severe character, in the left renal region, for which he could not assign any cause. About this time he also observed that he made urine in small quantity; his bowels were regular, and appetite pretty good.

About the middle of August, he observed that the left side of his abdomen was slightly enlarged, the swelling extending from the situation of the pain towards the umbilicus; and in a short time he could trace a distinct tumour of an oblong shape. The pain increased, and he became affected with diarrhœa. He supposed that he could observe his evacuations to be somewhat puriform.

He continued pretty much in this state, till he applied for admission into hospital.

At that period, his abdomen was considerably swelled, particularly to the left side, where it was very prominent. There was a very palpable fluctuation discernable on percussion generally over the abdomen, but several parts of the swelling indicated considerable solidity, particularly to the right of the umbilicus, where a distinct tumour (about the size of a large fist) could be easily traced. The right iliac region gave a tympanitic sound, as also did a curved line from the epigastrium to the pubis, which on some occasions was more distended than at others, and could easily be traced. It appeared evidently connected with the large intestines. His general health did not seem much affected; his countenance calm, and color natural and ruddy, breathing easy, pulse and appetite good; he made urine freely, and his bowels were regular; his sleep was in some degree interfered with by the pain, and general discomfort from the size of tumor.

The abdomen was rubbed with mercurial ointment till his mouth became sore, without any effect being produced on the tumor; and as soon as the mouth became sufficiently well, the ointment, in combination with iodine, was again repeated, but with no more advantage, the tumor apparently increasing. In the beginning of December, an exploring trochar was passed into three places in the swelling, and about six ounces of a limpid straw-colored fluid evacuated from two of the punctures—only a drop of blood issuing from the third, which was made into the more solid tumour to the right of the umbilicus. The diagnosis I formed was hydated tumors. On the 11th, a hydrocele trochar was passed into three different parts of the swelling, two of the openings being made close together, to determine if any fluid could be removed after it had ceased to flow from the first, which had yielded about three ounces of limpid straw-colored serum; about the same quantity also was evacuated from the second puncture, and five or six ounces of bloody serum discharged from the third, evidently showing that three different cysts had been opened at a short distance from each other. The bloody colored serum spontaneously coagulated, speedily and firmly in the containing vessel, producing as large a mass of fibrine as would have been separated from a similar quantity of blood. Some degree of abdominal tenderness followed the puncturing, which, however, yielded to fomentations. The pulse remained soft, small, and about ninety; and there was no further indication of inflammatory action. The swelling did not appear to have been at all reduced; the abdomen measured in circumference thirty-nine and a half inches; but as the memorandum of the previous measurement was lost, an accurate comparison could not be made.

On the 28th he was tapped to the left and below the umbilicus, in a line towards the spine of the ilium. The trochar on being passed the usual depth, did not give exit to any fluid, but on being passed deeper, and piercing a more distant sac (the sensation of which was very evident,) sixteen ounces of bloody serum were drawn off, which coagulated firmly, and exhibited a buffy coatlike inflammatory blood; during the operation the pulse was small, intermitting, and 100; it became regular afterwards. For some days before the operation he had felt more pain, and his countenance indicated distress; there was a slight hectic flush and some cough, which much aggravated the abdominal pain, but in other respects he did not think himself worse. His cough, however, became more frequent and distressing; from the pain it caused, * strength and appetite failing, pulse 100, weak, by degrees his rest became broken by dyspnæa, which prevented his lying down; his symptoms all became worse, and he died on the 3rd January, 1849.

The Autopsy.—On opening the abdominal cavity, the parietes of which were very thin—a large tumor presented itself, of very varied color, purplish and red, like an inflamed serous membrane, while the peritoneum throughout was in a perfectly healthy condition;

* No pathological changes could at any time be detected in the lungs or heart by means of the stethoscope.

and even the peritoneum covering of the tumor, which enveloped its entire surface, was perfectly transparent and colorless, exhibiting the color of the subjacent growth through it. The tumor occupied the whole of the left side of the cavity of the abdomen, with the exception of a small space where the stomach (much contracted) and a very diminutive spleen were situated. It stretched from the right hypochondrium into the false pelvis, filling up the iliac fossa, and all the lumbar region; stretching across the spine, it pushed the left kidney before it, to the right side of the umbilicus, which constituted the dense and solid portion of the tumor, formerly noticed. The whole of the intestines (with the exception of the descending colon) lay to the right side of the spine; this portion of the colon extended from the scrobiculus cordis, in front of the tumor, down to the symphisis pubis, forming a slight curve to the left of the umbilicus, being closely adherent to the tumor by a serous-looking membrane, but being easily separated from it. There were no traces of recent inflammation. The liver was atrophied to about one half its normal size. The left lobe lay against the upper portion of the tumor, and was attenuated to a thin flap; the right lobe was about half its natural size, a large cavity appearing under the ribs, being occupied by the intestines instead of the liver. The pancreas lay behind and attached to the posterior surface of the tumor, and did not exceed a quarter of an inch in thickness. The left kidney lay imbedded in the front of the tumor, and was scarcely half its natural size, being very flat and thin, but in other respects normal and healthy; the left ureter ran along the wall of the tumour. All these viscera, although apparently closely connected with the morbid growth, were very easily separated from it. The right kidney was healthy and in situ. The lungs were perfectly healthy, with the exception of some old pleural adhesions. The pericardium contained about four ounces of fluid. The heart was large, but in other respects apparently normal.

The tumor (which had been accidentally burst, on bringing it forward to remove some slight attachments to the spine and aorta) was about the full size of a uterus at the ninth month of pregnancy. It presented a tolerably even surface, but of varied structure and solidity, as well as color. About four quarts of extremely fœtid blackish or brown fluid, had escaped into the abdomen, from the rent in the posterior part of the sac, which was very thin at this part. Several large yellow fibrinous masses, like jelly, also were discharged: these substances speedily discharged a quantity of lympid serum, and became much reduced in size, appearing as it were to melt away. On examining the tumor from its posterior or rent surface, a large cavity appeared divided into compartments, or cells of various dimensions,—containing dark fluid, the yellow jelly-looking substance, and portions resembling the slough of cellular texture; in parts it presented the appearance of a lung filled with vomicæ. The anterior and remaining portions of the tumor were made up of a variety of structures, and innumerable cells containing limpid straw-colored or bloody-looking fluid. Many portions were thick and cartilagenous, while others were delicate and membranous. In the walls as well as the open cavities, innumerable delicate cysts, or hydatids, were found, and in no part that was cut into were they wanting. They were attached to these cells generally by about one-fourth of their surface, the remaining portion consisting of a very thin membrane, so delicate as scarcely to bear any examination, ruptured on the slightest touch. This *membrane appeared throughout very vascular and like inflamed peritoneum.*

The growth would appear to be the cystic tumor or cysto-sarcoma, described by Miller and some other authors, and to be different from the hydatid—a large number of which I removed from the axilla of a female a few years ago. These were all contained in one large sac, and were of oval shapes, unattached and independent of each other, and of all sizes from that of duck shot to that of a bantam's egg, floating in a bloody serum. On accidentally rupturing the general sac, the gush of a bloody fluid from a tumor seated so near the axillary artery, alarmed me no little, fearing I had opened into an aneurysmal tumour. I caused pressure to be made over the subclavian artery; and thrusting my fingers into the cavity, I turned out several hydateds, which relieved me considerably of the difficulty I anticipated from having to deal with an aneurysmal sac. In this case I removed the sac, together with its contents, and the case did very well.

Art. LXXXI.—CASE OF LACERATED WOUND WITHIN THE ORBIT.

By George Griffin, Esquire,

Surgeon, (H.P.) 85th Light Infantry, Quebec.

In 1826–7, the 32nd regiment, in which I was then assistant surgeon, was stationed at Oldham and other places near Manchester,—a detachment occupied the barracks at Stockport, under the command of Major Gascoigne; these men were, on a certain day, practising firing with blank cartridge in the barrack yard—after the parade was over, the commanding officer ordered such men whose muskets had hung fire, to fall in four or five paces in the front of the main body, as is usually done. Under his order they fired, and immediately they did so,—a man in the front rank of the main body in their rear, exclaimed, "that he was hit by something," and on examining the part injured, a somewhat jagged but tolerably clean wound, was seen at the lower edge of the under eyelid of the right eye, just at the edge of the orbit; there was trifling hæmorrhage. The civilian surgeon, who had charge of the detachment, was immediately sent for—he brought the edges of the wound together, and directed the man to be kept quiet. Two or three hours after, the Major went to see him, found him "complaining a good deal—the eye somewhat protruded from the socket, and bloodshot;" he sent for another surgeon, who removed the adhesive plaster, and, on a close examination of the wound, detected some extraneous body within it; he fixed the man's head by assistants, and with a very strong pair of forceps, removed a piece of gun-barrel, of the size, form and weight indicated below. It was wedged

into the orbital-plate of the temporal bone. I saw the man the next day, and received the above account from the surgeon, who told me, it required considerable force, and an enlargement of the wound, to extract the piece of iron; there was no exfoliation or appearance of bone, but trifling hæmorrhage, and the wound healed readily. The man (John Berge) died of cholera, at Quebec, in 1832; there was so much of distress and confusion at the time, that I was unable to examine the state of the part, which I had long the intention of doing—if afforded the opportunity. The piece of iron barrel was found to have been "torn" from the muzzle of one of the fire-locks, and is in my possession now.

Weight—5 drachms, or 300 grains.

Length—2 inches and 6-10ths of an inch.

Breadth at the broadest part—9-10ths of an inch.

NOTE.—When extracted from the orbit, the concave part lay uppermost, or, I presume, the protrusion of the eye must have been greater.

Esplanade, Quebec, Feb. 5, 1849.

ART. LXXXII.—CASE OF UN-UNITED FRACTURE OF THE HUMERUS, TREATED SUCCESSFULLY BY OPERATION.

By HAMNETT HILL, M. R. C. S. L., Bytown.

Alexander Lackie, æt. 16, of the Township of Mac-Nab, on the Madawaska River, met with the following injury on the 28th October, 1847:—He was engaged chopping, in company with two or three other young men, when by some misfortune he was struck by the limb of a falling tree on the right arm, which fractured the humerus about three or four inches above the elbow joint; the integuments were a good deal contused, but no laceration or wound took place. The nearest professional assistance was at a distance of eight miles from the residence of the patient, so that it was about six hours before the medical man arrived, who set the arm, putting it up in the usual way, with four splints, and supporting it with a sling; the arm was then allowed to remain without any further attendance on the part of the Surgeon for the space of five weeks, at the expiration of which time the splints were removed for the first time. After having been re-applied, and another five or six weeks having elapsed, the patient's mother took them off; and the discovery was then made that no union whatever had taken place, nor was there the slightest attempt to produce any. The Medical attendant was again sent for; friction was employed, and the limb again done up as before for three weeks; unfortunately, however, no improvement took place in this interval of time. A consultation was now held with another medical man, and friction was again employed for a short time, and subsequently it was resolved to insert a seton, which was kept open for the space of a fortnight without producing any inflammation or benefit whatever. From the appearance of the cicatrices in the skin it does not appear that the seton could have traversed between the bones, but would seem to have been inserted close to the upper extremity of the fracture, which was excessively oblique. From the period of insertion of the seton nothing whatever had been done until the latter end of October, 1848, when he was brought down to Bytown for the benefit of my opinion as to the case.

At that date the appearance of the arm was almost natural, with the exception of its having become much smaller than the left, from muscular wasting consequent on the entire want of use for the preceding twelve months. The outline indeed from the point of the acromion to the elbow was perfectly straight, whilst the limb was allowed to hang to the side, but immediately he was desired to make any effort to bend the arm or lift it, then the angular projections of the separated humerus were evident to the eye, and on examination it was found to possess all the liberty of motion of an enarthrodial articulation; in short, what is commonly called a false joint had been formed. The original course of the fracture was easily discernable, and found to have extended from nearly the middle of the humerus on its anterior surface, proceeding downwards and backwards at about an angle of twenty degrees or so, with the axis of the bone. The ends of the separated portion seemed somewhat rounded and smooth, but their middle parts seemed to be connected in some way or other by a kind of semi-cartilaginous or ligamentous growth; nothing, however, like callus had been deposited, and the edges of the bones appeared as perfectly defined as if they had been but recently separated by the saw. In examining the limb even roughly, no pain whatever was excited, but it was perfectly useless, and had of course been so since the receipt of the injury.

As to the cause of the want of union, I will not pretend to say whether it could be attributed to the bandages and other apparatus not remaining so well applied as to retain the fractured bones in apposition and free from motion, or whether the evil was in the "vis medicatrix," and indisposition in constitution to deposit callus or earthy matter, although from the young man's present appearance one would pronounce him to be a favorable subject for union to progress with ordinary rapidity under the usual circumstance; at all events, I was not called upon to decide this point, but as to whether any thing could now be done to effect union.

After having consulted with Dr. A. Morson, and Dr. Laing, Assistant Staff Surgeon, it was our unanimous opinion that it was a favorable case for cutting down on the fracture and giving two new surfaces to the bone; accordingly, on the 1st of last Nov., I performed the following operation in company with those gentlemen. Being extremely anxious to submit to any treatment that would afford him the probability of regaining the use of his arm, he was as firm as a rock in submitting himself to our hands, either with or without the use of chloroform; but as there existed no reason for not putting him under its influence, we availed ourselves of its agency; the effect was almost instantaneous.

Having previously placed him on a chair in the upright position, the operation was commenced by making an incision of about four and a half inches long in the axis of the arm, beginning just below the insertion of the deltoid muscle on the outside of the arm, and con-

tinuing it nearly to within an inch and a half of the external condyle, in a line corresponding with the junction of the edge of the brachialis internus and triceps muscles. This free incision carried down to the bone, enabled this structure to be fully exposed, both ends of which were then carefully dissected out from their muscular attachments, keeping the scalpel very close to the bones on the inner side to guard against injury to the brachial vessels. When a sufficient amount of separation was effected to evert the ends of the fractured humerus from the surrounding muscular structure, a piece of sheet tin was placed between the inner side of the fracture and the brachial vessels to protect them from injury during the operation of the saw, which was now called into use, and a very thin lamina of the smoothened surfaces of each portion of the humerus was thus excised, just enough to expose perfect bony surface. The semi-cartilaginous growth that had connected the two portions of bone was also removed, lest it might endanger the approximation of the new surface. The edges of the wound were brought together by a few sutures, and the arm flexed at the elbow, was then done up in a pasteboard apparatus that had been previously adapted. There was very little hœmorrhage, and although he was able to converse during the operation, which lasted fifteen minutes, and even declared afterwards that he felt the pain, it was very evident that such was not the case, from the entire absence of any tremor, contractile effort, or other indication of suffering. On the second day after the operation, so much inflammatory action came on, that it became requisite to remove the pasteboard and substitute three splints, leaving the wound exposed, so that evaporating lotions might be applied to the arm, the patient being confined to the bed. This plan of treatment was successful in arresting the further progress of inflammation, but the attendant swelling was hardly reduced until a month after the operation, consequently it rendered the efficient application of splints perfectly impossible until about the beginning of the fifth week. Of course during the whole of this time the greatest care was taken to keep the arm quiet and preserve the bones in apposition; and this was effected by a leather strap passing over the right clavicle and under the point of the elbow, which preserved the length of the arm to the greatest nicety, whilst the forearm was encased in pasteboard and kept confined to the neck, and also fastened to the body. In addition to these measures, advantage was also taken of the previous hint afforded of the possibility of his constitution not being disposed to deposit lime, and therefore to assist nature as much as possible in the process of union, he was ordered to take a tea-spoonful of the concentrated solution of muriate of lime three times a-day, together with nourishing diet and beer. Under this treatment his general health improved very rapidly, and at the end of the sixth week it became evident that the process of union had commenced. From this period the splints were kept very closely applied, so that it was impossible the least motion could have extended to the fracture; and at the end of the tenth week union was complete. There is no deformity whatever, except in a little shortening, and that only to the extent of half an inch, which can hardly interfere with any motion or power in the arm.

Bytown, February 15, 1849.

Art. XXXIII.—TRANSATLANTIC CORRESPONDENCE.

By Wm. Wright, M.D.,
Licentiate of the Royal College of Surgeons, Edinburgh.

GLASGOW.

Medical Lectures are delivered at two Institutions called Universities, the Glasgow and the Andersonian, at private Medical Schools, and at the residences of some Practitioners. The tickets of the two former, and of several of the latter, qualify their possessors for final examinations. Cliniques are given at the Royal Infirmary. Degrees are conferred solely by the Glasgow University. The license *ad practicandum* by the Faculty of Physicians and Surgeons. All the Medical men are General Practitioners.

The University of Glasgow is situated in High Street, and was established in 1450. It grants the degrees of M. D. and of M. C. The fee for the first is £25, for the second £10 10s. The qualifications are the same for both: they are certificates of moral character; of being 21 years of age; of attendance upon Medical lectures for four years, one of which at least must have been in this University; of having completed one or more courses of lectures on each branch of the profession, of six months duration, with the exception of Forensic Medicine and Botany, if of less extent, two courses are deemed equivalent to one. Of two years' attendance at an hospital, containing at least 80 beds, one-half the time must be spent in the medical or surgical wards, according to the degree desired; and of having lodged an English Essay with the Clerk of the Senate two months prior to the graduation day, on a medical or surgical topic, as in the last qualification. Prior to the professional examination, the candidate's knowledge of Latin is tested. The principal Professors are Dr. Burns, of Surgery, Dr. T. Thomson, of Chemistry; Dr. J. M. Pagan, of Midwifery; Dr. Couper, of Materia Medica; Dr. A. Buchanan, of Institutes of Medicine; Dr. Thomson, of Medicine; and Dr. Rainy, of Forensic Medicine. Dr. Mackenzie is the Waltonian Lecturer on the Eye. All, with the exception of the second, lecture within the University's walls. The chemical class rooms and laboratory are in a building in Shuffle Street; the former is very capacious and lofty, the largest of the kind in this city; it contains fourteen rows of seats raised one over the other, and extending from end to end of the room in the form of bows; only four were occupied, and these by about forty auditors, a larger number than attended any of the other classes; at the Midwifery there were but fifteen present; and at the Materia Medica only thirteen more. Each lecture is delivered at the same hour as the one corresponding to it in the Andersonian University. All the Students, except the Medical, wear scarlet togas, none have any characteristic head dress. In order to insure attendance, each must in-

scribe his name once a fortnight in a register, stating the lectures, &c., which he attends.

At the eastern extremity of the University buildings stands an edifice, known as the *Hunterian Museum.* It was erected in 1804, and is said to have cost Dr. Wm. Hunter, whose collection it contains, £100,000. It possesses numerous rich specimens of minerals and fossils; of plants, shells, fishes, beasts and birds of various kinds; of rare and valuable manuscripts and printed books; of coins and medals, with many other productions of nature and art. Visitors pay one shilling for admittance:

The Andersonian University, so called after its founder, the late John Anderson, Professor of Natural Philosophy in the University of Glasgow, was incorporated in 1796, and is situated in George's Street. Its Medical Lecturers are Dr. Laurie, Surgery, at 9, A.M.; Dr. Penny, Chemistry, at 10, A.M., and Practical Chemistry, 11, A.M.; Dr. Patterson, Midwifery, 11, A.M.; Dr. Anderson, Medicine, 12, A.M.; Dr. M. S. Buchanan, Anatomy, 1, P.M., and Practical Anatomy, 5, P.M.; Dr. Easton, Materia Medica, 4, P.M.; Dr. Crawford, Forensic Medicine, 7, P.M.; Dr. Adams, Institutes of Medicine, 6, P.M.; Mr. Bell, Botany. The fee for each course is £2 2s.,—£1 less than what it is in the Glasgow University. Both classes of Anatomy, if taken together, are £3 13s. The saloon for dissection is open from 9, A.M., to 4, P.M.; and attached to it there have been opened a reading room and museum, for the use of the anatomical Students. An extensive laboratory for pursuing practical and analytical chemistry is open daily from 11 to 3 o'clock. Fee to the medical library for the session, 2s. 6d. *The University Museum* is restricted to specimens of Zoology, Geology, Chemistry, Mineralogy, and Antiquities; it is open to all the students gratis, and to a stranger for 6d. The classes are more largely attended, (50–60 at the Chemical, 36 at the Surgical, and 30 at the Obstetric.) The generality of the lectures are better and more pleasingly delivered. The class rooms not so well arranged, less clean, and smaller; and the students less refined and prepossessing exteriorly than those of the Glasgow University. Among the evening popular lectures delivered here are those by Dr. Hunter, on Human and Comparative Anatomy, every Wednesday, at half-past eight o'clock. Fee for three months, 5s.

The Faculty of Physicians and Surgeons in Enoch's Square was incorporated by a charter from James VI, in 1599. Every candidate for its diploma must adduce proof of having attended two courses of lectures on Surgery, two on Anatomy, and one on each of these—Medicine, Materia Medica, Midwifery, Chemistry, Practical Chemistry, Practical Anatomy, Clinical Medicine, Clinical Surgery, Forensic Medicine, and Botany; each to be of 6 months' length, except the last two, which may cease in half that time; an hospital for eighteen months; a Surgeon's or Apothecary's shop six months; study for four winter sessions or three winter and two summer sessions. The trials on a Medical, or Surgical Essay, a Latin and professional examination. Fee for the diploma, £7 7s.

Hospitals.—The chief are the Royal Infirmary, the Fever, the Lying-in, the Cholera, the Lock, and the Eye Infirmary. The term is added to several Institutions that are merely alms houses.

The Royal Infirmary is at the most remote extremity of High Street. Its Medical Staff comprises two attending Physicians, Drs. Wise and Easton; two attending Surgeons, Drs. Flemming and Lyon; one Physician to the Fever and Cholera department, Dr. M'Gregor; and one consulting Surgeon, Dr. M. S. Buchanan. Each is elected for four years, serving their first six months at the dispensary, the next six months in charge of the fever wards, the two succeeding years as a daily in-door attendant, and the last year as a consulting Surgeon. When he arrives for his visit a large bell is tolled by the janitor, as a signal to the pupils, dressers and clerks. Bedside remarks are daily made, and Clinical Lectures delivered thus: —*Medicine*: Monday, Dr. Weir; Thursday, Dr. Easton. *Surgery*: Tuesday, Dr. Flemming; Friday, Dr. Lyon. The hour of visit is 2, P.M.; of inspection, 2, P.M.; of operation, 2, P.M.; of lecture, 3, P.M. Fee for two years attendance, including Medical and Surgical Practice and Clinical Lectures, £7 12s.; for the third year, rendering perpetual £1 3s. 6d.; for Surgeons producing their diplomas for half a year, £3 5s. 6d. Its intern patients amount to about 3000, and its extern to 6000, annually; the latter are prescribed for, but receive no medicines. On the 22nd January there were 51 patients in Dr. Flemming's, one-fourth of its wards. It contains from 200 to 250 beds, and so does the fever hospital attached to it; three wards of which are allotted to cases of Cholera. The average number of surgical operations performed in the year is 120. Twelve dressers are appointed quarterly from the pupils, who have been at least three months in attendance, and who desire the office. There are six clinical clerks, one for the dispensary, one for the fever, two for the medical, and two for the surgical wards. Each, with the exception of the first, who pays no fee, holds office for two years, and must fill for an equal period the three last grades consecutively, commencing with the first of them; their costs are £5, £15, £25. The qualifications for a clerkship are twenty years of age, twelve months hospital attendance, three months dressership, and having passed or being engaged in his third medical session. If he have been a clerk for two years in a Provincial hospital, he may at once become a Surgeon's clerk by paying £35. He resides in the hospital, and has a furnished apartment for himself. He enters in a journal the history and symptoms of every recent case, and reads them at the visit to the medical attendant, who dictates any additions and all future daily reports, if the case be sufficiently important; he treats it on its admission if urgent, and subsequently has its charge and management to a certain extent, the medical attendant acting as superintendent. No portentous volume is hawked round the wards; each has its own journal in which the prescription is written, if a report be entered. He is present at the consultations, and there reads the particulars of the case under notice. At the clinique of his master he sits by his

side in the area of the room, apart from the students. He performs the inspections *post mortem* of his own patients. Students by leaving their names with the apothecary are allowed the use of the journal for copying cases between the hours of 11 and 12, A.M.; and of 6 and 7, P.M. They are not allowed to remain in the hospital beyond these, the visit and lecture hours. Notices of inspections, operations, and lectures, are always posted up in the hall.

The majority of the surgical cases were diseases of the joints, as the knee, ankle, wrist and hip; of an inflammatory and scrofulous nature, the greater number idiopatic, the lesser traumatic. Fractures—the most uncommon were, 1, through the tuberosity of the tibia, knee joint not implicated; cured by retaining leg in a MacIntyre's splint, bandages, &c. 2, of the cervix humeri, in a very aged woman; bony union complete. 3, of the humerus, curing spontaneously; its details are given in another section. 4, of the inferior maxillary in two places, also described below: Diseases of bones, as eecrosis, caries, nodes: Stumps of the amputations mostly healing by granulation, a few attacked by erysipelas, and others that had been attacked by hospital gangrene: Burns and scalds of the third degree of intensity: Syphilis, primary and secondary: Dislocations—1, of the os femoris into the thyroid foramen; the clerk reduced it by the ordinary procedure, while the patient was in a state of syncope from the accident. 2, of os femoris on dorsum ilii; it was out for several days and required the use of the pulleys: Erysipelas, chiefly œdematous and phlegmonous: Ulcers, several phagedenic and sloughing; many were very extensive,—they were often connected with diseased bone, frequently resulted from syphilis, burns, and phlegmonous erysipelas; one was associated with ecthyma; those from syphilis were small and circular, had regular edges and coppery-colored granulations, covered in part with a yellowish viscid matter; they occurred in groups, confined to one limb, usually the l g, and withstood every remedy except mercury, healing when the system bore testimony to its action. One female who had them was only fourteen years of age!—Of three cases of abscess in the gluteal region, one was due to diseased vertebræ, the second to diseased hip, and the third uncomplicated with any lesion. The last was twice valvularly tapped, with much relief and no subsequent evil. To the patients with the two former, cod liver oil and genenous diet were given internally; locally issues were applied near the diseased bones. Among the causes originating not a few of the cases, were violent injuries, as a railroad car passing over the knee joint: Machinery—in one tearing off the skin from the whole of the hand and lower part of the forearm; in another producing the injuries hereafter mentioned:—Kick of a horse, producing compound and comminuted fractures of the femur; death following two days after: Combustion and boiling water or steam, followed by sloughing and ulceration: Violent bruises, compressions, and falls, as off the yard-arm, down ships' holds, &c.: Erysipelas and gangrene, (vide abstract of Dr. Lyon's clinique,) as an example, the greatest part of the glans penis a slough, surrounded by phagadœna; on admission there was only a small simple chancre.

(To be Continued.)

Art. LXXXIV.—ON THE OPERATION OF PHYSICAL AGENCIES IN THE FUNCTIONS OF ORGANIZED BODIES, WITH SUGGESTIONS AS TO THE NATURE OF CHOLERA.

By Dr. G. Russell, Montreal.

Believing that there is nothing so obscure in the phenomena of organization, which a thorough knowledge of the physical laws of matter would not tend to illuminate, I beg leave to solicit attention to certain facts and experiments, the importance of which does not seem to be generally appreciated, in reference to the great objects of our profession.

The data upon which I have endeavoured to trace out a theory, are not of my own observation; they are abridged from several respectable authorities,—and combined in the hope of directing the attention of others, better circumstanced than the writer, for observation and experiment, to that chain of relations, which connects the physical, physiological, and pathological sciences.

The brilliant modern discoveries in geology, chemistry and physiology, all tend to dissolve those barriers which have so long separated and kept distinct the various departments of natural philosophy.

Human knowledge has always been divided into two kinds of facts,—namely, those which could be traced to natural causes, which were considered legitimate objects of investigation; and those which were supposed to depend on special causes, beyond the reach of science, into the nature of which it was deemed either a species of insanity or sacrilege to enquire. But the daring philosophy of modern times, is gradually extending the bounderies of the former, at the expense of the latter. The traveller on a dark night can only discern the position and relations of the objects immediately surrounding him; his beclouded vision can perceive no connection between the dim objects glimmering in the distance; he cannot tell whether they belong to earth or heaven; and his benighted soul is thus induced to ascribe them to supernatural agencies; but as the light of morning advances, as the range of his vision becomes more extended, he gradually discovers his position in relation to everything within the bounds of the horizon. Thus the progressive mind of man is redeeming natural phenomena from the dominion of ignorance; and it will continue to do so, until all the facts of nature, of which we can become cognizant, will ultimately arrange themselves into one grand system of natural philosophy; at least such is the faith and hope of the writer.

The phenomena of organic life, have always been considered infinitely mysterious and unapproachable. Not only the vulgar, but even the most learned men, have, up to a recent period, entertained this opinion—an opinion which has done much to retard the progress of physiology. The student of Nature has been prevented from entering the rich storehouse of physiological wealth, by discovering the word *vitality*, which

indolence and empiricism have stamped upon its portals. But what can resist the power of the galvanic battery, the result of that electric frog-shiver, accidentally discovered by the wife of Galvani. The battery, indeed, has been well named, for there is no difficulty in physical or physiological science, which it does not seem likely to *batter down*.

The *British and Foreign Medical Review*, for April, 1847, contains a critique on a work by Professor Mattencci, of the University of Pisa, on the physical laws of organic life. In speaking of endosmose and exosmose, the *Reviewer* says:—

"Every one admits that these currents are due to molecular attractions of the same nature with those concerned in the ordinary operations of capillarity: but in the alteration in the conditions, there is a marked alteration in the results, and physical science has not yet succeeded in fully accounting for the phenomena. If we say that the form of the blood corpuscles may be changed by endosmose, we express in a concise way the fact, that if they be placed in pure water, or in diluted serum, there will be a passage of fluids towards their interior, which will distend, and even burst them, whilst, if they be placed in a solution of salt or sugar of greater density than their own contents, the chief current of fluid will take place in the opposite direction—and the bloody corpuscles will be emptied. With the ultimate causes the physiologist has nothing to do, until physical investigation shall have determined them, which we have the authority of Professor Mattencci for asserting, has not yet been effected. For, although it might not seem difficult to give a general explanation of the fact, that when two liquids of different densities are separated from each other, by a porous membrane, the more rapid current should be that of the rarer fluid towards the denser. There are many variations, and exceptional phenomena, for which no such general explanation is adequate to account:—for instance, when alcohol and water are employed, the principal current or endosmose is from the water towards the alcohol, although the latter is the less dense of the two. A fact still more difficult of explanation is the agency of sulphuretted hydrogen in immediately checking the process."

Now it will be my endeavour to prove:—1st, That *endosmose*, *exosmose*, secretion, absorption, imbibition, &c., are no other than modifications of capillary attraction. 2nd, That capillarity, cohesive attraction or affinity, are modifications of electrical attractions. 3rd, That electricity is a single element. 4th, That the Asiatic cholera is produced by a deficiency of electricity in the locality where the disease prevails, causing powerful currents from the sanguiferous system, towards the mucous membrane of the alimentary canal. And if I can satisfy the reader that those positions are sound, I shall likewise remove much of the difficulty referred to by the Reviewer; as well as assist in placing the treatment of cholera on a scientific basis. For many of the facts and experiments to which I will refer, I am indebted to Professor Draper's work, on the Physiology of Plants.

1st, It is well known, that when a solid body is partly immersed in a liquid, the liquid is elevated or depressed around the sides of the solid, according to the liability of the latter to be, or not to be moistened by the former. Thus, if a glass rod be dipped in water, the liquid will be elevated immediately around it, whereas, if it be dipped into mercury the latter will be depressed. In the same manner, if a small tube, open at both ends, be plunged into a liquid, the latter will be raised or depressed to a degree proportioned to the smallness of the diameter of the tube; but if the tube exceed a quarter of an inch in diameter, the smallest possible elevation or depression of the liquid will take place. These phenomena will not be affected by the rarification or condensation of the atmosphere, but they will be modified by temperature, the variation diminishing with an increase of heat. There is one important fact to be borne in mind, which may thus be illustrated:—Water will be raised in a tube to a certain height, but if you take a tube of the same diameter, but shorter than the height indicated, then the water will be raised to the top, but it will not flow over, unless means be adopted to remove the liquid as it rises to the upper extremity, with this latter condition, however, the water will continue to rise through the tube, as long as there is a supply. In the wick of a lamp this condition is provided by combustion, which carries off the oil which is raised to the flame, by *capillary* attraction. So also in a spirit lamp, as long as the extinguisher is on, no evaporation can take place, but when removed, evaporation immediately commences, and by this all the alcohol may be dissipated. Again, if you take two vessels, one containing water, and the other alcohol, and passing between them a capillary tube filled with water, the water, as soon as it comes in contact with the alcohol, will be taken up and dissolved by the latter, so that there will be a constant flow of the water towards the alcohol. From these facts it will be understood, how combustion, evaporation or solution, may produce a flow of liquid through a capillary tube, proportioned in rapidity to the dissolving power.

Several of the substances, such as unglazed porcelain, alumina, slate, &c., as well as vegetable and animal tissues may all be considered as congeries of capillary tubes, seeing that they all imbibe liquids in the manner above described.

Bladder is easier moistened by water than by alcohol. Now, if you fill a bladder with alcohol and immerse it in water, it will be found, on the principle before stated, that the water will pass through the bladder more rapidly than the alcohol can escape, and by this means the bladder may be extended until it bursts.

"If litmus water be placed on one side of a piece of bladder, and alcohol on the other, the water will forsake the colouring matter, to pass through the bladder, and unite with the alcohol.

"If ferrocyanide of potassa be tied up in a section of intestine, and immersed in a solution of proto-sulphate of iron,—Prusian blue will be deposited on the one side of the intestine, but not on the other.

"If a solution of oxalic acid be placed on one side of a membrane, and lime water on the other, clouds of insoluble oxalate of lime will form on the side of the lime water, but the other side will be pellucid.

"If a volume of nitrogen gas in a soap bubble, or under any suitable membrane, be exposed to atmospheric air—decomposition of that air will result, its oxygen passing through the membrane, to form atmospheric air with the nitrogen within.

"If a quantity of commercial alcohol be tied up in a bladder, and freely exposed to the air, the water in union with the alcohol will pass through the pores of the bladder, and gradually evaporate away, leaving the alcohol much stronger."

If, over the mouth of a cylindrical jar, a thin sheet of India rubber is tied, and the jar be exposed to an atmosphere of ammonia, or protoxide of nitrogen, in the course of a short time, by the ingress of the atmosphere, a pressure is created tending to rupture the membrane outwards. From these facts a most interesting theory

of the circulation of sap in vegetables, and of the blood in animals, has been deduced. By this theory, the circulation of the blood in insects, fishes and cold-blooded animals, the development of acardiac monsters, the accumulation of blood on the right side of the heart in man after death, with many other phenomena unexplainable by any other theory, have been satisfactorily accounted for.

2nd, Assuming then, that *endosmose*, secretion, absorption, imbibation, &c., are nothing but modifications of the phenomenon of capillary attraction, we will now enquire, whether such phenomena can be explained by reference to general principles. It is by an answer to this question that we must establish the validity of our first position. *What is the cause of capillary attraction?*

"If a circular disc of glass be placed on the surface of mercury, it will adhere with a certain force, which may be measured by means of a balance; but the glass may be raised from the mercury, without bringing any particles of the latter along with it. If a disc of the same kind, be placed on the surface of water, it will also adhere, and you cannot raise it again without raising some of the water likewise, *i. e.*, the glass will be wetted. Now there cannot be the least doubt that the same *cause* is in operation here, as that which produces pore-action, or capillary attraction; and from a series of experiments the following laws have been deduced:—

1. If the force of attraction of the particles of a solid for the particles of a fluid, be not equal to half the cohesive force of the latter for each other, the fluids will refuse to pass through a pore of that solid substance, and in capillary vessels consisting of it, the fluid will be depressed below its hydrostatic level.

2. If the force of attraction of the particles of a solid for those of a liquid exceeds half the force of the latter for each other, but is not equal to the whole force; other fluids will pass through pores formed of that solid substance; and in capillary vessels consisting of it, will rise above its hydrostatic level.

3. If the force of attraction of the particles for those of a liquid, exceed the whole cohesion of the latter, *chemical union ensues.*

"By tracing cohesive and capillary attraction to the same cause, much advantage is gained, because it simplifies physiological investigations.

"Let us suppose a plane of glass capable of being elevated by an insulating handle, to be resting on the surface of mercury, contained in an insulating vessel. Let the mercury be connected with an electrometer, by means of a wire. Now, as long as the glass plane and the mercury are in contact, the electrometer evinces no disturbance; but as soon as the plane is raised by the handle, electricity is instantly developed, and the gold leaves diverge. By employing another electroscope, it will be found, that the glass is positively, and the mercury negatively, electrified, which, I think, should be proof positive that electricity was the cause of their adhesion. A cause of attraction being thus developed, it would be very unphilosophical to seek for other agencies, especially where one so competent to produce all the effects is seen to exist.

"If the same experiment is performed, substituting water for mercury, no electricity will be developed, and the reason is obvious—no separation has taken place between the glass and the water; the glass is wetted, therefore the particles of the water have only been separated from each other.

"This difficulty being dismissed, it would seem to follow, according to the hypothesis indicated by the foregoing experiments, —that if two solids adhere to a certain fluid, with forces differing in amount, they should develope, upon rupture, quantities of electricity, in the same ratio. As a general result, the balance and electrometer prove this to be the case. Bees' wax, which adheres to mercury, with much less force than gum lac, developes likewise much less electricity. Gum lac which adheres less strongly than glass, likewise developes much less electricity—much depends, however, on the conducting power and other conditions of the substances employed. *Great variability in the results is often observed, even when the same materials are used at different times.* Gay Lussac found that it required a weight sometimes of 158, and sometimes 296 grammes to detach a certain disc of glass from mercury, depending on *causes for which he could not satisfactorily account.*" Does not such variability indicate the influence over such phenomena of that insidious, mighty, and all-pervading agent, with the general laws of which, we have yet so much to learn?

"The best method of showing that the voltaic battery has entire control over capillary attraction, is to take a shallow vessel containing a quantity of mercury, and place upon it a drop of water. On making the drop communicate with the positive electrode of a battery, and the mercury with the negative, in a moment the drop loses its rounded form, and spreads out in a thin sheet on the metalic surface, completely wetting it, and *as the tension of the battery increases, the drop expands more and more, in proportion to the number of plates employed.*

"Again—water will pass with great rapidity through a chink, the width of which is not more than half a millionth part of an inch; provided it can wet both sides of that chink,—but if that condition is not fulfilled, it fails to pass, even though the width should be increased to upwards of one hundred and forty-four times its former dimensions.

"If you take a glass tube, half an inch in diameter, and grind one end of it very exact,—place it on the surface of pure mercury, and pour water into the upper end, the water will not escape at the chink between the mercury and glass, because it does not wet the former; but if a platina wire be inserted into the tube and connected with the positive electrode of a battery, while the mercury, by means of another wire, is connected with the negative electrode, then the water will begin to flow through the chink, and spread on the mercury, until it gets below the wire which is inserted in the tube.

"In a tube small enough to exhibit capillary attraction, the same phenomena will take place, which proves that, under such circumstances, the water is driven out by an active force, for, by breaking the galvanic circle and by raising the tube a little from the mercury, the water will again rise by the force of capillary attraction.

"If two quantities of water are separated from each other by a membranous partition, and one of them made positive and the other negative, all the water in contact with the positive pole will escape into the negative side, passing through the membrane by capillary attraction."

In those facts, I think we have abundant evidence of the identity of the capillary and electrical forces, which will receive further confirmation in the consideration of the positions yet to be examined.

3rd, I believe electricity to be a single fluid.

There are three facts which form the basis, and must be taken into consideration, in all reasoning upon the nature of the electric fluid:—

First,—Two bodies positively electrified repel each other.

Second,—One body positively and another negatively electrified, attract each other.

Third,—Two bodies negatively electrified repel each other.

The theory of Dufay is, that there are two fluids,—the one positive, or vitreous; the other negative, or resinous. The particles of either fluid repel particles of the same kind, but they have a powerful attraction for those of the opposite electricity, and matter. By this hypothesis, the facts stated, may be explained.

The Franklin theory asserts, that there is but one fluid, the particles of which repel each other, and possess a powerful attraction for matter. This doctrine explained the two first facts, but failed to afford a satisfactory reason for the third,—namely, how two balls deprived of electricity, could have a repelling influence upon each other. To obviate this difficulty, it has been

supposed, that the simple particles of matter have as great an aversion to each, as the particles of electricity have for those of their own kind. I must confess, that this double theory seemed to me very unsatisfactory, and likewise less simple and natural than that of a single electric fluid. I have also found, that some of the ablest writers who have supported Dufay were often compelled to speak, as if electricity was only one element. On the other hand, the repelling power, which was ascribed to *inert* matter, in order to render the single theory admissable, appeared to me, still more objectionable; because I reflected, that if the particles of simple matter are capable of influencing each other at a sensible distance, it must be through some essential medium, and that medium might as well be considered another electricity as not, seeing that equal power was ascribed to it. Had it not been for this difficulty, in all probability, the double theory would never have been mooted.

It may be deemed presumption in me to offer anything like an original idea, upon a subject which has occupied the attention of so many profound minds. Nevertheless, I cannot help being convinced, that truth will gain more by the independent thought of the humblest votary of science, than it will by the efforts of a superior intellect, who shelters himself within the pale of mere human authority—however exalted that authority may be.

I never could understand what some writers meant, when they spoke of electricity as being a mere "condition of matter." Therefore, I must presume that an agent capable of producing such wonderful results is *something*, and that something may as readily be known by the name of *electric fluid*, as by any other appellation. I will now state briefly, my own ideas of this subtle agent.

I believe in the theory of a single fluid. I believe that it exists in combination with all bodies in a condensed and latent state, and in this state, is the cause of all cohesive and chemical attraction. The quantity of electricity evolved when a metal is under solution in an acid, being proportional to the dissolving process, is in perfect harmony with this idea. It exists also in a free state, having an attraction in different degrees, for every other kind of matter. In this state it may be the identical cause of gravitation. Bodies in their natural state, have a capacity for receiving more or less of it upon their surfaces. A body with the greater capacity, will always be positive to another body with an inferior capacity, while in their natural state, and when their particles can be brought within the sphere of each others influence, they will unite. I believe matter, *per se*, to be perfectly inert. All this will be acknowledged to be in perfect harmony with the principles of electrical science, according to the Franklin theory. But how is the third fact to be accounted for? Why do two balls negatively electrified, fly from each other, when brought together, suspended by silken threads? The answer is—because they have no mutual attraction, they being denuded of free electricity, which gathers around all bodies in their natural state, while there is an attraction (gravitation if you will) for the free electricity of the atmosphere, and surrounding bodies, on all sides but that presented to each other —thus, they are not repelled by, but attracted from, each other. Why is mercury depressed around a glass rod that is plunged into it? It is not because the glass repels the liquid metal, but, according to the rule before adverted to, because the attraction of the liquid for the glass is not half the attraction of the particles of the liquid for each other. If you place a piece of ice in the focus of a concave mirror, which is reflected upon another mirror, in the focus of which a thermometer is placed,—why is the mercury depressed? Not, surely, because cold is an active principle, like caloric, which raises the mercury when a heated ball is substituted for the ice. Any school-boy who had studied the mere rudiments of natural philosophy might inform the sages of the double theory, that the series of reflections, in those two cases, were quite the reverse of each other.

In my humble opinion, this simple difficulty in the Franklin theory has done much to retard the progress of electrical science. Kane, in his excellent work on the "elements of chemistry," treating of chemical affinity, says:—"Two bodies in combination, are like two pith balls which mutually adhere, but of which the attraction is permanent, from the electricities not being discharged. How do these bodies acquire their oppositely excited state? and why, if their condition resembles that of ordinary electricity, do they remain combined when their opposite fluids might unite,—and neutralization being produced, all combination cease? These two questions have not yet been answered." So says Dr. Kane, and in my humble judgment they never can be answered by the double theory, under which he labours. By the more simple method his questions are not difficult to solve; but it is quite possible that my confidence in the matter may arise from the want of more extended acquaintance with the subject. But this same author in page 199, gives me some encouragement to bring forward the leading idea humbly contended for in this paper. He says:—"It is quite possible that hereafter some sublime generalization may embrace the phenomena of heat, of light and of electricity; of cohesion and gravity, as well as of chemical affinity, within one law, and indicate how by various modifications of *a single agent*, their separate peculiarities may arise." I have not the vanity to suppose that I will ever accomplish what the author thinks possible, still I am convinced, that in a scientific point of view, my cause is a noble one, however feebly I may be able to maintain it.

(To be Continued.)

ART. LXXXV.—*The Unfettered Canadian. Vol.* I, *No.* 1. *Medical Reform, asserting the rights and duty of every man to investigate and choose for himself, in relation to the philosophy and means of health.* ROBERT DICK, EDITOR. *January*, 1849. Brockville, C.W., 1849.

Such is the queer title of a queerer periodical, the first number of which we have just received. It is a "counterblaste" against the Act of Incorporation of the Profession of Upper Canada, and King James' one against tobacco, was not fulminated half so strongly.

"Unfettered," as the Canadian Thompsonian boasts himself, he glories in his freedom from an intimacy with the various articles of the materia medica, yet he proclaims himself everywhere as fettered to the employment of Lobelia, cayenne and steam. "Unfettered," he "thunders the death knell of medical intolerance," and "sounds the shrill (piping!) notes of alarm." A "magazine" is forthwith issued,—we thanked our stars that it proved not an "infernal machine," and contained no powder, so full of sound and fury was it.

After announcing the object and plan of this "magazine," the editor states, that he sends the present number to one hundred gentlemen, each of whom is expected to obtain ten subscribers at 5s each, the amount to be remitted at the receipt of the second number: after which, the editor pledges himself to continue the Journal for twelve months; then follows a critical examination of the Upper Canada Act of Incorporation, an operation performed much to the editor's satisfaction, who winds up his remarks in the following complacent manner:—"Let none, therefore, accuse us of enthusiasm, for no zeal, however ardent, can soar above the magnitude and importance of our theme." This is succeeded by "a regular dialogue," between the ghosts of deceased physicians who, by Mr. Dick's magic wand, are made to "burst their cerements" and "revisit us in pale glimpses of the moon." Next follows the Constitution of the Thompsonian Medical Reform Association, adopted Dec. 12, 1848; and the remainder consists of Thompsonian letters, a temperance song, and gleanings, profane and religious, to amuse all tastes. In this respect it is most decidedly "unfettered;" for Thompsonianism "pales its ineffectual fire" before three-fourths of the number is completed.

ART. LXXXVI.—*Report to the Commissioners of the Temporary Lunatic Asylum at Beauport.* Quebec: January, 1849.

This is the first report of the above institution, and, as it contains a short but too faithful narrative of the management of the insane in this Province, antecedently to the establishment of the asylum, we will quote from it as much as relates to this subject:—

Towards the close of the last century an order in Council was passed, authorising an appropriation for the maintenance of insane persons in the Province of Lower Canada. These insane persons were intrusted to the care of certain religious communities in the respective districts of Montreal, Quebec, and Three Rivers, the Government paying a yearly sum of about £32 10s. for the support of each patient *

As in similar institutions in Europe, at this period, insane persons were confined merely as unmanageable, or as dangerous to the community, or to themselves. No measures were adopted for their restoration to reason. They were shut up in separate cells, debarred intercourse with the world, and with each other, were left to brood over their disordered fancies, until they became maniacal, tore their clothes, became filthy in their habits, and, from a well-known law of nature, that the faculties become dormant for want of exercise, became imbecile or idiotic. Occasionally a patient was removed by his friends, rarely was one discharged restored to reason. Over the portals of these receptacles, might, with truth, have been engraved the well known lines of Dante, "*O Voi che intrate, lasciate la speranza.*"

Strong representations were made from time to time by different Grand Juries, of the general unfitness of these receptacles; of their filthy condition; of the damp and want of ventilation of the cells; and of the general treatment of the unfortunate inmates.

In justice to the religious ladies, it must be said, that they themselves were desirous to be relieved from their charge, and repeatedly urged the unfitness of the place of confinement, and the necessity of better means of accomodation for the patients under their care.

In 1843, Sir Charles Metcalfe assumed the Government of the Canadas, and in his first speech at the opening of the House, urged the necessity of an improved system of treatment for the insane. During the session, notice was given by the Hon. T. C. Aylwin, of his intention to bring in a Bill to provide for the care and treatment of the insane, but owing to the press of other business the session passed over without any action being taken in the matter.

During the subsequent recess, the Governor General caused the different places in which the insane were confined, to be visited, and estimates formed of the expense of their removal to the country, and of the cost of their care, maintenance, and medical treatment.

At the subsequent meeting of the Legislature, the Governor General again brought the subject of asylums for the insane before the House, but the session was extremely short, and passed over without any further reference being made to the matter.

During the summer of 1845, His Excellency having made an agreement with the undersigned,* directed the insane persons then confined in the districts of Quebec and Three Rivers to be removed to a place fitted up for their temporary reception at Beauport, in neighbourhood of Quebec, and where they were accordingly removed on the 15th September, 1845.

At this time the insane persons in the district of Montreal were confined in the Jail: this, however, was destitute of almost every requisite for a Lunatic Asylum. It was surrounded with buildings; there was no land on which the patients could be employed; the yards were insufficient for exercise; and, moreover, the building was required for its more legitimate purposes. Under these circumstances the Governor General directed the removal of the insane from the district of Montreal to the Temporary Asylum at Beauport. This Temporary Asylum was situated 2½ miles from Quebec, and was leased for the purpose from Col Gugy, M.P.P.

The property comprised the Manor House, an extensive block of outbuildings of stone, and about two hundred acres of land. The grounds were diversified, were sufficiently well wooded, had a southern exposure, and commanded a magnificent view of the city and harbour of Quebec.

The principal building was capable of being fitted up to accomodate 120 patients, with their attendants.

On the 10th September, the arrangements were completed for the reception of 100 patients. The apartments consisted of a public dining room, a corridor for male patients, 108 feet by 12 wide, with bed-rooms opening into it, containing 40 beds, and one large dormitory containing 21 beds. The female patients occupied a day-room 36 by 18, a work-room 40 by 22, and five bedrooms containing 40 beds. Several female patients, capable of sewing or being otherwise employed, were lodged with the Warden and Matron in the Manor House.

On the morning of the 15th September, 1845, the insane persons in charge of the religious ladies of the General Hospital in Quebec, were transferred to the Asylum at Beauport. Much interest was felt by the undersigned in the removal of these unfortunate beings. One had been confined 28 years, several upwards of 20 years, and the remainder for various lesser periods. During the whole of this time they had been shut up in separate cells, in a low one story building, and surrounded by a strong cedar fence 12 feet high. They had never been permitted to leave the building, most of them had never been allowed to leave the separate small cells in which they had been confined, and excepting on an occasional visit from the Grand Jury, they had rarely seen any person but those who ministered to their urgent wants. Of these patients almost all were filthy in their habits, many were considered destructive, and the remainder had become imbecile or idiotic.

* The sum allowed by Government for the support of each patient was one shilling and eight pence per diem, there were besides occasional appropriations for the repairs of the building and fence.

* Drs. Doyle, Morin, and Fremont.

They were removed in open carriages and in cabs. They offered no resistance—on the contrary, they were delighted with the ride, and the view of the city, the river, trees, and the passers by, excited in them the most pleasurable emotions. On their arrival at the Asylum at Beauport, they were placed together at table to breakfast, and it was most interesting to witness the propriety of their conduct, to watch their actions, to listen to their conversation with each other, and to remark the amazement with which they regarded everything around them. All traces of ferocity, turbulence, and noise had suddenly vanished, they found themselves again in the world, and treated like rational beings, and they endeavoured to behave as such. One, a man of education and talents, whose mind was in fragments, but whose recollection of a confinement of 28 years was most vivid, wandered from window to window. He saw Quebec and knew it to be a city; he knew ships and boats on the river and bay, but could not comprehend steamers. Before leaving the General Hospital the Nuns had clothed him well and given him a pair of shoes. He remarked that he had been a long time shut up, and that it was 19 years since he had last seen leather. Another, a man who had been confined 20 years, and who had always evinced a turbulent disposition, demanded a broom, and commenced sweeping; he insisted on the others employing themselves also; he observed, "These poor people are all fools, and if you will give me a constable's staff, you will see how I will manage them, and make them work."

As soon as their muscular powers were sufficiently restored, the patients were induced to employ themselves in occupations the most congenial to their former habits and tastes. Some worked in the garden, others preferred sawing and splitting wood. The female patients were taken out daily, and many of them engaged in weeding the garden.

The effects of this system were soon apparent in their improved health and spirits; they became stronger, and ate and slept better. Some of them were restored to reason. One had been confined many years in a cell in the General Hospital; 13 months after his removal to the Asylum at Beauport, he was restored to his family and friends; another had also been an inmate of a cell several years, and after her discharge from the Asylum, engaged as a School Teacher. The other patients generally, though greatly improved, afforded small prospect of recovery, the disease of the brain had become chronic or organic, and their faculties and mental powers had been so weakened by long disease, as to preclude any reasonable hope of restoring them to society, and to their friends. It is, however, gratifying to be able to state that of all those removed from the General Hospital to the Asylum at Beauport, one only has been subject to even temporary restraint.

On the 28th September, 1845, the insane patients, 52 in number, were transferred from the Jail in Montreal to the Asylum at Beauport. As a class they were much more violent and destructive than the patients previously admitted from the other districts. Their cases, however, were more curable, and their minds less weakened by long confinement.

On the 5th October, the insane patients, 7 in number, were brought down from Three Rivers. Their condition was much more deplorable than that of the patients admitted from Quebec. They arrived chained and handcuffed. We were informed by their keepers that some of them had been kept fastened to staples driven into the floors of their respective cells. When approached, they shewed a disposition to bite, even after their hands and feet had been unfastened. No appearance of violence or turbulence was evinced after their admission into the Asylum, on the contrary they were found extremely harmless and docile.

One of these patients, a Canadian, and a powerfully made man, was pointed out by his keeper as being extremely violent and dangerous. He strongly opposed his being unfastened, this however was done on board of the steamer and he was conducted to a cab, which he entered without any opposition or reluctance. He answered to the name of Jacques, but could give no account of himself whatever. He had been picked up in the woods on the River St. Maurice with his feet frozen, and had been confined in the cells at Three Rivers during a period of seven years. A few days after his removal to Beauport, observing a man sawing wood, he pushed him aside, took the saw and used it himself; this seemed to afford him great pleasure; when not so employed out of doors, his constant amusement was in fishing. He would stand for hours together as if using a rod and line, and sometimes as if fishing through a hole in the ice. He was found to be quite inoffensive and harmless. He died of diseased lungs on the 7th March, 1846. Soon after his death, his brother and son arrived from the neighbourhood of Montreal in search of him, being attracted by a notice in the public prints, that an insane man, who could give no account of himself had been found wandering in one of the parishes below Quebec, and sent to the Asylum at Beauport. His friends stated that Jacques had escaped from their charge several years before, and that not being able to trace him, or gain any tidings of him, they concluded that he had perished in the woods.

On the 5th October, 1845, the whole number of patients in the Asylum was 82. Since then their number has been gradually increasing and additional rooms have been from time to time fitted up as well to accommodate this increasing number as to afford the means of their more complete separation and classification.

On the 1st October, 1848, the period expired during which the undersigned had engaged with the Government for the care, maintenance, and medical treatment of the insane from the different districts in C. E., and they take the occasion of their entering into another engagement for a further period to lay before the Commissions a statement of what has been done during the past three years, in their endeavours to carry out the intentions of the Government to ameliorate the condition of the insane.

On the 1st Oct., 1845, there were in Asylum. . .				82
Admitted to Oct. 1, 1848.				152
Total.				234
Of these have been discharged:—				
Recovered Males, . .	16;	Females, . .	14	—30
Improved " . . .	7;	" . . .	5	—12
Not Improved " . .	6;	" . .	6	—12
Died " . . .	24;	" . . .	26	—50
				104
Remaining in the Asylum.				130

Of whom are—Males, 70; Females, 60.

The character of the diseases is not given, and we are aware that a large number of documents connected with the Asylum, and having reference to its statistics and management, were, unfortunately, lost at a fire—the supposed work of an incendiary—which took place in the house of Dr. Von Iffland, the resident physician, on the 25th Nov. last, which effected the destruction of his various MSS., and a large amount of his private property.

On the whole, both the Government and the Province have every reason to be satisfied with the management of this insane institution—the only one in the Lower Province. We are happy to say, that it still continues under the same excellent management.

ART. LXXXVII.—*Essays on infant therapeutics, to which are added Observations on Ergot, and an account of the origin of the use of mercury in inflammatory complaints.* By JOHN B. BECK, M. D., Professor of Materia Medica, and Medical Jurisprudence, in the College of Physicians and Surgeons of the University of the State of New-York, &c., &c. New-York: W. Dean, 1849; 12mo. pp. 117.

In a short preface, the author observes, that from the favourable manner in which the various essays, which together, constitute the little volume before us, were received by the profession, he has been induced to represent them in the present form.

The essays amount in number to seven. The first five relate to the effects of opium, emetics, mercury, blisters, and blood-letting on the young subject; the

sixth refers to observations on ergot,—and the last presents an account of the origin of the use of mercury in inflammatory complaints.

Our own high opinion of the merits of these papers is in nothing more strongly evinced, than in our introduction of them into our columns, from the pages of the valuable journals in which they first appeared as original communications. The author has rendered the profession a signal service, in the manner in which he has treated these much used, yet much abused, remedial agents; the essays containing practical lessons of great value to the young practitioner, and hints not undeserving the attention of many an old one.

ART. LXXXVIII.—*Summary of the Transactions of the College of Physicians of Philadelphia, from Sept. 6, 1848, to Jan. 2, 1849, inclusive.*

The present semi-annual report, contains two valuable documents, the one being the annual report on the theory and practice of medicine, printed and read by Dr. Coats, the other on obstetrics, by Dr. Griscom. The proceedings of this body still preserve their high character for scientific research, and the reports present a faithful epitome of the progress made in the several departments on which they treat, and must form a valuable recueuil to the practitioner.

PRACTICE OF MEDICINE AND PATHOLOGY.

Belladonna in the Nocturnal Incontinence of Urine in Children.—M. Trousseau narrates the case of a girl, five years old, who, since her third year had been the victim of this obstinate complaint. No effort was neglected on the part of the parents to remove the habit; but all the means adopted—some of them sufficiently severe—were without effect. A pill, containing one centigramme of the powder and half a centigramme of the extract of belladonna, was was ordered to be taken every night at bed-time. During the first week two nights were passed without accidents; and from that time, with two or three exceptions, the complaint entirely disappeared. The treatment was resumed from time to time for nearly a year. This is only one of several cases occurring, as well in his own practice as in that of M. Bretonneau, in which Professor Trousseau has observed marked benefit from the use of this drug.—*L' Union Méd.*, Oct. 14, 1848.

In a more recent number, Oct. 21., of the same journal, Dr. Blache, physician to the Hopital des Enfans, records two very obstinate cases of nocturnal incontinence of urine occurring in individuals, one fifteen and the other eighteen years of age, where mercurial and sulphurous baths, refrigerant and astrigent arplications, tonic and ferruginous medicines, tannin, ergot of rye, nux vomica, and all other means had failed. Ultimately belladonna was exhibited with complete success.—*Monthly Retrospect*, Dec. 1848.

Carbonate of Ammonia in Scarlet Fever.—The use of carbonate of Ammonia in scarlatina was first advocated by M. Strahl, in Germany, and afterwards resorted to in France; in which latter country it is still highly esteemed and used by M. Baudelocque in the Hôpital des Enfants. This physician has not only used it in mild cases, but also in the malignant form of the disease, and where the eruption has receded, and in the consecutive dropsy of scarlatina. He sums up by stating that he has derived great advantage from its use in irregular scarlatina with cerebral disorder and depressed powers; in scarlatina attended with the production of false membranes on different mucous surfaces; in hemorrhagic scarlatina; and in the dropsy of scarlatina, whether confined to the cellular tissue or extended to the serous sacs. He has administered it in the form of mixture, simple or aromatized, and in gradually augmented doses.

There can be but little doubt of the efficacy of ammonia in the eruptive and also in typhoid fevers, acting as it does as a general stimulus to the system, and as a special one to the cutaneous and mucous surfaces; and indeed, it has been considerably employed in this country in scarlatina, but not so much in the character of a specific as it appears to be viewed by M. Baudelocque, as on account of its general and special action above indicated—an action particularly required where a debilitating poison, like scarlatina, is preying upon the system. The value of ammonia in the dropsy following scarlatina has been less appreciated, but it is certainly deserving of trial; for, *à priori*, we may anticipate benefit from this medicine by reason of its stimulant action upon the capillary system at large, whereby it influences nutrition at large, and particularly that of the mucous membranes. Thus it may restore the capillary system of the kidneys to its normal condition, removing the congestion present, and unloading the uriniferous tubes of their impacted epithelial particles, and so rendering the renal secretion natural and more active, relieve the systematic dropsy.—*Lancet*, Aug. 26, 1848.

SURGERY.

Tetanus from Injury of the Ankle—Amputation—Repeated Etherization—Death. By M. Roux, Naval Surgeon in Chief of Cherbourg—9th April, 1848.—J. G., a robust man of nervous temparament, was admitted into the Hospital of Marine, at Cherbourg, suffering from fracture of the fibula, with complete dislocation, outwards, of the ankle joint. There was a small wound over the inner malleolus. The foot was easily replaced. Next morning there was neither swelling in the limb, nor general fever.

On the 12th, heat, redness, and swelling of the limb came on accompanied by fever. During the next few days he became worse; fetid discharge came through the wound over the malleolus; and the parts over and within the articulation began to slough.

Incisions were made, and on the 21st the swelling was lessened, but the general condition of the patient was worse; the foot was displaced; the sloughing was extensive; the joint and the tibia exposed; the foot red and œdematous. In addition, he spoke and swallowed with difficulty; and trismus was present.

Amputation was now indispensable, and would have been already performed but for the general reaction, and the great swelling of the upper part of the leg. The immediate amputation of the limb was decided on, the occurrence of tetanus not being considered an obstacle.

In five minutes unconsciousness was produced by chloroform. The inhalation was continued for three more minutes, until the stiffening of the limbs gave place to complete relaxation; and the leg was amputated, the patient being quite unconscious. The chloroformization was repeated several times during the operation; and the patient was insensible for about eighteen minutes.

After the operation, the trismus was slightly lessened; but the jaws could only be partially opened. The patient complained of violent pain in the stump. In the course of the day chloroform was administered five times. Each time pain was suspended with consciousness, and the trismus lessened with mascular relaxation. But these effects were only momentary.

Next day the pain was lessened, but the trismus was more pronounced. Poultices, with laudanum, were applied to the wound. Etherization was practised six times in the course of the day. The effect of ether on the patient did not differ from that of chloroform.

On the 23rd, opisthotonos was established; but the limbs were still free, except during paroxysms. Ether was given once, and chloroform six times during the day. The ether excited a prolonged rigor, violent cough, and a sense of suffocation. The ether was consequently exchanged for chloroform. During the evening, after the last inhalation, the bronchæ appeared to be filled with frothy fluid.

On the 24th, the symptoms were not materially modified. Deglutition was more laborious, and was always accompanied by cough and a sense of suffocation, as if each time liquid entered the air passages. The trismus and opisthotonos were complete and unyielding. He inhaled chloroform thrice during the day. The difficulty of breathing increased, and he became gradually worse. Deglutition was only possible during the short interval of mascular relaxation which followed the inhalation of chloroform.

At midnight he became suddenly worse; the respiration being frequent and embarassed, the pulse rapid, and anxiety increased; convulsions came on; intelligence, hitherto scarcely affected, disappeared; a cold sweat covered the body; and, almost without agony, he died at 1 A.M., on the 25th.—*Lon. Med. Gaz.* Sept. 1848.

MIDWIFERY.

Sore Nipples and their Treatment. By Drs. M'Clintock & Hardy.—Sore nipples may not only incapacitate a woman from nursing—a deprivation in itself often sufficiently grievous—but they may, as we have before observed, give rise to mammary abscess, from an extension of the inflammation backwards, along the ducts, to the substance of the gland. This, in point of fact, is the great danger to be apprehended, and every other consideration should give way to it.

When there is reason to dread such a result, the child is enlirely withheld from the affected breast, which is kept soft by rubbing, and if the nipple itself appear to be the seat of any inflammation, a bread and water poultice is applied to it.

Of the various topical applications for sore nipples employed in this hospital, it may be well to mention two or three whose value has been established by long experience.

Amongst these the tincture of catechu holds a high place, and has been found a very excellent astringent; like the other remedies of this class, it is best adapted for the simply excoriated or abraded nipple. Nearly similar to it is the solution of pure tannin, so highly recommended by Mr. Druitt. It is made by dissolving five grains in an ounce of distilled water. We have not observed it to possess any superiority over the catechu, except in being more cleanly. The following is a favourite lotion with Dr. Johnson, who has been in the habit of using it for many years:—℞. Subborat. sodæ, ʒii; Cretæ precipitat., ʒi; Spiritus vini, Aquæ rosæ, aa ʒiii. M. fiat lotio.

This may be applied alternately with the following ointment, or the latter may be used alone:—℞. Ceræ albæ, ʒivss; Ol. amygdal. dulc., ʒi; Mellis despumat., ʒss; dissolve ope caloris, dein adde gradatim, Bals. Peruvani, ʒiiss; M. fiat unguentum.

In some cases we have seen benefit result from the use of tincture of galls and compound tincture of benzoin (Friar's balsam), in equal proportions.

It is always well to have in mind a number of these different preparations, for it not unfrequently happens that one will answer our purpose when others have failed. For fissured nipples some authors strongly advise the application of solid nitrate of silver; but our experience does not permit us to speak of it. Dr. Johnson thinks it is sometimes a good remedy in such cases, at a remote period of delivery; but that during the puerperal state its use is not advantageous, as it is apt to be followed by mammary abscess.—*Practical Observations.—Lon. Med. Gaz.*, Sept. 1848.

MATERIA MEDICA AND CHEMISTRY.

Camphor and Chloroform Mixture. By T. & H. Smith. (*Monthly Jour. & Retrosp. of the Medical Sciences*, Nov. 1848.)—There is great difficulty, or rather an utter impossibility of administering camphor in a state of solution in doses of sufficient potency in some cases. The form of pill, the only mode of giving large doses of this medicine, is objectionable in many cases, and in others altogether inadmissible. The camphor being merely in a state of mechanical division, on being set free in the stomach, from its extreme lightness quickly separates and floats about, thus producing in many cases much local irritation in that organ, instead of soothing or arousing the general system.

Messrs. T. & H. Smith, Chemists of Edinburgh, give a formula for exhibiting camphor in doses of almost any amount of strength—certainly as large as any case can require—and that in a state of perfect solution; thereby allowing of a nice adaptation of the dose to the circumstances of each case.

The formula is as follows:—Three drachms of solid camphor are dissolved in one fluid drachm of chloroform. This is, perhaps, one of the most remarkable cases of solution the whole range of chemistry presents to us. The solution is most *rapid and complete*, and the bulk of the liquid is now increased from one to fully four fluid drachms. This solution rubbed up with the *yolk* of one fresh egg, may be formed into an extremely elegant emulsion by the addition of water, without the slightest separation of the camphor or chloroform; in fact, no separation of any kind takes place. If to the proportions given above as much water be added as to make a four-ounce mixture, each tea-spoonful of the mixture when formed will contain about five and a half grains of camphor, and about two minims of chloroform. The capability of the formula being varied, so that either the camphor or chloroform may constitute the predominating ingredient, must be quite obvious. This mixture can be administered in any ordinary vehicle, such as water, without the occurrence of any separation; indeed, the mixture is as readily and completely effected as cream with tea or coffee. We have tried the effect of several medicinal substances on the mixture. With none of them has any separation been caused.

A weak saline solution, composed of common salt, phosphate of soda, and an alkaline carbonate, mixed readily, as well as a solution of muriate of morphia and sulphate of zinc. With the volatile alkali and acid liquids—such as a weak solution of acetic and muriatic acids—the mixture seems to become more intimate and stable. The mixture with amonia has stood since its preparation—now fully a week—without any separation. With water alone, however, the chloroform solution of camphor separates in a few days, but they readily unite again when slightly agitated. The solution of camphor in chloroform, although insoluble in water alone, appears in this mixture to be in as complete a state of mixture as the butter in milk when newly drawn from the cow.

The therapeutic value of the formula remains to be ascertained.

Action of Calomel on the Liver. By M. Michea.—When calomel is administered in purgative doses, the stools become more liquid, and at the same time acquire a characteristic green colour. This green colour is usually, at least by English practitioners, held to indicate the presence of bile, and the experiments of our author tend to show that the opinion is well founded. Calomel stools have been analyzed by Golding Bird (*Med. Gaz.*, Sept. 1845) who found only slight traces of bile; and by Siebert of Erlangen, who failed to obtain any indication of that secretion. Dr. Bird concluded from his experiments, that the green colour is due to an altered condition of the colouring matter of the blood.

M. Michea has examined the feces under four different conditions:—

1. Feces passed by a healthy individual, no drug having been administered.—In six specimens no bile was found.

2. Green stools rendered by individuals suffering from gastro-intestinal irritation, no drug having been administered.—The presence of bile was indicated in one only of three cases examined.

3. Calomel stools. This drug was exhibited to eight individuals, and the alvine dejections presented a green colour in four. In these the presence of bile was readily demonstrated. These stools showed also the presence of a large quantity of albumen, which the author supposes to be derived from the bile.

4. Stools obtained by the exhibition of saline and other non-mercurial purgatives.—These never or very rarely present the green colour or the viscosity peculiar to calomel stools. Five specimens were examined; neither biliverdin nor albumen was found.

The author prefers the nitric acid as a test for bile. Added to an animal liquid containing this secretion, a characteristic reaction ensues; the fluid becomes first green, then bluish-violet, and finally assumes a red colour. These changes occur within the space of a few seconds.

From these experiments it may be concluded that calomel stools contain an excess of bile; as nitric acid reveals in them the existence of two principles of that secretion, biliverdin and albumen.—*Monthly Retrospect, Dec.* 1848, from *L'Union Medicale, Oct.* 21 and 23, 1848.

Action of Chloroform.—M. Malgaigne has made to the French Academy of Medicine a very interesting report on chloroform. The following are his conclusions:—

1. Chloroform is a most energetic substance, which may be classed with poisons, and should be only used by experienced persons. 2. It is liable to cause irritation of the air passages, and should be employed with reserve in persons suffering from the lungs or heart. 3. Chloroform possesses a special toxic action, which has been profited by, and is carried as far as the production of insensibility, but which may occasion death if improperly prolonged. 4. Certain modes of exhibition increases the perils inherent to chloroform; thus psphyxia may be brought on, if the anæsthetic vapours are not sufficiently mixed with air; or if respiration is not performed with freedom. 5. All these dangers may be obviated if the surgeon, in the first place, ascertains that the respiratory organs and the circulating system are sound, if a sufficient quantity of air is admitted into the lungs, together with the chloroform; and, finally, if the inhalation is suspended immediately upon the production of unconsciousness.

M. Amussat maintained that although a free ingress of air took place into the lungs at the same time with chloroform vapours, the colour of the arterial blood became darker as soon as the insensibility was produced. M. A. observes that the effects of ether or chloroform were to be particularly dreaded when patients had lost much blood.—*Medical Times*, Nov. 25.

These conclusions of M. Malgaigne have been attacked by M. Guerin, who proposed to substitute for them the following:—

1. That chloroform, a most energetic agent, was susceptible, in experienced hands, of rendering signal service, but exhibited in expressive doses, or for too long a time, or by improper methods, it might become a direct cause of death.

2. That circumstances, peculiar conditions existed, not yet altogether pointed out with precision, but of which certain instances demonstrated peremptorily the possibility, which increased the toxic properties of chloroform, and which necessitated the greatest caution in its use.

3. That in M. Gorre's case, it was the opinion of the Academy that chloroform had probably occasioned death, although that agent had been employed in a dose and in a manner which experiment had almost universally shown to be innocuous; and that the rapidity, and exceptional intensity of the intoxication, had been in that instance favoured by individual circumstances, which the surgeon could not possibly foresee.—*Med. Times*, Dec. 2, 1848.

MISCELLANEOUS.

On the Acid Springs and Gypsum Deposits of the Onondaga Salt Group. By T. S. Hunt, of the Geol. Survey of Canada. Read before the American Association for the Promotion of Science.—That portion of the upper Silurian system of New York, which has been designated by the geologists of that State, the Onondaga Salt Group, is characterized not only by the saline springs to which it owes its name, but also by the numerous deposits of gypsum and springs which are sour to the taste and contain free sulphuric acid. The one at Byron, New York, has long been known, and several others have been observed more recently in the same geological district. The same region in Canada affords a remarkable spring of this kind, which, in the course of my official duties, I had occasion to examine in the month of October, 1847. It is situated in the township of Tuscarora, in the Indian Reserve, about twenty miles north of Port Dover, which is the nearest point on Lake Erie. The water contains a large amount of free sulphuric acid, about 4 parts in 1000, besides sulphates of the alkalies, lime, magnesia, aluminum and iron in small quantities. The proportion of these ingredients is however not constant, as is evident from an analysis made in April, 1846, by Prof. Croft, of King's College, Toronto, which is confirmed by a partial examination by myself, of a specimen of water brought from the spring in June, 1845.

The specific gravity of the water was much lower, and the amount of foreign ingredients much less, than in that collected by myself, but the proportion of bases to the acid was much greater. The proportion of the lime to the acid I found to be about 1:15, and that of the magnesia 1:90, while Prof. Croft's determination gave about 1:6 and one to 1:15, respectively. That collected in 1845 is a nearly saturated solution of gypsum, while that of 1847 contains no more than about 7 parts in 10,000.

These facts indicate a rapid change in the constitution of the spring, and its situation shows it to be of comparatively recent origin; for although the powerful acid has destroyed all traces of vegetation for a distance of several yards around the source, the water issues from beneath the roots of an enormous pine tree, whose half decayed stumps still stands several feet in height, while the crumbling mould from its slow decay, forms the surface soil for some distance around. Without overlooking the antiseptic virtues of the mineral substances contained in this remarkable spring, this fact shows that its antiquity can scarcely be greater than a century, if indeed half that cycle may not extend beyond the

time of its first development, while the rapid decrease in the quantity of the saline bases shows that its character remains constant scarcely for a twelve month. It should have been observed that there are four or five basins within the distance of as many yards, and that they are situated on the summit of a low mound which rises with a gradual slope from the marshy plain.

The probable cause of these changes will be seen by adverting to the character of the gypsum deposits of this formation, which I regard as having an intimate connection with this class of springs. The investigations of Mr. Hall, in New York, and Mr. Murray, in Canada, unite in showing that the gypsum of these rocks always occurs in hillocks or dome-shaped masses, varying in size from one foot to 300 or 400 feet in diameter, and always near the surface of the formation. Sections of these masses show them resting upon undisturbed strata of limestone, while the superior strata are thrown up and rest upon the flanks of the intruded hillock, often very much broken, and, as Mr. Hall has remarked, in part consumed, so that one is at a loss to account for the disappearance of a large portion of the overlying strata. In one case observed by Mr. Murray, a slender cylinder of gypsum passes through several beds of the limestone, and at last terminates in a cone of the usual form, which is entirely superior to the limestone formation, and surrounded by the tertiary clay of the region. The comparatively recent origin which this assigns to the gypsum deposits, is confirmed by the common experience of the people of Western New York, where it is a well known fact that since the settlement of the country, walls have been disturbed and houses raised from their foundations by a gradual elevation of the surface, where subsequent examination has shown the presence of domes of gypsum.

On comparing these facts with those observed in connection with the acid spring, it appears probable that the origin of the gypsum is to be ascribed to the action of such mineral waters upon the calcareous strata. How far the pressure at a great depth may operate in preventing chemical changes, we may not know, but it is easy to see that once coming to a situation where it could act upon the limestone, it would evolve carbonic acid gas, and form a calcareous sulphate which from its sparing solubility would be at once deposited in a crystalline form, while the water would pass off saturated with the sulphate, and at the same time carrying with it the soluble sulphates of magnesia, alumina, and iron, which would be formed from the other bases, generally present in the limestones of this region. If the amount of acid were copious, or the supply of calcareous matter limited, the water might rise to the surface with free acid, as in the cases already noticed, and when the deposition of calcareous sulphate had extended so far as to protect the carbonate from farther action, the water would appear with a much smaller portion of bases than before, having only the sulphate of lime which it could dissolve from the sides of its channels.

If on the contrary, the acid were entirely neutralized, the spring would present at the surface the character of an ordinary bitter saline, containing calcareous and magnesian sulphates; two springs of this character are indeed found in the same formation not far from here. The ferruginous and argillaceous substance known as *gypsiferous marl*, which surrounds these deposits, seem to be due to the precipitation by the carbonate of lime of the iron and alumina, which have been previously taken up by the water, yielding a mixture of these oxyds with carbonate and sulphate of lime. The fact that crystaline gypsum occupies nearly twice the space of an equivalent quantity of carbonate of lime, will at once explain the displacement of the superincumbent materials. The observation which is now required to confirm this theory, is to find the carbonic acid which should be evolved from the decomposition of the limestone, actually disengaged from one of these springs; the small quantity of gas which rises from the Turcarora spring was found to be principally carburetted hydrogen, which is copiously evolved by the salines of this region, but it was collected at a time when from the minute portion of gypsum in the water, the action seems to have been at an end. I shall not attempt to speculate upon the probable source of the sulphuric acid at present, but shall defer the consideration of the subject until the publication of my report on the mineral springs of Canada, which will be accompanied with the analysis of this water as collected in different years. Hoping that my observations may resolve a hitherto unexplained problem in the geology of this region, I beg leave to submit them to the notice of the Association.—*Am. Jour. of Science and Arts.*

THE

British American Journal.

MONTREAL, APRIL 2, 1849.

THE REPEAL ASSOCIATION AND ITS PETITION TO THE HOUSE.

We insert below the petition of the Repeal Association, in its original English translation, as presented to the House, and signed by *Englishmen*. It numbers 125 signatures, among which are those of two M.P.P.'s, whose names would have been better absent; of one or two who have signed twice, and of one or two who are not Licentiates at all. Besides these, we notice the names of two Governors of the college—Drs. Badeau and Brossard. We hope they can explain their conduct if required. The cause of opposition afforded by our brethren in the St. Francis District, will be obvious to all who have perused the late numbers of this Journal; but as they prefer sailing now in another vessel, we hope they like their company. This is a move on their part which we certainly did not expect. An error committed by the Board of Governors should not have been visited against the Profession. Personal feeling should yield to the general good in all cases, and we feel assured that a little longer reflection will convince them that they have done wrong, and have placed themselves in a false position. Much as the Repeal Association asserts, we state deliberately and positively that they *do not* represent the feelings, wishes and interests of the Profession, and that so far from representing even a majority of its members, they do the reverse. A year's systematic agitation has secured to them only about 120 *bona fide* signatures. In the course of a week or ten days, the districts of Montreal, Three Rivers and St. Francis, have numbered nearly 70 against their pretensions, while the city of Quebec alone has returned a list of 29, obtained in the course of forty-eight hours. Replies to the questions

proposed by the committee are fast coming in, and as a general observation for this District and that of Three Rivers, we may observe, that the replies of French Canadian members are adverse, and those of English members favorable, to the continuance of the present Act with certain amendments. Those from Quebec are by a large majority favourable. The reply of one *English* member who resides in the District of Three Rivers, which we saw this day, and is unfavorable, is couched in such ungrammatical and unintelligible English, that he would have been soundly whipped if at school, for violating every one of Murray's Rules in so gross a manner.

To the Honorable the Commons of the Province of Canada, in Parliament assembled :

The humble petition of the undersigned Physicians and Surgeons duly admitted to practice in the Province, and residing in Lower Canada ; respectfully sheweth :

That in the last Session of the Provincial Parliament an Act was passed to incorporate the Members of the Medical Profession in Lower Canada, and to regulate the study and practice of Physic and Surgery therein.

That in the humble opinion of your petitioners that Act is defective in its principle, unsatisfactory in its operation, and insufficient in all respects for the purposes contemplated therein.

That the experience required in the working of this Act since its passing, is entirely in accordance with the opinion herein above expressed: That difficulties have constantly been raised on the very constitution of the corporation, that the law intended to establish, on its power and authority, and the mode of proceeding to be adopted. Hence have arisen inefficiency in its action, uncertainty and in the regularity of its proceedings, and the want of confidence of the majority of the Members belonging to the Profession.

That these inconveniences might be remedied by the repeal of the said Act, and by passing a new law, providing for the regulation of the study of the Profession, and mode of admission, without its being necessary to have such a corporation as the one now existing, acting by the means of a few Physicians who alternately sit at Quebec and Montreal: That Boards of examiners should be substituted in its stead, one at Montreal and another at Quebec, to attend to the admission of students and to the regulation of their studies for the practice of Physic, Surgery, and Medicine, as well as Pharmacy and the art of the Dentist.

That as regards the regulations that might be necessary, peculiarly affecting the Physician already admitted into the Profession, and the public interest generally, in as much as it is concerned, your petitioners would expect a better result from a law founded on a just and liberal basis, and in which the legislator would define his intentions by means of clear and precise provisions, than from By-laws adopted by the present corporation, which your petitioners think is not adequate to the wants and circumstances of the country, nor convenient to the dissemination of the greatest number of Physicians in the country parts, or adapted to the necessity of encouraging without distinction, the young men who, with steady capacities and emulations, would be disposed to enter into the medical profession.

That a Board of examiners in each of the two great cities, elected by the body of the Profession, would be much less expensive for the pupils and the members of the profession themselves, than the organization which now subsists: That such men enjoying the confidence of their confrères in each District, would necessitate no disbursement on behalf of pupils for their travelling expenses; neither on the part of the examiners, who would think themselves sufficiently rewarded with the honor of belonging to such Boards: That each of these Boards would act in their respective circumscription for the purposes herein above enumerated, but without the power indefinitely given to pass By-laws to bind all members of the profession, which could not be adopted and carried into effect by a number of Physicians residing in the cities, and particularly by the Governors of the present corporation without the greatest difficulties and inconveniencies.

Your petitioners therefore respectfully pray, that you will take this their present petition into consideration; and that after being satisfied of the inefficiency of the existing law, you will please to substitute instead thereof, another law according to the views herein above expressed, or otherwise in such a manner as in your wisdom it shall deem meet. And your petitioners will ever pray.

Lower Canada, February, 1818. January 24, 1819.

To the French copy are appended the following names :

B. H. Charlebois,
C. A. Regnault,
T. E. D. D'orsonnens,
T. Dominville,
T. H. Grenier,
A. C. Regnier,
C. E. Brossard,
Dr. P. Larochelle,
A. D. Bondry,
C. Sabourin,
Hector Peltier,
J. E. Coderre,
P. E. Picault,
F. L. Tassé,
T. Stearns,
Dr. L. Lemieux,
H. F. Turcotte,
J. L. Leprohon,
J. W Wilscam,
L. H. Boyer,
R. C. Weilbrenner,
A. B. Craig,
A. B. Lafreniere,
W. D'Eschambault,
E. W. Trudel, M.D.
P. H. L. Richelieu,
J. B. Bronsseau,
Al. Faneuf,
A. Rollin,
L. H. Desmarais,
D. F. Hudon,
L. H. Isaac Jacquer,

To the English translation are appended the following names :

Robert Godfrey, M.D.
B. H. Leprohon,
Dr. G. Letourneux,
G. Gaticpy,
P. D. Hubert,
S. Viger,
H. Paradis,
F. M. Thifault,
J. B. Meilleur, M.D.,
W. P Smith,
A. Berthelot,
G. W. Gernon,
J. H. Gernon,
L. LePailleur,
P. E. Mignault,
P. Brassard,
E. Larocque,
H. Guerin,
A. B. Larocque,
G. D. Gernon,
F. Fortier, M.D.,
E. G. Landry,
M. Turcot,
J. C. Taché,
S. Viger,
L. H. Isaac Jacques,
T. Fortier, M. D.,
O. Laurin,
H. Hall, M.D.,
G. B. Valiquet,
E. S. Belleau,
L. J. Roy,
Dr. M'Callum,
T. O. Rousseau,
C. E. N. Courteau,
J. N. Robitaille,
S. Cazeneuve,
Pliny Sherman,
Perkins Nichols,
E. Munkel,
E. Rousseau, M.D,
G. Pratte,
M. A. Boucher,
A. Lacroix,
E. Dugas,
F. C. Alcorn M.D.,
E. D. Worthington, M.D.,
H. E. Cleaveland, M. D.,
S. Mallony,
Chs. Frs. Painchaud,
W. D—— (unintelligible,)
F. N. Gendron,
J. G. G. M. Dechene,
C. T. Dubé,
V. Masse,
L. D. Lafontaine,
R. Bedard,
Aimé Dugas,
A. H. Rodgers,
R. Cowan, M.R.C.S.L.,
T. Hildreth, M. C. P. & S. L.C.,
R. T. Michaud,
E. Z. Boudreau,
M. H. Turcot,
G. Badeau,
H. P. Ouellet,
Chs. Trudel,
P. O. Lassisseraye,
Saluste Roy,
A. Berthelot,
J. A. Bourgeois,
W. H. Dugnay,
L. Laurin,
F. D. Gilbert, M.R.C.S.L.,
G. O. Somers,
O. Jenks, M.D.,
Jos. Coté, M.D.,
A. Fournier,
B. Gauthier,
N. Bourgeois,
V. DeBoucherville,
H. M. Dechene,
C. Dansereau, M.D.,
L. D. Harvey,
N. H. Desilet,
C. Sirois,
P. Cadieux,
P. Bouchard Labruer,
C. W. Cowles, M.D.,
William Monsell, M.R.C.S.L.,
N. Cleaveland, M.D.,

THE COUNTER-PETITIONS TO THE HOUSE.

We insert below the counter-petitions from the city of Quebec, and for this District, St. Francis and Three Rivers. We earnestly call the attention of every member of the Profession to the latter, and request him to forward to Dr. David, Secretary of the College, his signature, to be added to the others. It is desired that the list should be as complete and full as possible, and that the names should be sent in without delay, as it must be transmitted early next week to the House.

Aux Honorables Membres de la Chambre d'Assemblée réunis en Parlement Provincial, etc.

Les soussignés membres de la profession médicale, résidant à Québec, ayant vu sur les papiers publics qu'une pétition avait été présentée à votre Honorable Chambre, par B. H. Charlebois, écr. et autres médecins et chirurgiens du Bas-Canada, demandant que le présent acte de médecine incorporant la profession, soit rappelé et remplacé par un nouveau, prient respectueusement qu'il leur soit permis de représenter.

Que la loi maintenant en force qui règle l'étude et la pratique de la médecine sans être parfaite, peut être dans tous ses détails, est cependant passablement adaptée aux besoins pressants de la profession et que si la législature permettait que la dite loi continuât à opérer jusqu'à la prochaine assemblée générale triennale qui doit avoir lieu en 1850 pour l'élection du Bureau des Gouverneurs, conformément aux règlements, la profession après avoir vu fonctionner le dit acte pendant trois années, sera plus en état qu'à présent d'en reconnaître les défectuosités et de suggérer les amendements qui paraîtrons nécessaires et indispensables.

Les soussignés exposent de plus, que les gouverneurs actuels du Collége ayant été élus au comité dans une assemblée générale, la plus nombreuse qui ait jamais eu lieu en Canada, devraient être considérés non seulement comme les représentants de la faculté médicale, mais encore comme des membres jouissant de la confiance de leurs confrères.

D'après ces considérations, les soussignés osent prier humblement, que la pétition de B. H. Charlebois, écr., et autres, soit de nul effet.

Et vos suppliants ne cesseront de prier.

Jos. Painchaud, Sen.	F. G. Seguin,
Jos. Morrin,	M. P. Bardy,
Jos. Parant, M. R. C. S. L.	C. Eusèbe Lemieux,
Jas. Douglas,	J. Blanchet,
G. R. Nault,	P. Wells,
P. Baillargeon,	R. F. Rinfret,
J. E. J. Landry,	J. P. Russell, M. D. E
J. B. Blais,	C. D. Moffatt, M. R. C. S. L.
R. Cayer,	A. Jackson, L. R. C. S. E
John Rowly,	James Wolff,
O. S. Robitaille,	Jas. A. Sewell, M. D.
Jos. Painchaud, Jun.	Wm. Marsden M D.
Ben. Guay	J. M. Fitzgerald, M. D.
C. Fremont,	J. Fitzpatrick.
R. H. Russell, M. D.	

Québec, le 9 mars 1849.

To the Honourable the Members of the Legislative Assembly, in Provincial Parliament Assembled :

The undersigned Members of the Medical Profession, resident in the Districts of Montreal, Three Rivers, and St. Francis, aware that a petition has been presented to your Honourable House, by B. H. Charlebois, Esq., and other Physicians and Surgeons praying for a repeal of the present Act Incorporating the Medical Profession of Lower Canada, and for the substitution in its stead of a new Act or Acts, respectfully represent :—

That the Act now in force regulating the Study and Practice of Medicine, without, perhaps, being perfect in all its details, is, nevertheless, suitable to the present wants of the Profession ; and if the Legislature would permit the present Law to remain in operation until the next General Triennial Meeting, which will take place next year, (1850,) for the election of the Board of Governors, comformably with the Rules and Regulations, as sanctioned by His Excellency the Governor General, the Profession, after having seen the working of the present Act for three years, will be better able than at present to point out its defects, and suggest those amendments which may be found necessary and indispensable.

The undersigned further beg leave to state, that the present Governors of the College were elected by ballot at a General Assembly, the most numerous that was ever held in Canada, not only of representatives of the Medical Profession from all parts of this section of the Province, but also of those known to enjoy the entire confidence of their confreres.

Viewing these circumstances, the undersigned humbly pray that the petition of B. H. Charlebois, Esq., and others, may not receive any consideration from your Honourable House.

And your petitioners, as in duty bound, will ever pray.

D. Arnoldi, M.D., Pres. Col. Physicians and Surgeons.	Matthew P. Burns.
A. F. Holmes, M.D.	Henry Morson.
M. McCulloch, M.D.	W. Aitken.
M. Valois.	George E. Fenwick, M.D.
R. L. Macdonnell, M.D.	Samuel Waller, M.D.
Francis C. T. Arnoldi, M.D.	W. A. Liddell, S.F.P. & S.
Isaac C. E. Ogden.	W. Fraser, M.D,
L. F. Tavernier.	E. Q. Sewell, M.D.
Francis Badgley, M.D.	J P. Rottot.
Wm. Sutherland, M.D.	Stephen Sewell Foster, M.D.
George W. Campbell, M.D.	C. Lafontaine.
A. Hall, M.D.	Thomas McGrath.
J. G. Bibaud, M.D.	T. Kimber.
F. Morson, M.R.C.S.L.	W. A. R. Gilmour, M.D.
William Behn, M.D.	John Minshall.
Arthur Fisher, M.D.	Henry Cartier, M.D.
C. B. DeGrobois.	Charles Smallwood, M.D.
P. A. C. Munro, M.D.	James Mason.
Henry Howard, M.R C S.L.	A. G. Fenwick.
John Anderson, M.R C.C.L.	William Mayrand, M.D.
C. H. Payne, M.D.	T. F. Howard.
J Crawford, M.D.	Peter Henderson, M.D.
J. C. Sewell, M.D.	B. G. Calder, M.D.L.R C.S.
A. H. David, M.D.	T. Bowie, M.D.
C. H. Castle.	Robert Cartier.
Alexander Long, M.D.	Gavin Russell.
P. T. Longpré, M D.	G. D. Gibb, M.D.
W. E. Scott, M.D.	R. G. Morehead.
S. B. Schmidt, M.D.	J. B. Johnston.
E. P. McNaughton, M.D.	J. B. Allard.
J. Barker, M.R.C.S.L.	J. A. Poulin.
	J. F. X. Beigue.

ACT FOR INCORPORATING THE MEDICAL PROFESSION IN UPPER CANADA.—PROCEEDINGS IN THE HOUSE.

We are fallen upon strange times. But the question is, whether the people or the times have altered, the sentiment of the poet to the contrary notwithstanding. Either our profession is something, or it is nothing. In the opinion of some of our Legislators, it is as nothing, if not something worse; indeed, according to Mr. Merritt, "it should enjoy no greater privileges than a carpenter." Years spent in unravelling the mysteries of the human organization, its physiological action, and its pathological conditions, are to be deemed as nought, and the knowledge which thus accrues to the possessor, and which, one would have thought, would have eminently fitted him for appreciating the nature of

disease, and the selection of appropriate remedies to overcome or relieve it, are not to be compared with the vagaries of an old woman, in the opinion of Mr. M'Connell, or the impostures of an itinerant knave, who deals in roots and herbs, in the opinion of Mr. Merritt, the President of the Legislative Council, Mr. Flint and Mr. Richards. Most assuredly, from our Legislators we expected different things. We expected at least signs and symptoms of dignified wisdom from their seats in Parliament. In this we have been miserably disappointed, and coming from the quarter whence the opposition proceeded, we confess to a still greater disappointment. What would have been said of Lord John Russel or Sir R. Peel, had they offered an opposition to Sir James Graham's Bill because it militated against the pretensions of old women and quacks? Who so likely to know something of diseases and their management, as those who have made them the study of their lives? and who so little likely to understand anything about them, as those who have never done so at all? In the name of an intelligent and insulted profession, we have only to express our ineffable contempt for the grounds on which opposition was based against a second reading of the bill, and for the parties who so far forgot their own dignity, and what was due to an enlightened profession, as to advance them.

But with Dr. Beaubien we have to deal differently. The question for the Upper Province has become one of the profession against empirics—Thompsonian impostures and quacks. This was the true secret of opposition to the bill, and the LEARNED member for Chambly in expressing his sentiments and voting against the Bill, voted, at least negatively, in favor of imposture and quackery. Dr. Beaubien may utter his sentiments in the House, and his voice may produce *whatever effect it can* within its walls, but *we* will speak to the country, and our voice will be heard by the profession and the public in Canada at large, who shall be judges between us.

From a medical man, who professes to know something of medical matters in other countries, we have a right to expect, especially when the information is gratuitously proffered, and a line of argument is founded upon it, that his statements should be correct. Of medical matters, Dr. Beaubien has shewn himself most profoundly *ignorant*. Referring our readers to his observations, and which we assume to have been correctly reported, we have simply to observe, that the Royal College of Surgeons of London, gives no lectures whatever of its own, qualifying for its diploma, and that no such Institution exists, or ever existed as "The Royal College of Paris." The imagination of the honourable member, excited by the horrible atrocities, committed by the Board of Governors in Canada East, has carried him far beyond the boundaries of mere *fact*, and in his inveterate hostility to an incorporation of the Profession, his fancy has made him raise a figurative building which it requires but a fillip to demolish.

The bill is now, however, in spite of all the opposition afforded to it by those who countenance ignorance and quackery, and the *medical man* (save the mark!) who, "alone in his glory," joined their ranks, referred to a committee, consisting of Drs. Nelson and Smith, and Messrs. Sherwood, Boulton and Wetenhall. Its further progress we will duly chronicle.

MEDICAL PROFESSION (U. C.) INCORPORATION BILL.

Monday, March 26.

Mr. Sherwood (Toronto,) moved the second reading of this bill. He was aware that several hon. members had an objection to the principle of this bill, inasmuch as the root doctors and persons of that description considered that they had as much right to practise as those who had been regularly brought up to the profession. In Upper Canada before the Union, a bill passed the Legislature incorporating the medical profession of the Province, that bill received the Royal Assent and the profession was accordingly incorporated under it and went on for several years, acquiring a library and other valuable property, but by some influence excited at the Colonial Office in England by the College of Surgeons, the bill was disallowed after it had been in operation for some years, and now the profession had applied to the Legislature for incorporation. The principle was the same as that of incorporation of the nuns and religious societies of L. C., and the law society of U. C.; it was to agree to that principle by reading the bill a second time that he now asked the House: if there was anything objectionable in details of the measure, they could be altered in a special committee, to which he intended to refer it.

Mr. McLean seconded the motion.

Mr. Flint opposed the measure as being an undue interference with the rights and liberties of the people, and entirely at variance with the spirit of the age and country. He objected especially to the 7th and 10th clauses, which prevented any person not duly licensed from practising medicine under pain of a heavy penalty. In the back parts of the country where there were no regular doctors, the people were obliged to employ these Thompsonian doctors; besides they had a perfect right to employ them if they had confidence in them. In these days of free navigation and free trade, they ought to have a free system of medicine. This measure was not asked for by the people of Upper Canada, and he was convinced that if they passed it now, they would, next session, receive a protest from at least 50,000 of the people. He moved in amendment, seconded by Mr. Bell, that the bill be read a second time this day six months.

Dr. Nelson hoped the measure would be carried: what! in those days when protection was extended to all classes of the community, was the medical profession—one of the most important of all professions, not to receive protection? More especially when in the United States, and up to this time in Lower Canada it had been protected. What was the use of endowing and encouraging medical schools and universities for giving a good education to those desiring to practise medicine, if you let loose upon society, those persons to practise all kinds of quackery? He hoped for the safety of society and the honor of his profession that this motion would prevail.

Mr. Merritt enquired of the hon. member, whether there was any law in the State of New York, preventing any practitioner from practising?

Dr. Nelson replied, that when he was in the United States in 1839-40, and 41, the medical profession in Cash County, was incorporated—the board met once a year, and all new practitioners had to appear before it and undergo an examination.

Mr. Merritt briefly stated his grounds for opposing the bill; there had formerly been laws of this kind in New York State, but they had now been abolished, and there was nothing to prevent

any man from practising, who thought fit. He agreed with the hon. member for Hastings, that, in a country so widely populated as some parts of Upper Canada, and where the population was so much scattered, a bill of this kind would do much injustice, and cause very great inconvenience, particularly by preventing the female midwifes who were so generally employed, from practising. He thought these root doctors were doing a great deal of good in the country, and he should vote against the bill as it would deprive them of the right and opportunity of doing that good.

After a few words from Mr. Robinson in favour of the second reading of the bill, Mr. Burritt opposed it, but in so low a tone of voice, as to be quite inaudible in the reporter's gallery.

Dr. Smith was not so much for protecting the physicians, as of protecting the public from those who palmed themselves off upon the public, as understanding the practice of physic. He was opposed to some clauses of the measure, but as it was to be referred to a special committee, in which the obnoxious clauses could be expunged, he should vote for the second reading.

Mr. Flint said a few words in support of his amendment, and was followed by Dr. Laterriere who highly supported the motion.

Mr. Sherwood said that this bill was not the mere application of people who were going to build a workhouse, but was the application of the whole medical profession of Upper Canada, for the purpose of enabling that profession to take a proper standing, and enable them to prevent empirics from going about the country, who, in many cases, as he could safely say, had done a great deal of mischief. It was the request of the whole Society, and conferred on them no privilege that they did not possess under the present law, except the power of punishing quacks in a more summary manner than the present law directs. Now he had been told that there was no law in the United States for the protection of the medical profession. He would require good authority for that statement, for he could scarcely believe it. But why go to the States at all? Why not take example by the practice of the English Parliament who know full well the advantage of a thorough education, and therefore make it compulsory on every person practising medicine to be properly qualified. Many of these men had come to this colony, and with others already here demand nothing but what they had a right to expect, and they were opposed by the hon. President of the Council! If hon. gentlemen thought it was really desirable to admit old women to the practice of midwifery, he could propose it when the House went into Committee, and there could be no doubt that it would be carried. He hoped hon. gentlemen would not consent to the proposition of the hon. member for giving the bill a six months hoist, as it would in reality be a declaration that the medical profession had no right to expect protection at their hands; but they would rather aid him in making it as perfect as possible in its details in Committee.

Mr. Richards was opposed to the bill for various reasons. It appeared to him that the bill was not calculated to give the medical profession protection, so much as the power of punishing particular parties. The process of prosecuting at present, it appeared, was too tedious, and in order to satisfy the profession, it was necessary to give them the power of laying the question before a magistrate, who could at once sentence the unlicensed practitioner to a fine of £5, and send him to prison. The hon. member for Toronto had called on them to follow English practice. If the hon. gentleman would refer to the medical Review, he would find that the law for the protection of the medical profession had given general dissatisfaction at home, and had made the colleges of surgeons in Scotland exceedingly unpopular, and the effect here would be exactly similar. The hon. member appeared to be ignorant of the fact, that in those states where protective laws had existed, they have been repealed, whilst in others there never were any, and it was generally admitted that since the abolition of those laws, the regular practitioners had obtained a larger share of practice, and have been able to take a higher stand, when the quacks have been deprived of the sympathy which people had for them, than when they were liable to prosecution under the protective laws. He was opposed to the bill, also, because it would deprive sick people in the back country, where the population is spreading, and where it would be impossible to procure the services of a regular practitioner, of the only medical assistance within its reach. He was also opposed to the bill, because a large number of the medical profession did not wish it to pass; he should, therefore, support the amendment.

The amendment was then put:—

Yeas:—Messrs. Beaubien, Bell, Boulton of Norfolk, Burritt, Fergusson, Flint, Fournier, Fourquin, Holmes, Johnson, Laurin, Lemieux, Macdonald of Glengarry, McConnell, Merritt, Méthot, Morrison, Richards, Scott of Bytown, Smith of Durham, Thompson and Wilson—22.

Nays:—Messrs. Badgley, Attorney General Baldwin, Solicitor General Blake, Boutillier, Cartier, Cayley, Chabot, Christie, Davignon, Dickson, Gugy, Attorney General Lafontaine, La'Terriere, Macdonald of Kingston, Mallock, McFarland, Nelson, Papineau, Polette, Price, Robinson, Seymour, Sherwood of Brockville, Sherwood of Toronto, Smith of Frontenac, Smith of Wentworth, Stevenson, and Wetenhall—28.

Mr. Merritt replied to the member for Toronto. He had asked what was the use of Colleges, &c., unless these privileges were granted to those who had studied there. That was easier asked than answered; but those studies gave these gentlemen great advantages, and they had besides the right of incorporation, but now they wanted something in the way of privilege that no other person had. If carpenters or masons came before the House to demand such privileges as to exclude competition, it would be thought monstrous; why should the learned professions have a monopoly? He would not occupy more time, but hoped the privilege granted would be as limited as possible.

Mr. Wilson would vote against the bill because these privileges were more detrimental than otherwise to the profession. He had known two neighbourhoods in which quacks were indicted by medical men, and the feeling was so strong against the prosecutions that the medical men were driven out, whereas had they trusted to their superior abilities, derived from education, they would have driven the quacks out.

Mr. Lyon was at first disposed to vote against the bill, but found that the hon. member for Toronto was willing to alter the parts found to be objectionable.

Mr. Smith (Durham,) remarked that the present bill was more stringent than the old law, inasmuch as the offence under the latter consisted in the quack having acted for hire and gain. The present bill made it a crime to do so under any circumstances. If it passed there would be plenty of informers.

Mr. McConnell opposed the bill, because it was a sort of second edition of the medical bill in Lower Canada—the most unpopular bill which had ever been passed. The 10th clause would exclude the women, now he had once been given up by the doctors, and cured by an old lady.

Dr. Beaubien desired no other protection for the medical profession than good colleges and good professors. But it was proposed by this bill to bring the student before the college and make him pay fees for the members, without on their side being obliged to furnish any instruction. He did not want any exceptional laws for the medical profession; let the profession here form schools of medicine like the College of Surgeons of London, or the Royal College of Paris.

Mr. Morrison opposed the bill, for he believed the medical profession did not wish it to pass; first, because it was not good; second, because it would put them into antagonism with the people of the province. The people were jealous of these privileges. He was glad to hear the remarks of the hon. President of the Council, and sorry to hear those of the Attorney General. He desired if the bill were not to pass, that it should be thrown out at once, and lose no time.

The discussion was afterwards continued to a great length; but without bringing out any new arrangement against the measure.

Dr. Laterriere said, it appeared there were many quacks in Upper Canada, and the object of this bill was to check quackery, so destructive to everything good. The men who discovered the circulation of the blood, and vaccination, were not ignorant quacks, but instructed professional men. The hon. gentleman here narrated some anecdotes touching a Dr. Solomon, which we did not hear very distinctly, and concluded by answering the Hon. President of the Council by drawing a distinction between the trades of blacksmiths and carpenters, which involved no responsibility, and those liberal professions to whose care were committed the lives and fortunes of the public.

Mr. Baldwin did not see why the Hon. President of the Council, who was so ready to incorporate any companies to make boots and shoes &c., should refuse to incorporate the medical profession. He voted for the second reading of the bill, because he approved

of the principle of organising the professsion; but, perhaps, would not object to alter the details.

The question being t ien put on the main motion:—

YEAS—Messieurs Badgley, Attorney General Baldwin, Solicitor General Blake, Cartier, Chabot, Christie, Davignon, Dickson, Dumas, Gugy, Jobin, Attorney General Lafontaine, Laterrière, Malloch, Nelson, Papineau, Polette, Robinson, Scott of Two Mountains, Seymour, Sherwood of Toronto, Smith of Frontenac, Smith of Wentworth, Stevenson, Taché, and Wetenhall.—26.

NAYS—Messieurs Beaubien, Bell, Burritt, Cameron of Kent, DeWitt, Ferguson, Flint, Fournier, Fourquin, Guillet, Holmes, Laurin, Lemieux, Marquis, McConnell, Merritt, Méthot, Mongenais, Morrison, Richards, Sauvageau, Scott of Bytown, Smith of Durham, Viger, and Wilson.—25.

THE PUBLIC HEALTH.

The following bill has been introduced into the Legislature, has passed the Legislative Council, and is now before the Legislative Assembly. We sincerely trust that it will soon become law, by receiving at as short a period as possible the sanction of the Governor General, and that protective measures may be speedily adopted. It is high time indeed that some precautions were taken. The municipal authorities have had it, most unquestionably, in their power long since, to have adopted some. They might, for example, most easily have secured the removal of all filth beyond the precincts of the city; but an indifference, or an apathy, highly culpable, has characterised them in this respect. A vacant lot, at the corner of Dorchester and Bleury Street, has proved itself a convenient receptacle for the filth of that neighbourhood, and this lot being badly drained, the consequences will develope themselves in the course of a month or two. A similar receptacle exists at the farther extremity of St. Urbain Street. All last summer, upwards of fifty pigs wallowed in all the luxury of filth in a locality at the head of George Street, known under the name of Little Dublin. The filth and stench from them were intolerable, and repeated applications for the suppression of the nuisance proved unavailing. Matters still remain *in statu quo*, and a younger generation affords ample demonstration that a perpetuation of this nuisance, with all its influence on the health of that neighbourhood, is to be perpetrated. In the lower story of one house in the spot alluded to, four persons died of cholera in 1832, in the course of one week. So admirably adapted for mortality is this situation, that, under present circumstances, should the scourge re-visit us, it is impossible to estimate its full effect. We allude to these few, out of a number which are in our mind, and such nuisances are not only not prevented, but actually tolerated. For several years past, our Corporation used the most praiseworthy care to ensure the deposit of all refuse on the ice opposite the city, to be carried away in the spring; and this when there was no prospect of a severe epidemic. This year, with every reasonable prospect of the advent of Cholera, not the slightest move has been made with the same laudable object in view, but, on the contrary, the vacant lots within the city are permitted to be filled all with refuse of all kinds. We expected from our civic authorities some attention to hygienic measures for the city. Can they assign any reasonable excuse why such measures, of supreme importance, have as yet been neglected, and that in such a culpable manner:—

An Act to make provision for the preservation of the Public Health in certain emergencies.

WHEREAS it is expedient to make special provision for the protection of the public health in cases when the Province shall be visited by epidemic, endemic or contagious diseases, by enabling the Governor of this Province in Council, to issue orders and adopt measures at any time for that purpose; and whereas it is advisable to intrust the selection of the local agents in the execution of such measures to the Municipal bodies in the various localities which may from time to time be interested therein: Be it enacted, &c.

That whenever this Province, or any part thereof, or place therein, shall appear to be threatened with any formidable epidemic, endemic or contagious disease, the Governor of this Province may by Proclamation, to be by him from time to time issued by and with the advice and consent of the Executive Council of this Province, declare this Act to be in force in this Province or in such part thereof, or place therein, as may be mentioned in such Proclamation; and the same shall thereupon become and be in force accordingly: and His Excellency may in like manner from time to time, as to all or any of the parts or places to which any such Proclamation may extend, revoke or renew any such Proclamation; and, subject to revocation and renewal as aforesaid, every such Proclamation shall have effect for six Calendar months, or for such shorter period as in such Proclamation shall be expressed.

II. And be it enacted, That from and after the issuing of any such Proclamation, and whilst the same shall continue in force, the first, second, and sixth Sections of the Act of the Legislature of Upper Canada, passed in the fifth year of the Reign of His late Majesty King William the Fourth, intituled, "An Act to promote the Public Health, and to guard against infectious diseases in this Province," and so much of the fourth section thereof as provides for the trial and punishment of any person accused of wilfully disobeying or resisting any lawful order of any Health Officers duly appointed under the said Act, or of wilfully resisting or obstructing such Health Officers in the execution of their duties, shall be and the same are hereby suspended as to every place mentioned in such Proclamation, or being within any part of this Province, designated therein or included thereby; Provided always, that any person accused of having wilfully disobeyed or resisted such order, or resisted or obstructed such Officer before the issuing of any such Proclamation, may nevertheless be tried and dealt with as if such Proclamation had not been issued.

III. And be it enacted, That from time to time after the issuing of any such Proclamation, and whilst the same shall continue to have effect, it shall be lawful for the Governor of this Province to appoint by Commission under his hand and Seal, persons, to be and to be called "The Central Board of Health," and to have and execute all the powers and duties vested in or imposed on such Board by this Act, and also, such and so many Officers and Servants as he may deem necessary to assist such Board in the execution of its powers and duties; and His Excellency may from time to time at his pleasure remove all or any of the persons so appointed and appoint others in their stead; and the powers and duties vested in or imposed on the said Board by this Act, may be exercised and executed by any Members thereof; and during any vacancy in the said Board, the continuing Members or Member thereof, may act as if no vacancy had occurred; and every such Commission shall *ipso facto* be revoked or determined by the revocation of the Proclamation under which it issued as to all the parts and places mentioned in such Procla-

mation, or by the expiration of six calendar months from the date of such Proclamation, or of such shorter period as may have been expressed in such Proclamation, unless in either case such Proclamation be renewed as to all or some of such parts and places.

IV. And be it enacted, That from time to time after the issuing of any such Proclamation, and whilst the same shall continue to have effect, it shall be lawful for the Mayor, Townreeve, or other Head of the Municipal Corporation, inspecting Trustee or other Chief Municipal Officer, of any and every place mentioned in such Proclamation, or being within any part of this Province, designated therein, or of necessity included thereby, to call a special meeting of the Council or other Municipal Corporation, or of the Police Trustees of such place over which he presides, for the purpose of nominating, and such Municipal Corporation or Police Trustees are hereby authorized and required to nominate accordingly not less than three persons, being residents within the limits of their respective jurisdictions, or, in the case of a City, Town, or Village, within seven miles thereof, to be and to be called "The Local Board of Health" for such place; and such Mayor, Townreeve, or other Head of such Municipal Corporation, Inspecting Trustee, or other Chief Municipal Officer, is hereby expressly required and enjoined to call such Special Meeting within days from the receipt of a written requisition to that effect, signed by ten or more inhabitant-householders of the place under the jurisdiction of the body over which he presides, on pain of being personally liable to the penalty hereinafter mentioned; and if at any time after the issuing of any such Proclamation, and whilst the same shall continue to have effect, it shall be certified to the Governor of this Province, by any or more inhabitant-householders of any place mentioned in such Proclamation, or being within any part of this Province, designated therein, or of necessity included thereby, that the Mayor, Townreeve, or other Head of such Municipal Corporation, or Inspecting Trustee, or other Chief Municipal Officer of such place, has failed to comply with such requisition as aforesaid, within such time as aforesaid, it shall thereupon become and be lawful for His Excellency in Council, forthwith to appoint not less than three persons resident within the limits of such place, or, in the case of a City, Town or Village, within seven miles thereof, to be and to be called "The Local Board of Health" for such place: Provided always, that every nomination or appointment of a Local Board of Health, under this Act, shall *ipso facto* be revoked or determined by the revocation, as to the place within the limits of which such Local Board shall be authorized to act, or as to any part of this Province in which the same shall be included, or the whole of this Province, as the case may be, of the Proclamation under which such Local Board shall have been nominated or appointed, or by the expiration of six calendar months from the date of such Proclamation, or of such shorter period as may have been expressed in such Proclamation, unless in either case such Proclamation be renewed as to such place, or any part of this Province in which the same shall be included, or the whole of this Province, as the case may be.

V. And be it enacted, That the Central Board of Health, or any or more Members thereof, may from time to time issue such directions or regulations as they shall think fit, for the prevention, as far as possible, or mitigation of such epidemic, endemic or contagious diseases, and revoke, renew, or alter, any such directions or regulations, or substitute such new directions and regulations as to them or any of them may appear expedient; and the said Board may by such directions and regulations provide for the frequent and effectual cleansing of streets by the Surveyors or Overseers of highways and others intrusted by law with the care and management thereof, or by the owners or occupiers of houses and tenements adjoining thereto; and for the cleansing, purifying, ventilating and disinfecting of houses, dwellings, churches, buildings and places of assembly, by the owners and occupiers, and persons having the care and ordering thereof, for the removal of nuisances, for the speedy interment of the dead, and generally for preventing or mitigating such epidemic, endemic or contagious diseases, in such manner as to the said Central Board may seem expedient; and the said Central Board may by any such directions and regulations, authorize and require the Local Boards of Health to superintend and see to the execution of any such directions and regulations, and (where it shall appear that there may be default or delay in the execution thereof, by want or neglect of such Surveyors or others intrusted as aforesaid, or by reason of poverty of occupiers, or otherwise,) to execute, or aid in executing, the same within their respective limits, and to provide for the dispensing of medicines, and for affording to persons afflicted by, or threatened with, such epidemic, endemic or contagious diseases, such medical aid as may be required, and to do and provide all such acts, matters and things as may be necessary for superintending or aiding in the execution of such directions and regulations, or for executing the same, as the case may require; and the said Central Board of Health may also by any such directions and regulations authorize and require the Local Boards of Health, in all cases in which diseases of a malignant and fatal character shall be discovered to exist in any dwelling-house or out-house, temporarily occupied as a dwelling, situated in an unhealthy or crowded locality, or being in a neglected or filthy state, in the exercise of a sound discretion, and at the proper costs and charges of such Local Boards of Health, to compel the inhabitants of any such dwelling-house or out-house, to remove therefrom, and to place them in sheds or tents, or other good shelter, in some more salubrious situation, until measures can be taken, by and under the directions of the Local Boards of Health, for the immediate cleansing, ventilation, purification and disinfection of the said dwelling-house or out-house; and the directions and regulations to be issued as aforesaid, shall extend to all parts or places in which this Act shall, for the time being, be put in force under such Proclamations as aforesaid, unless such directions and regulations shall be expressly confined to some of such parts or places, and then to such parts or places as in such directions and regulations shall be specified, and (subject to the power of revocation and alteration herein contained) shall continue in force so long as the said provisions of this Act shall be in force under this Proclamation, in the parts or places to which such directions and regulations shall under this provision extend.

VI. And be it enacted, That the Members of the said Local Boards of Health, shall be called Health Officers, and that any two or more of them, acting in the execution of any such directions or regulations as aforesaid, at reasonable times in the daytime, may and they are hereby empowered to enter and inspect any dwelling or premises, if there be ground for believing that any person may have recently died of any such epidemic, endemic or contagious disease in any such dwelling or premises, or that there is any filth or other matter dangerous to health therein or thereupon, or that necessity may otherwise exist for executing in relation to such dwelling or premises, all or any of such directions and regulations as aforesaid; and in case the owner or occupier of any such dwelling or premises, shall neglect or refuse to obey the orders given by such Health Officers, in pursuance of such directions and regulations, it shall be lawful for such Health Officers to call to their assistance all Constables and Peace Officers, and such other persons as they may think fit, and to enter into and upon such dwelling or premises, and to execute or cause to be executed therein or thereupon, such directions and regulations, and to remove therefrom and destroy whatsoever, in pursuance of such directions and regulations, it may be necessary to remove and destroy, for the preservation of the public health.

VII. And be it enacted, That the expenses incurred by the said Central Board of Health shall be defrayed out of any monies which may from time to time be appropriated by the Provincial Parliament for that purpose from the Consolidated Revenue Fund of this Province; and that the expenses incurred by the said Local Boards of Health in the execution or in superintending the execution of the directions and regulations of the Central Board shall be defrayed and provided for in the same manner and by the same means as any expenses incurred by the Municipal Corporations, Councils, or other municipal bodies of, or having jurisdiction over, the respective places for which such Local Boards of Health shall have been nominated or appointed, now are, or at any time hereafter may be by law required to be defray and provided for.

VIII. And be it enacted, That no direct or regulation of the said Central Board of Health shall hav any force or effect until the same shall have been sanctioned and confirmed by the Governor of this Province in Council, and shall thereafter have been published in the Canada Gazette; and every Proclamation of the Governor of this Province in Council under this Act, shall also be published in the Canada Gazette; and such publication of any such Proclamation, direction or regulation, shall be conclusive evidence of the Proclamation, direction or regulation so published, and of the sanction and confirmation of such direction or regula-

tion as aforesaid, and of the dates thereof respectively to all intents and purposes; and every such Proclamation, direction and regulation, shall forthwith upon the issuing thereof be laid before both Houses of the Provincial Parliament, if the said Parliament be then sitting, and if not, then within fourteen days next after the commencement of the then next Session of the said Parliament.

IX. And be it enacted, That upon the issuing and publication of any such directions and regulations as aforesaid, and whilst the same shall continue in force, all by-laws made by the Town Council, Municipal Corporation, or other like body of any place, to which the same or any of them may relate for preserving the inhabitants thereof from contagious diseases, or for any other of the purposes for which such directions and regulations are by this Act required to be issued, shall become and be suspended; and upon, from and after the nomination or appointment, and during the existence, of a Local Board of Health under this act for any such place, any Board of Health or Health Officer, or other like Officer, or Committee appointed under any such by-law, shall be and remain deprived and relieved of all and every the powers, authorities, and duties conferred and imposed upon him or them by any such by-law; but in any interval which may occur between the issuing of such directions and regulations, and the nomination or appointment of such local Board of Health, he or they may, and shall exercise and perform such powers, authorities, and duties in conformity with such directions and regulations, and shall and may act in every respect as if he or they were a Local Board of Health nominated or appointed under this act.

X. And be it enacted, That whosoever shall wilfully obstruct any person acting under the authority, or employed in the execution of this act, or who shall wilfully violate any direction or regulation issued by the Central Board of Health under this act, or shall neglect or refuse to comply with such directions or regulations, or with the requirements of this Act in any matter whatsoever, shall be liable, for every such offence, to a penalty not exceeding five pounds, to be recovered by any person, before any two Justices, and to be levied by distress and sale of the goods and chattels of the offender, together with the costs of such distress and sale, by Warrant under the hands and seals of the Justices before whom the same shall be recovered, or any other two Justices; and in case it shall appear to the satisfaction of such Justices, before or after the issuing of such warrant, either by the confession of the offender or otherwise, that he hath not goods and chattels within their jurisdiction sufficient to satisfy the amount, they may commit him to any Gaol or House of Correction for any time not exceeding fourteen days, unless the amount be sooner paid, in the same manner as if a warrant of distress had issued, and a return of *nulla bona* had been made thereon; and all penalties whatsoever recovered under this act shall be paid to the Treasurer, and applied in aid of the rates or funds, of the place in which such penalties may have been incurred respectively: Provided always nevertheless, that all offences committed against this act or any of the provisions therein contained, while the same shall be in force in this Province, or in any part thereof, shall and may be prosecuted, and the parties committing the same convicted and punished therefor as herein provided, as well after as during the time that this act shall be declared to be in force in or by any such Proclamation or Proclamations as aforesaid.

XI. And be it enacted, That no order nor any other proceeding, matter or thing, done or transacted in, or relating to the execution of this Act shall be vacated, quashed or set aside for want of form, or be removed or removable by *Certiorari*, or other writ or process whatsoever, into any of the Superior Courts in this Province.

XII. And be it enacted, That in this act the following words and expressions shall have the meanings hereinafter assigned to them unless such meanings be repugnant to or inconsistent with the context, that is to say: the words "Governor of this Province," or "His Excellency" shall mean the Governor, Lieutenant-Governor, or person administering the Government of this province for the time being; the words "Governor of this province in Council shall mean the Governor, Lieutenant Governor, or person administering the Government of this province for the time being, acting by and with the advice and consent of the Executive Council of this Province; the words "two Justices," shall mean two or more Justices of the Peace acting for the place where the matter, or any part of the matter, as the case may be, requiring the cognizance of such "two Justices" arises, assembled or acting together; the word "place," shall mean a city, town, borough village, township, parish or any other territorial division recognized or designated by law as a separate Municipality or municipal division; the word "Street," shall include every highway, road, square, row, lane, mews, court, alley and passage, whether a thoroughfare or not; the word "person," and words applying to any person or individual, shall apply to and include Corporations whether aggregate or sole; words importing the singular number or the masculine gender only, shall include more persons, parties or things of the same kind than one, and females as well as males, and the converse.

"A SIGNER OF THE PETITION IN FAVOR OF THE THOMPSONIANS."

Our remarks on the Thompsonian petitions to the House in our last number, have proved a cholagogue, and the bile of one of the number has been vented upon us, in four mortal pages of *fools*-cap. We cannot avoid quoting from our rabid friend, and setting him right in one respect. "The Thompsonians freely admit that there are quacks in their ranks, and so have you in yours." We thank him for the above admission. We differ as to their number. We regard them *all* as quacks, and we deny that we "have any in ours." Our friend concedes all that we have ever insisted upon—and hence the danger to the community of conferring upon them privileges, and the utter impossibility of discovering an honest man among them, for they have all the same distinguishing characteristic.

We have not the slightest doubt of the truth of the following conclusion, which, as a specimen of our friend's erudition, we quote *verbatim, literatim et punctuatim*, thus presenting some evidence of the general style of the writer, and his pretensions:—

"You will excuse this somewhat lenthy and plain epistle it was formed under the excitement of the moment—(of which we have no doubt)—at seeing the remarks in your Journal my wish is that it may never again disgrace its Pages with the like the medical profession is an honorable one—(we think this)—and should never stoop to abuse and slander let everything stand or fall by the test of merit is the motto of a signer," &c., &c.

We promise our friend who takes so warm an interest in our welfare not so say anything more of our dear friends the Thompsonians, nor of their exquisitely scientific practice, nor of steam, nor of Lobelia, nor of Cayenne, nor of roots, nor herbs, nor of how many they killed, nor of how many they cured, nor of the "Unfettered Canadian," nor of its redoubtable Editor—of all these we shall say nothing, not one word, no—not until the next time.

TO CORRESPONDENTS.

Letters have reached us during the month from Dr. Hill (Bytown.) An immediate answer was returned, explaining matters which, as we have not since heard, we presume was satisfactory. Dr. Reynold's (Brockville) commands fulfilled; found at an early period the communication adverted to.

Mr. Woods' parcel duly arrived.

The communication of Dr. Bovell has just come to hand, with the lithographs, per express.

☞ *The medical gentleman, whose name is not recollected, but to whom the Editor of this Journal lent about eighteen months ago, two numbers of the Southern Journal of Medicine and Pharmacy, being Nos. 1 and 2, vol. 2, containing papers on the vital statistics of Charleston, S. C., by Dr. Nott, is particularly requested to return the same as early as possible. The present means is taken to draw his attention to the circumstance, and is resorted to for the reason above given.*

TO OUR EXCHANGES.

With the concluding number of the volume, we take the opportunity of noting in a particular manner the reception of our exchanges, and we return our cotemporaries our thanks for their courtesy.

Dublin Quarterly Journal, February, May, August, 1848—November and February not received.

Dublin Medical Press—Regularly.

London Medical Gazette—Regularly.

Provincial Medical & Surgical Journal—Regularly.

Braithwaite's Retrospect—June, 1848.

Ranking's Abstract—

British Record of Obstetric Medicine—Vol. 1, complete.

Gazette Médicale, Paris—Nos. 1 and 2, vol.

Medical Examiner—Regularly.

American Journal of Science and Arts—Regularly.

New Orleans Medical and Surgical Journal—Vol. 5, Nos. 1 2, and 3.

American Journal and Library of Dental Science—No number received since July, 1848

American Journal of the Medical Sciences—Regularly.

New York Journal of Medicine—Regularly.

The Annalist.—Vol. 2, Nos. 1, 2, 3. The editor's attention is particularly requested to this.

The Medical News—Received Nos. 61 to 74 inclusive, with exception of No. 68.

The Journal of Education—Regularly.

The New Jersey Medical Reporter—Vol. 1, Nos. 1, 3, and 4; Vol. 2, No. 1. Will the editor supply the deficiencies?

The American Journal of Insanity—Vol. 3, No. 4; vol. 4 Nos. 1, 2, and 4. No number has been received since April 1848.

Missouri Medical and Surgical Journal—Vol. 2, Nos. 7, 10, 11, 12; vol. 3, Nos. 1, 2, 3, 4, 5, 6, 12; vol, 4, Nos. 1, 2, 3, No number received since July, 1848.

Buffalo Medical Journal—Vol. 4, Nos. 1, 2, 3, 4, 5, 6, 9, 10.

Western Lancet—Vol. 9, Nos. 1 and 3,—2 not come to hand.

Western Journal of Medicine and Surgery—Regularly.

St. Louis Medical and Surgical Journal—Regularly.

Southern Medical and Surgical Journal—Regularly.

The Charleston Medical Journal and Review—Vol. 3, Nos. 3, 5; vol. 4, No. 1. Will the editor oblige by looking to this? this Journal used to arrive with great regularity.

Boston Medical Journal—Regularly.

We particularly request the attention of editors to the above list, and would feel particularly obliged by their attention in completing our files, which may be easily effected through our agents in New York. The *American Journal of Insanity* comes with most marked irregularity. We are particular ourselves in the issue of our exchanges to our cotemporaries, and expect the same courtesy. If our cotemporaries fail in receiving their numbers of this periodical with due regularity, we will be most happy to remedy the deficiency on the first intimation. The numbers specified are the numbers of the volumes received.

The editor of the *Dublin Quarterly* is requested to mail his numbers in future—the route selected through his publishers making his valuable periodical exceedingly late in reaching us. The cover requires to be left open at one end. We will defray the postage.

The *British Record* is placed on our exchange list. The whole of vol. 4 will be sent through the mail.

MONTHLY METEOROLOGICAL REGISTER AT MONTREAL FOR FEBUARY, 1849.

Date.	Thermometer.				Barometer.				Winds.			Weather.		
	7 A.M.	3 P.M.	10 P.M.	Mean.	7 A.M.	3 P.M.	10 P.M.	Mean	7 A.M.	Noon.	6 P.M.	7 A.M.	3 P.M.	10 P.M.
1,	— 4	+ 8	+ 6	+ 2.0	29.96	29.52	29.73	29 74	W	W	W	Snow	Snow	Fair
2,	+ 10	" 20	" 22	" 15.0	29.69	29.41	29.42	29.52	N N W	W	W	Snow	Snow	Snow
3,	" 12	" 15	— 3	" 13.5	29.85	29.65	29 98	29.83	W	W	W	Fair	Fair	Fair
4,	" 3	" 20	+26	" 11.5	29.83	29.60	29.62	29.68	S W	S W	W	Snow	Snow	Cloudy
5,	" 8	" 8	— 5	" 8.-	29.79	29.81	29.83	29.81	N W	N W	N W	Fair	Fair	Fair
6,	—11	" 5	+ 1	— 3.-	29.82	29 67	29.58	29.69	N W	N W	N W	Fair	Snow	Snow
7,	+ 5	" 12	" 2	+ 8.5	29.74	29.90	30.10	29.91	N W	W	W	Fair	Fair	Fair
8,	—11	" 15	" 17	" 2.-	30.10	29.55	29.24	29.63	N W	S S E	S S E	Fair	Fair	Snow
9,	+16	" 9	— 1	" 12.5	29.27	29.37	29.63	29.41	W N W	W N W	W N W	Snow	Fair	Fair
10,	— 8	" 9	+ 6	" 0.5	29.88	29.77	29.72	29.79	W	W	W	Fair	Fair	o'erc'st
11,	+ 5	" 11	— 5	" 8.-	29.76	29.83	29.91	29.83	N	N	N N E	Fair	Fair	Fair
12,	— 5	" 6	" 2	" 0.5	29.97	29.82	29.77	29.85	N N E	N N E	N N E	Fair	Fair	Fair
13,	" 7	" 9	" 4	" 1.-	29.83	29.76	29.81	29.80	N N E	W	S W	Fair	Fair	Fair
14,	" 5	" 15	+ 6	" 5.-	29.80	29.67	29.72	29.73	S	S W	S W	Fair	Fair	Fair
15,	" 7	" 12	— 1	" 2.5	29.77	29.69	29.70	29.72	N W	N W	N N W	Fair	Fair	o'erc'st
16,	" 10	" 9	" 8	— 0.5	29.83	29.88	29.99	29.90	W	W by S	N W	Fair	Fair	Fair
17,	" 17	" 4	" 6	" 6.5	30.12	30.09	30.10	30.10	N	N N E	N N E	Fair	Fair	Fair
18,	" 12	" 7	" 3	" 2.5	30.15	30.16	30.20	30.17	N	N	N by E	Fair	Fair	o'erc'st
19,	" 12	" 4	" 2	" 4.-	30.44	30.50	30.48	30.47	N W	W S W	S W	Fair	Fair	Fair
20,	" 14	" 7	+ 4	" 3.5	30.45	30.45	30.46	30.45	W	W	N W	Fair	Fair	o'erc'st
21,	" 2	" 16	" 15	+ 7.-	30.50	30.52	30.44	30.49	N by E	N by E	N by E	o'erc'st	Fair	Fair
22,	+15	" 33	" 20	" 24.-	30.47	30 40	30.34	30.40	E	E by S	E	Fair	Fair	Fair
23,	" 18	" 36	" 18	" 27.-	30.36	30.28	30.25	30.30	E	N E	N E	Fair	Fair	Fair
24,	" 22	" 34	" 28	" 27.5	30.22	29.99	29.88	30.03	N E	N E	N E	o'erc'st	Fair	Fair
25,	" 32	" 36	" 32	" 34.-	29.87	29.99	30.12	29.99	N E	N E	N E	Snow	Snow	Snow
26,	" 25	" 34	" 21	" 29.5	30.33	30.33	30.35	30.34	N N E	N by E	N by E	Fair	Fair	Fair
27,	" 22	" 39	" 34	" 30.5	30.42	30.43	30.42	30.42	N by E	N by E	N by E	Fair	Fair	Cloudy
28,	" 28	" 41	" 35	" 34.5	30.44	30.30	30.07	30.27	E S E	E S E	S E	Fair	Fair	Fair

Therm. { Max, Temp., +41° on the 28th
Min. " —17° " 17th
Mean of the Month, +19.16

Barometer, { Maximum, 30.52 In, on the 21st
Minimum, 29.22 " 9th
Mean of Month, 29.617 Inches.

Latitude 43°. 39′.4. *N. Longitude* 79°. 21′.5. *W. Elevation above Lake Ontario,* 108 *Feet.*—(*For the Brit. Amer. Jour. of Med. and Phys. Science.*)

Day.	Barometer at Temp. of 32°. 7 A.M.	3 P.M.	10 P.M.	Mean of 24 h.	Temperature of the Air. 7 A.M.	3 P.M.	10 P.M.	Mean of 24h	Tension of Vapour. 7A.M	3 P.M	10 P.M	Mean of 24h	Humidity of the Air. 7A.M.	3P.M	10P.M	Mean of 24h	Wind. 7 A.M.	3 P.M.	10 P.M.	Snow in. on surf.	Weather.
1,	29.339	29.507	29.633	29.486	26.8°	30.9°	26.4°	28.2	.132	.114	.096	.112	.89	.64	.65	.71	Calm.	W. N. W.	W.	4.2	Snowing till 7 a.m. Overcast all day
2,	29.400	29.439	29.441	29.436	29.2	32.8	30.4	30.3	.113	.155	.134	.132	.69	.83	.79	.78	W.S.W.	W.	W. by S.	0.2	Partially cl'ded. Sl't snow at 9 & 10 am
3,	29.788	29.840	29.764	29.782	19.4	23.1	16.6	20.4	.090	.066	.072	.087	.82	.52	.74	.77	N. W.	Calm.	W. S. W.	—	O'ct most of day Halo round m'n at 6 pm
4,	29.636	29.549	—	—	26.8	34.0	—	—	.120	.167	—	—	.80	.90	—	—	W. by S.	S.W.by W	——	—	Clear a.m. Partially clouded p.m
5,	29.633	29.650	29.588	29.614	16.0	19.6	14.2	16.5	.079	.079	.047	.071	.88	.72	.52	.71	N. by E.	N.	N. N. E.	—	Part'ly clo'd a.m & p.m Day cl'r & fine
6,	29.345	29.265	29.426	29.349	25.4	30.6	20.1	25.2	.104	.122	.080	.102	.74	.71	.72	.73	S.W.byW	W. S. W.	N.W.byN.	0.2	Cl'd till 6 pm. Cl'ds break'g 7 pm. Sn'g 3 to 6 pm
7,	29.785	29.946	29.907	29.881	10.8	15.5	7.0	11.8	.057	.070	.037	.051	.76	.75	.58	.63	N by W	N. by W.	Calm.	1.5	Generally clr, a few light pas. cl'ds Fine
8,	29.653	29.206	29.102	29.338	20.6	26.0	28.3	24.4	.085	.103	.092	.090	.79	.72	.58	.67	S. S. W.	S. W.	W.	—	Densely cl'ded, snow'g slig'tly 1 to 4 pm
9,	29.368	29.544	29.686	29.522	15.8	16.8	15.4	16.1	.069	.057	.060	.061	.70	.57	.64	.63	W. by N.	N. W.	W. by S.	1.5	Part'ly cl'd till 5 pm, Dens. cl'd remadr
10,	29.735	29.518	29.260	29.503	11.8	23.8	31.4	22.4	.051	.079	.123	.088	.67	.61	.70	.69	Calm.	S. by W.	S.W.by W	—	Cl'd all day, Sl't snow from 2 to 10 pm
11,	29.550	29.619	—	—	16.9	20.2	—	—	.061	.082	—	—	.62	.73	—	—	N. by W.	E.	——	0.5	Overcast all day.
12,	29.589	29.618	29.678	29.628	7.4	11.6	4.8	7.0	.045	.040	.034	.041	.77	.48	.58	.63	N.	N.W.byN.	Calm.	—	O'cst till 1 pm. Cl'r & uncl'd from 3 pm
13,	29.629	29.561	29.620	29.607	2.2	20.3	16.2	12 3	.021	.079	.053	.050	.69	.70	.53	.55	Calm.	Calm.	N.W.byN.	—	Partially clouded. Halo round sun 9 am. Auroral light 9 & 10 pm.
14,	29.705	29.714	29.702	29.701	8.6	8.1	8.1	3.1									W.	N. N. W.	Calm.	0.8	Gen'lly clou'd. Snowing from 1 to 6 pm
15,	29.593	29.603	29.622	29.606	1.6	6.0	1.4	2.7									W.	W. S. W.	Calm.	0.5	Partially clouded, Clear from 9 pm.
16,	29.633	29.625	29.667	29.639	6.8	11.4	6.0	3.3									Calm.	Calm.	N. by W.	—	Densely cl'd, Snow, from 3h 30m pm to midnight, Auro. arch 11½ pm to 1 am
17,	29.701	29.686	29.761	29.711	0.7	11.7	9.0	7.0									N. by W.	N. by E.	N.E.byN.	1.5	Cl'd, Snow, moderately from 1 to 9 pm
18,	29.915	29.956	—	—	5.2	13.3	—	—			—	—			—		N. by E.	Calm.	——	6.0	Passing cl'ds am, Uncl'd pm, Faint aur. light 11 and 12 pm
19,	30.256	30.284	30.187	30.236	4.6	9.6	7.9	4.2									Calm.	Calm.	Calm.	—	Gen cl'r, Pass cl'ds, Aur l't 9 to midn't
20,	30.061	30.010	30.070	30.050	11.4	19.7	20.4	16.8	.070	.106	.108	.092	.94	.96	.95	.92	Calm.	N. E.	N.E.	0.2	Cl'd all day. Snowing sli't most of day
21,	30.107	30.078	30.074	30.087	21.2	31.4	31.0	27.5	.110	.153	.160	.138	.96	.87	.93	.90	E. N. E.	E. by N.	N. E. by E	2.0	Overcast, dense clouds, and haze all day
22,	30.046	30.018	30.041	30.030	31.4	31.4	28.6	30.3	.160	.164	.138	.154	.86	.94	.88	.91	E. N. E.	E. N. E	N. E. by E	—	Cl'd till 9 pm, Clear 10 and 11 pm
23,	30.099	30.066	30.008	30.053	29.0	34.4	32.6	32.0	.137	.164	.175	.157	.90	.82	.95	.87	Calm.	Calm.	Calm.	—	Gen o'rcast, a few cl'r spaces 1 & 2 pm
24,	29.850	29.575	29.491	29.644	31.4	34.9	33.2	33.0	.169	.181	.101	.175	.86	.90	.96	.94	Calm.	E.	Calm.	—	Cl'd all day, Snowing 2 to 3 pm, Raining 3 to 10 pm
25,	29.648	29.806	—	—	35.2	35.4	—	—	.177	.206	—	—	.87	.100	—	—	N. by W.	N.	——	0.1	Cl'd, Slight snow am, Spitting rain pm
26,	30.029	30.052	30.067	30.049	34.4	36.0	34.1	34.9	.156	.176	.171	.170	.78	.83	.88	.84	E. by N.	E.	E.	—	Cl'd till 2 pm, remdr. cl'r, Aur l't 11 pm
27,	30.136	30.158	30.135	30.133	32.5	34.5	34.8	33.9	.174	.177	.171	.172	.95	.90	.85	.89	E. N. E.	E. N. E.	E. N. E.	—	Gen cl'd, Aur l't in N. at 11 pm
28,	30.131	29.985	29.900	30.013	33.6	40.6	36.1	36.5	.177	.202	.191	.187	.93	.81	.90	.87	Calm.	E.	Calm.	—	Gen cl'd, Slight spitting rain from 3 pm
Mean	29.775	29.748	29.743	29.7540	17.1	23.4	19.9	19.99	.105	.120	0.112	0.112	.80	.75	.76	.77	5.95 miles	7.65 miles	6.14 miles.	19.2	

Highest Barometer, 30.332 on 19th, at 10 a.m } Monthly
Lowest do. 29.102 on 8th, at 10 p.m } Range 1.230
Highest Temperature, 40°.6 on 28th, at 3 p.m. } Monthly
Lowest do. .. 9°.8 on 15th, at 8 a.m. } Range 50.4
Mean Max. Therm., 23,92—Mean Min. Therm., 12,90.
Mean Daily Range, .. 11°.02
Extreme Daily Range, 24° .1 from am to 2 pm, on 13th
Mean Temperature, 6 a.m, 16°.85, } Diurnal Variation, 6°.51.
" " 3 p.m. 23°.36, }

Proportion of Wind from each Quarter--
From N. 1624.4 miles.
W. 1652.9 "
S. 923.9 "
E. 1053.7 "
Mean velocity of the Wind, 6.58 miles per hour.
Maximum velocity, 21.1 miles from 9 to 10 pm, on 8th
Most Windy Day, 8th.—Mean veloc per hour, 14. 19 miles
Least do. 23rd, " " 0.83
Mean Velocity, 2 p.m. 8.65 miles, } Diurnal Variation,
" " 7 p.m. 5.20 miles, } 3.45 miles.

Temperature for February.

Year.	Mean.	Max.	Min.	Range.
1840, ...	28.3°	50.3°	10.5°	69.8°
1841, ...	23.2	44.1	1.3	45.4
1842, ...	27.9	50.2	2.9	47.3
1843, ...	15.92	38.5	9.4	47.9
1844, ...	27.72	47.9	0.6	47.3
1845, ...	26.45	49.1	4.2	53.3
1846, ...	20.80	41.9	16.7	58.6
1847, ...	22.48	41.1	0.9	42.0
1848, ...	26.23	46.6	0.0	46.6
1849, ...	19.99	40.6	9.8	50.4

Rain. No. Days.	Inches.	Winds.	Wind. Calms	Mean force.	Snow. Days.	1 inch.
S	1.475				8	
1	Inapplic	198	90	0.61	9	
S	3.625	198	90	1.03	9	
1	0.475	402	182	1.06	21	14.4
4	0.430	334	266	0.43	7	10.0
5	Imper'pt	352	224	0.99	9	19.0
0	0.000	354	222	0.65	13	46.1
2	0.550	380	196	0.69	13	27.3
4	0.775	399	201	0.47	8	13.8
2	0.240	203	85	0.47	13	19.2

The means are deduced from six observations daily, viz.: 6 a.m, and 2 and 10 p.m, and 7 a.m, and 3 and 11 p.m.
Rain in inches on surface—On 25th, 0.230; 26th, 0.010; Mean, 0.240.
Further explanatory notes will be found at the foot of all the Registers for 1845, 1846, and 1847.
No Magnetic Disturbances observed during the month of February.

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