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THE
BRITISH AMERICAN JOURNAL.

ORIGINAL COMMUNICATIONS.

MEDICAL DEPARTMENT.

ART. XL.—*Unique Anchylosis of the knee joint forwards at a right angle.* By J. A. GRANT, M.D., Attending Physician General Protestant Hospital, Surgeon to the County of Carleton gaol.

W. D. æt. 18 years, robust conformation of body and never the subject of acute inflammatory rheumatism, at 11 years of age, received a wound in the knee joint from an axe, which grazed the bone over the inner condyle, wounded the proper membrane and gave exit to a principal part of the synovial fluid. At first no particular attention was paid to the wound. After the lapse of four days, it was placed under medical treatment. The joint speedily became swollen and very tender. The synovial capsule was distended with fluid and much distorted in appearance; limb semiflexed and considerable febrile excitement. The treatment consisted in leeching, with warm applications, moderate diet and occasional purgatives, the limb being constantly retained in one position by means of a Liston's splint; as the inflammatory symptoms subsided a more nutritious diet was prescribed and when pressure could be borne, a proper uniform support was given to the joint; at the end of the tenth week he returned home, having derived marked benefit from the course pursued and in a short time afterwards moved about on crutches with considerable ease and comfort. Up to the 18th month from the period of accident, the limb remained perfectly straight, the articulation possessing a very slight degree of mobility. All pain having subsided, even when using the limb, the various means of support were unadvisedly removed. As time rolled on the limb gradually assumed a bent position forwards, from an obtuse to a right angle. Thus, for a period extending over five years, this deformity was permitted to pass, without any means being adopted to counteract its advancement. Mr. D. was considered, in his section of country, a superior rider, in consequence of which his horsemanship was frequently called into requisition, so that, between carelessness and over-

straining, the limb in its weak state was forced forwards into the rare position, of which a good idea is obtained, from the photograph taken prior to the operation being performed.

This case came under my charge for the first time on the 17th May, on which date he was entered as a patient in the General Protestant Hospital. A consultation of the medical board being convened, excision of a wedge-shaped piece of bone from the joint posteriorly, was decided upon as being most judicious; the parents however were firm in their resolve, in consequence of which, I was obliged to amputate at the lower third of the thigh, much contrary to my wishes. The operation was performed after the usual manner and at the end of the fourth week cicatrization was complete.



Examination of joint. The structures surrounding the joint appeared perfectly healthy, presenting no unusual induration or adhesion, excepting the alteration in the ligamentous connection, which was entirely monopolized by extensive ossific deposit. The anterior portion of the condyles rested upon the anterior portion of the head of the tibia, the whole interspace posteriorly being filled up by perfect ossific deposit, possessing great strength and firmness, so perfectly moulded and compactly set, as to its cancellated structure. Dimensions of joint considerably increased. Patella dislocated outwards and ankylosed to the outer surface of the external condyle. Head of fibula intact. During a period of at least two years, the limb has been sufficiently strong to support the entire weight of body, which was accomplished by bringing the foot downwards and backwards at the same time flexing the sound limb almost to a right angle, thus forming, by this position of the limbs, a perfect quadrangle.

Remarks. The pathological conditions involved in the above case render it of particular interest. Prior to so abnormal a position taking place, there must

have been considerable softening and consequent relaxation of the various articular ligaments. About the period that angularity was first observed, Mr. D. suffered from a fall, in consequence of which much pain was experienced in the joint for several days afterwards. From the strength of the limb and the power of motion attained, we would infer that there existed ossific consolidation of the surrounding structures to a considerable extent. The hamstrings did not appear to exercise that control over the joint which is so remarkable in *contracted knee*, and the action of the extensor muscles of the thigh upon the head of the tibia, although modified as to their power, by the ossific attachment of the patella, still without a proper counterpoise, owing to the peculiar change in the posterior anatomical relations of the popliteal boundaries, may in a measure have assisted this forward motion. Taking into consideration the assistance derived from the leg in its present position, it possesses a most decided advantage over the contracted knee, which in the worst forms is rendered completely useless, the patient not being able to place either the foot or the toes to the ground. On examining the leg a considerable deposit of subcutaneous fat was observed, but the muscles appeared healthy, only wanting in a degree their proper florid color; the heads of the gastrocnemius were considerably attenuated, and apparently in a state of fatty degeneration, not an unfrequent occurrence about inflamed joints as pointed out by Coulson, Erichsen and others. Judging from the peculiarities of this case, the deductions are, that the position of the limb was attained by softening, consequent gradual relaxation, and subsequent successive consolidation of the ligamentous structures in and around the joint, assisted as to its anterior angularity by the extensor muscles of thigh.

OTTAWA CITY, July 1st, 1861.

ART. XLI.—*Removal of an adherent Tumour of the Uterus.* By EDWARD VAN CORTLANDT, M.R.C.S.L., late consulting Physician to the Ottawa General Hospital, and to the County of Carleton Protestant Hospital.

Miss D., aged 24, a dress-maker by calling, and with a most unearthly chlorotic appearance, had been labouring for about two years with what seemed to be aggravated dysmemorrhœa, and for which she had been treated by two medical gentlemen, whom she had previously consulted. I happened to be sent for during one of her paroxysms, and found in the extreme severity of her symptoms and the great propulsive efforts attending them, much to awaken doubt and to require further investigation. I proposed a vaginal examination, which, after great reluctance, was submitted to, when I discovered a hard fleshy *uneven* tumour, entirely wanting in the smooth grizzly feel more or less peculiar to fibrous tumours of the uterus. Owing to the restlessness of the patient, I could not define any patulous mouth, or anything to indicate where the os uteri really was. Large and repeated doses of morphine served to allay much of the patient's suffering, but did not tend in any way to moderate my curiosity about her case. On subsequent examination I found a small portion of the tumour had protruded through the os uteri, and I had to carry my finger round its base before I could make out its relative position, but which I speedily ascertained by discovering

the sharp edges of the latter, reiterated efforts enabled me to introduce the end of my index finger, when I detected clearly and unmistakably that the tumour did not hang loosely from a pedicle, but that it was partially attached to the sides of the uterus by intermediate adherent filaments, to break through which was the next object. Owing to the extreme rigidity of the parts, I could not reach the fundus of the uterus with my finger, but I found a ready and most applicable and useful agent in my female catheter (one of the modern shape). By carrying this round between the tumour and the walls of the uterus, I succeeded in breaking down several of the filaments, when I had to desist, from copious hemorrhage. The patient would not consent to any other attempts being made until the next catamenial return, by which time the tumour had grown considerably, and protruded further through the uterus. I finished on this occasion what I had began with my catheter, getting it without much difficulty to the pedicle of the tumour. Then bending a silver director I passed it through the base, using it like the handle of a corkscrew. I did not stop until I had the extreme gratification of showing the tumours to the attendants. Very considerable hemorrhage supervened, which was arrested by plugging the passage with shreds of linen and ice water. The plug came out the next morning during micturition. A sanious discharge continued for some six or eight days, since which the patient has progressed rapidly, and is regaining her original healthy colour.

Ottawa, July 20, 1861.

ART. XLII.—*A case of Keloid Tumour*, reported by DAVID L. PHILIP, M. D.

Martha McRiley, aged eighteen, unmarried, was admitted to the Montreal General Hospital on the 14th January, 1861, under the care of Dr. McCallum. Her family history is good, as she has not inherited any scorbutic or hereditary disease. She states that the present tumour commenced about four and a half years ago in the form of a small boil, the cicatrix left by it beginning to spread gradually. It was removed by a Medical man in Montreal about two years ago, but almost immediately began to grow again, and becoming painful she made her appearance at this hospital at which time it presented the following appearance: It is of a quadrilateral shape, situated in the right presternal region; length, five inches, breadth four and a quarter. It is elevated above the surrounding skin about three lines, and more at the circumference than in the centre. On a first examination it looks like the cicatrix of a burn, the only difference being the elevation above the skin. Its color is light pink, lighter in the centre than at the circumference and is marked on the surface by a coarse net-work of prominent white lines or ridges, the direction of which correspond to the long diameter of the Kelis and demonstrates the mode of growth.

From the white centre the redness proceeds in rays, and is like so many roots shooting into the substance of the unaffected skin. The surface of the Kelis presents a smooth polish like the cicatrix of a burn, and a sort of semitransparency; several vessels are also observable on the surface, apparently veins.

To the touch it presents a hard resisting structure like fibro-cartilage, invested by a soft velvety-looking skin. The central portion is denser and harder than the circumference, and the white lines have all the rigidity of bands of fibrous tissue. Below the principal tumour there is at present a small Keloid of a horizontal direction, of a pale pinkish color and inclining towards the principal one; examined by the hand a hard cord is detected between them. The patient at present suffers from excessive itching and pain of a smarting or shooting character, and occasionally a darting sensation like an electric shock. Pain does not endure long but occurs frequently and is excited by any movement which produces pressure on it, such as bringing her shoulders together or lying on her side in bed. She feels no increase of pain during the changes of the weather and it undergoes no alteration of color from mental or bodily excitement or elevation of temperature. She has no tumour of this sort on any other part of her body and the lymphatic glands in the neighbourhood are unaffected.

The treatment pursued was with a view to cause its resolution. Locally a firm compress of padded lint was applied by means of a figure of eight bandage and the following was given.

℞ Pot. Iodid. ʒj.
Tr. Conii. ʒii.
Aquæ ʒvi.

Of which a tablespoonful is to be taken three times a day. This treatment was pursued for some time with apparent benefit, but the patient left the hospital (as she was going home to Ireland) before the results of this plan of treatment were ascertained.

Remarks.—The above case is interesting chiefly from its rarity. It is the first case, if I mistake not, which has been admitted into the Montreal hospital. The learned Gibert, physician to the Hospital Saint Louis, and Professor of cutaneous Pathology, in his extensive hospital and private practice has only observed two cases of it. The disease has no tendency to undergo carcinomatous degeneration, although M. Alibert has classed it in the group of *Dermatoses Cancéreuses*, doubtless from the schirrous hardness of the tumour which constitutes it.

He recognises two varieties: the true Keloid or Radiciform and the false Keloid or Larvée. The last is only mentioned to put us on our guard against the resemblance which exists between the cicatrices of certain burns and the veritable Keloid. M. Alibert who first regarded this tumour as incurable has since known a spontaneous cure effected by resolution. The treatment by extirpation with the knife is now justly abandoned as it hastens the growth of the tumour on its reproduction, which is almost certain to take place.

WOODSTOCK, July 27th, 1861.

LONDON CORRESPONDENCE.

No. 6.

Whilst I write, there is a good deal of excitement amongst the Fellows of the College of Surgeons in regard to the forthcoming election of councillors on the

4th inst. Probably many of your readers are already aware that three members of council ought to go out annually by rotation, and the custom has been to reelect them; so that when any man has been once elected on the council, there was every probability of its being a permanent birth, unless some such occurrence should happen as is now about to take place. The three retiring men this year are Messrs. Bishop, Solly, and Macmurdo men to whom there can be no objection: but the advocates for the introduction of a little new blood and vigour into the governing body of the college, have brought forward Messrs. John Adams, Wm. Fergusson, and Thomas Paget of Leicester, in place of the others. Without some effort of this kind, it would be many years before such a man as Mr. Fergusson could be elected upon the council, and certainly there is none more fit by reputation and position than he is for that honour. From all that I can learn, the election of these three last named surgeons seems to be pretty sure, but the Fellows must come and vote personally, which many of those who reside at a distance will hardly take the trouble to do.

From the doings of the College of Physicians, it is quite probable that in the course of a short time, that body may become the popular one of the profession. Many young men from abroad, who heretofore would have taken the membership of the College of Surgeons, now prefer the License of the College of Physicians. I was glad to see that Dr. Francis W. Campbell, one of the graduates of McGill College has taken the License; and Dr. Connell, of New Brunswick, a young man who is a graduate of Philadelphia, is about to undergo his examination for the License. For the last few weeks I have been in occasional communication with both of them, and am much pleased with their intelligence, and the zeal which they evince for their profession. I augur for both a successful career in whatever part of the country they may settle.

I must mention that the College of Physicians now consists of three grades, Fellows, Members, and Licentiates. The last are allowed to dispense physic, but not the two first, and the Fellows are exclusively elected from among the Members. The fee for the License is £15 whilst the membership of the College of Surgeons is £20. This information may be useful to future Canadian aspirants for English honours.

I attended the Harveian oration delivered at the college on the 25th June by Dr. Goolden in the Latin language, before a large circle of great dignitaries and others. All present certainly listened very attentively, and looked as if they understood all that the orator was telling them. The weather was warm and many persons got drowsy towards the conclusion, and for a little while the President, Dr. Mayo, had a few minutes of napping.

We have beautiful, warm weather now, and I think it is probable that this time, we may enjoy a delightful summer. There is very little sickness about worthy of mention, and the medical cases which present themselves for treatment in hospital practice are chiefly chronic. Small-pox has perhaps been a little more prevalent than usual, and lately Mr. Henry Gray, F.R.S., of St. George's Hospital became a victim to it after a few days illness. Although only 35 years of age, he had already achieved a name in the annals of science, and was on the eve of being elected one of the assistant surgeons of St. George's, when death

snatched him away from the scene of his earthly labours. He was the author of the article "throat and windpipe," in the forthcoming volume of Holme's system of Surgery; some chapters of my own made on that subject, before its publication were lent to him, and he has, I believe, given me credit for what was legitimately my own in them. He also took much interest in the Laryngoscope. His work on anatomy, from the manner of its illustrations, is well adapted to teach the student, and is deservedly popular.

Mr. Pollock, who has many old friends in Canada, and Mr. Prescott Hewett; are now full surgeons, to St. George's Hospital, by the retirement of Mr. Caesar Hawkins and Mr. Cutler; and Mr. Henry Lee (late surgeon to King's College Hospital) and Mr. T. Holmes are the new assistants. Mr. Lee, it is said, will soon be full surgeon, by the retirement of Mr. Tatum, which will compensate for his taking at present a lower grade than he held at King's. But there he had no beds, whilst at St. Georges he has.

The tenacity for hospital appointments is well shown at Bartholomew's, where Mr. Lawrence, who is, I believe, 80 or upwards, is still to be seen. But there he receives a thousand a year, which is easily earned and therefore hard to relinquish. At that hospital, some weeks back, I saw Mr. Holmes Coote remove an exostosis from the left transverse process of the 7th cervical vertebra in a young woman, with complete success. The good anatomists amongst your readers will readily understand the nature and importance of the parts which were in danger of being wounded by his knife. A good recovery ensued, without a bad symptom. I may mention, however, that the bony tumour had so pressed vessels and nerves forwards as to produce numbness in the left arm and complete absence of the radial pulse.

On Tuesday, 25th June, I was at the meeting of the Royal Medical and Chirurgical Society, the last of the session. There was a very interesting paper by Mr. Sibley on the obliteration of certain arteries by emboli, a subject which is gaining ground every day, and one that explains the cause of hemiplegia and other forms of paralysis in the young, especially when we find endocardial disease. I recently saw a case at Guy's under the care of Dr. Wilks of a boy who had hemiplegia from several severe and continuous shocks of a galvanic battery. The symptoms were well marked, and he perfectly recovered in a little while under treatment, and went out without any of the paralytic symptoms remaining. There was however an endocardial bruit on his discharge, and I think it is reasonable to infer that the severe shocks must have caused some slight coagulation within the blood, which for a time interrupted the circulation through the cervical arteries. The case will shortly be published with another somewhat similar from another hospital.

Mr. Hulme brought a patient before the society who had an absence of the iris from both eyes, and he was examined by Mr. Dixon and others present with the ophthalmoscope. The ciliary processes could be distinguished, and a portion of the crystalline lens was opaque. Such a deficiency is believed to be very rare but Mr. Hulke informed me that there had been as many as half a dozen cases of the kind at the Royal Ophthalmic Hospital, Moorfields, within a twelvemonth;

and he said these cases proved that the iris was not actually necessary for the regulation of sight, for in all vision was pretty good.

In taking Dr. F. W. Campbell through the museum of St. Bartholomew's the other day we came across the anterior half of a tongue bitten off by an epileptic patient, when in a fit. It was the first preparation of the kind I had ever seen, and certainly well illustrates the violence of the spasms, and their influence upon the jaws.

At a recent meeting of the Zoological Society, I listened with much interest to a short paper upon the breeding of some of the carnivora in confinement, by Mr. Bartlett. It appears that lions breed more than any others of the feline animals in confinement and have as many as 4 to 5 at a litter; this occurs in the Zoological Gardens. In travelling menageries they breed more frequently still, which is attributed to the excited kind of life they lead. The tigers rarely breed under the same circumstances just narrated. A cross between the lion and the tiger was successful in the gardens, the offspring retaining more of the appearances of the latter. The cross is also unsuccessful between the jaguar and the leopard; the latter breeds freely in captivity, with a litter of three and sometimes five cubs; whilst the lion has usually the latter number. The puma or great American panther has bred 5 or 6 times in the Society's gardens, but never has more than 2 cubs, sometimes but one only. The fecundity of the ocelot is about the same. The young of all the feline tribe are very similar in their general appearance, but modified by the particular spots or stripes of the parent. These facts are instructive.

Your readers may remember that in my last letter I referred to Liston's lancet case which is in the possession of Mr. Henry Thompson. Since then I have examined the grooved staff upon which Liston cut almost the whole of his adult cases for stone. Mr. T. Carr Jackson, the well-known surgeon of Weymouth St. Portland Place, is the happy possessor of it. The groove is situated between its convex and lateral aspects and is so large that Mr. Jackson compares it to a gutter. He used it himself upon a patient from Preston in Lancashire, the subject of stone for 2 years—a tall quaint man who stated that he had passed water every 10 minutes for that period of time. He became quite fat a short time after the operation, and is still living.

Whilst on calculous subjects I may mention that the other night (7th May) Mr. Henry Thompson showed to the Pathological Society, the bladder and prostate gland of an old sailor who had been paraplegic for 20 years, and bed-ridden the last four. The gland was enlarged and filled with loculi containing small reddish brown calculi, giving to the gland a curious nested appearance. Although the specimen was much appreciated, to some extent its interest was lost, by the intentional omission of who the patient was during life. It appears that he was Nelson's signal-man, and known as such; he it was who hoisted the signal with the expressive words that—"England expects every man to do his duty."

At the same meeting was shown the tongue of an unfortunate speechless negro, which had been excised for epithelial cancer with success by Dr. Fiddes of Jamaica. This gentleman had already performed a similar operation with success

in the same part of the world, the particulars of which appeared in the Edinburgh Med. Journal, I believe for 1859. In the second case the operation was done in Dec. 1860, in the manner adopted by Syme, sawing through the symphysis of the lower jaw, separating the 2 halves, dividing the lateral attachments of the tongue, and with the hyoid bone as a guide detaching the organ itself. On examining the specimen however, it was noticed that the cancerous disease which led to extirpation was not bigger than a nut. The operation was not considered justifiable for such a small amount of disease. Dr. Fiddes will however console himself with the reflection that he has excised the tongue twice with success.

Great activity is prevailing all through the country in making early preparation for the Great International Exhibition of 1862. Judging from the newspapers, you appear to be rather backward in Canada, but I hope ere this letter appears that some active steps will have been taken, to enable it to be as well, if not better represented than in 1851. As I reside on the spot I shall be most happy to lend my assistance in any way that it can be found useful, for I happen frequently to come into contact with many individuals who have been already nominated to certain appointments in connection with the exhibition.

The British Medical Association meets this year at Canterbury the latter part of this month; and the British Association for the Advancement of Science at Manchester in September. I purpose, if time will permit, to attend both, and will not fail to give you a short account of each.

London, 3rd July, 1861.

LETTER FROM LONDON.

BY FRANCIS W. CAMPBELL, M.D., M.R.C.S.E.

Time flies rapidly, and I was not aware so many weeks had passed since I sent you a few lines from "auld Reekie," till I saw them in the columns of the "Journal." Since then I have passed a short time in the fine city of Dublin, and am now, and have been for some little time, in this busy metropolis—this splendid field for Medical and Surgical observation. In my last letter I promised to give in my next some of the written questions, given at the Edinburgh University examination, which I now do. Three questions on each subject were given, and four hours allowed in which to answer them.

Physiology.—1. Enumerate three examples of excito-secretory action describing each, and giving their incident and excident nerves.

2. Describe the extrusion of the ovum and the process of impregnation.

3. State any two theories that have been given to account for the stoppage of blood in inflammation.

Chemistry.—1. Describe the preparation of Chlorine; give its leading properties, and state in what manner it acts as a disinfectant.

2. Show the relations of æthers, and alcohols in the homologous series, commencing with Methyl, and ending with Amyl.

3. What is the constitution of an ordinary fat in its relation to a compound æther; and what are the chief fats and fatty acids found in the human body?

Anatomy.—1. Describe the parts as they successively come into view in the dissection of the groin, down to the subjacent muscles, including the femoral sheath and its contents.

2. Describe the arrangement and structure of the cortical structure of the kidney, involving the description of the pyramids of Ferrier, with arterial and nervous distribution.

3. Give the anatomical characters of the plain or unstriped muscular fibre, and state a few of the more important structures in which it occurs.

The number of students in Edinburgh from the British North American colonies is about thirty. I noticed that you published an abstract of Mr. Pettigrew's paper, on the distribution of the nerves of the heart. During my stay in Edinburgh I had the pleasure of this gentleman's acquaintance, and examined his numerous dissections. They are very elaborate, and a large amount of credit is due him for the very great labour he bestowed upon them. With these few observations I will take leave of Edinburgh.

While I was in Dublin, the Summer session at all their Schools began, and I was able to hear many of their lecturers, but time will not permit me noticing any of them. I was frequently at the Meath Hospital where I received the greatest possible kindness from Dr. Stokes, and saw many rare and interesting cases of heart disease under his care. For strangers however St. Mark's Hospital offers great attractions, Mr. Wilde the eminent Surgeon-oculist being the backbone of this institution. Here are to be seen an immense variety of eye and ear affections. This gentleman's urbanity and kindness to strangers is so well known that I was not surprised to meet constantly there, graduates from every quarter of the globe availing themselves of its privileges. Mr. Wilde still remembers several graduates of McGill, who in years gone by attended his class, and enquired very kindly after them. Dr. Churchill whose name stands so prominently forward in the list of midwifery authors, still retains his vigor. I had the pleasure of meeting him at a meeting of the Dublin Microscopic Club. He is much pleased with the position his work has taken in America, and is in every respect a genuine specimen of a real Irish gentleman.

On arriving in London I at once reported myself to Dr. Gibb, an old Montrealer, whose kindness and attention to the graduates of his *alma mater*, is so well known, and who so ably fills the part of London correspondent to your Journal. This great metropolis, from the number of its Hospitals, affords a splendid field for Medical and Surgical observation, and for this reason London now ranks as the first school in Europe. To the Canadian student the two men whose names as London Surgeons are most familiar to his ears will be Fergusson and Erichsen; and once having seen them operate—they will leave such an impression of "perfection" on his mind, that time will not efface it. There are many other Surgeons of note, and many fast rising attached to the London Hospitals; among the former I may mention Mr. Laurence, whose hair white as the driven snow gives him the appearance of a venerable father in Surgery. He still ably fills his part at St. Bartholemew; and I am told that now when he is verging on 81, his hand is as steady as it was twenty-five years ago—most certainly he is a beautiful operator. Mr. Paget and Mr. Stanley are also Surgeons

to this Hospital, which from the large number of its beds, (800) always furnishes an interesting variety on operating days. At King's, Mr. Fergusson, and Mr. Bowman are the "big guns," and at the University Mr. Erichsen and Mr. Wharton Jones. Mr. Fergusson stands boldly out as the champion of re-sections here, and is ably supported by many of the Hospital Surgeons. I have seen several re-sections of the knee, and all are progressing most satisfactorily. The many methods that are adopted at the various Hospitals for the administration of chloroform—is somewhat amusing to one who has followed the practice of the Montreal General Hospital, and pinned his faith to the towel, folded in the form of a cone—the quantity of chloroform given being always carefully measured. With one exception I do not remember an instance in London where the amount of chloroform administered was measured. The general method adopted is to have a square piece of lint folded double, and a piece of oiled silk stitched on one side; the chloroform is poured on this, till it is all but completely saturated, and it is then held close to the patient's nose. Mr. Glover, a Fellow of the Royal College of Surgeons—has very recently invented a method for administering chloroform which he says is completely devoid of danger, and his entire time is now devoted to the administration of this anæsthetic. He attends at the University Hospital on operating days, and administers it to the patients about to be operated upon. It is a somewhat complicated apparatus, and difficult to describe—yet I will make the attempt. Mr. Glover has slung over his back an enormous silk bag which is filled with atmospheric air containing *three per cent. of chloroform*, and from this bag is a long tube, at the end of which is a mouth and nose piece; through this tube is inhaled the anæsthetic vapour, which in five minutes, according to Mr. Glover, puts the patient in a profound sleep. The method in which this bag is charged, so to speak, with this chloroform vapor, is as follows:—The mouth piece is unscrewed from the tube, which is fastened to the side of a small circular silver box, which contains inside, I believe, a small reservoir of hot water, around the outside of which is placed several folds of blotting paper. A certain amount of chloroform is injected by means of a syringe, into this kind of double receptacle, and is taken up by the blotting paper. From the other side of this box is another small tube connected with a bellows, something in the shape of a concertina, which is made to contain a known quantity of air when full, on compressing the air out of this bellows it rushes over the blotting paper into the bag, in its passage taking up the entire amount of chloroform. Regarding this method, Dr. Jenner, lately appointed Physician to Her Majesty, in the place of the late Dr. Baly, says: It is the only rational method of administering chloroform.

The Royal College of Physicians of London, hitherto the most exclusive Medical Corporation in the Kingdom, has lately decided to grant licenses to practice to all those who pass its examination; allowing such to style themselves Licentiates. Previously such was not the case, there only being fellows and members. The Apothecaries' Hall took offence at this, and determined to test the legality of the step. The trial took place a couple of months ago, and was decided in favor of the College of Physicians. The "Hall" examination is generally here looked upon as "not being much." The examination for the

College of Physicians' license, embraces a written, an oral, and, if I may use the term, a bed-side examination. At the last examination which took place about a month ago, the following were the written questions in Anatomy, Physiology, Chemistry, Materia Medica, and Practical Pharmacy:—

1. Give fully the relations of the abdominal aorta, and of the common carotid artery.

2. What nerves supply the larynx, and how are they distributed? What are their functions as ascertained by experiment, and what is the mechanism by which irritating matters are prevented from entering the air passages?

3. Sketch the minute anatomy of the kidney, and state the average and daily amount, and chemical composition of the urine in a healthy male adult.

4. Enumerate the structures successively met with in dissecting down to the intestinal canal, from the surface of the body in a space bounded above by the tenth rib, below by the upper border of the os innominatum, internally by the spines of the vertebræ, and externally by a line from the outer end of the cartilage of the seventh rib, to the anterior superior spine of the ilium.

5. Describe the attachments, vessels, and nerves of the diaphragm. What is its function?

6. Mention the parts between the outer surface of the spinal cord, and the inner surface of the spinal canal, specifying their probable uses.

1. Give the decompositions occurring during the formation of Calomel, and of the white precipitate of Mercury.

2. Enumerate the preparations of Antimony, and describe the decompositions occurring during their formation.

3. What are the tests for sugar in the urine? State the sources of fallacy connected with the tests.

4. Describe by diagram the chemical changes occurring when sugar is converted into carbonic acid, and alcohol.

5. State the uses of Belladonna, and its preparations in the treatment of disease.

6. Describe by diagram the chemical changes occurring when alcohol is converted into Ether by the agency of sulphuric acid, and into acetic acid by oxygenation.

I merely give these as a matter of interest to Canadian Students who may think of visiting this great metropolis. I met a few days ago Dr. Logan, a graduate of McGill College, who is attached to one of the Medical Journals here.

London, July 1, 1861.

REVIEW DEPARTMENT.

ART. XLIII.—*A practical treatise on Military Surgery.* By FRANK HASTINGS HAMILTON, M.D., &c. &c.,. New York: Ballière Brothers. 1850. 8vo., pp. 234.

The volume whose title precedes these observations, is an eminently practical work, on a branch of medical duty little known to the majority of surgeons, and

is especially opportune in its appearance, as its object is to enable the large corps of surgeons and assistant surgeons, attached to the various regiments doing duty in the field in the unfortunate civil war now raging in the United States, and who have been taken, in the majority of instances, from the duties of civil practice, to discharge their new functions in the most efficient manner possible.

We have stated that the volume is opportune in its appearance. Few surgeons in civil practice are acquainted with the duties devolving upon the army surgeon in the time of war. These embrace a far wider range than the former has the slightest idea of, and in truth the education which adapts a surgeon for the ordinary duties of civil practice falls far short of that which is necessary to the military surgeon. Hence in England at the present day, those who seek the office of surgeon in the army are compelled to undergo an additional course of instruction upon subjects not usually elaborately dwelt upon in the ordinary training of a surgeon for civil practice, and especially with regard to military surgery and hygiene. This important deficiency in medical education has been forcibly and painfully urged upon the attention of the military authorities in England, and whatever faults may have been committed hitherto, the British Government is now taking the greatest care to improve this condition of matters. Unfortunately in the United States, this has not yet been attempted; while the few works on Military Surgery which have been published, and these chiefly in England and France, are scarcely within reach of the majority of surgeons of the United States army. Hence Dr. Hamilton's work, drawn up with great care, and with a full knowledge of the importance of his subject, with an especial adaptation to the peculiarities of the climate of his own country, moreover, is presented to us at the right time, when the people are engaged in a fratricidal war, which none deplore more than we Canadians do.

The volume opens with an eloquent introductory lecture delivered by the author at the opening of his course on military surgery at Bellevue Medical College, New York, in the month of April of this year. The subjects of the rank and authority of the medical officer are herein ably discussed, and although it is perfectly true in regard to the former, that while in almost every other national service, the due position of the medical officer has been recognized, it has only been very recently, 1858, that the Queen's warrant was issued establishing his proper rank and position in our own, a tardy act of justice, not granted until after repeated representations, but which had been accorded in the American service since the year 1847. According to the warrant alluded to, the relative rank of the medical officer is as follows: The staff or regimental assistant surgeon ranks as a lieutenant, and after six years full pay, as a captain; a staff or regimental surgeon as major; and a surgeon major as a lieutenant colonel; a deputy inspector general of hospitals as a lieutenant colonel, and after five years full pay service as such as colonel, and an inspector general of hospitals as a brigadier general, or after three years full pay service as such as a major general. Still, however, the old division of officers into combatants and non-combatants seems to be held, and in the author's sweeping condemnation of this absurd division we heartily concur; and in fact as regards courage, in our opinion that of the medical officer far transcends that of the other officers of the line,

because his duty has to be discharged at the imminent risk of his life without the excitement which ordinarily impels men directly engaged in battle. Upon this subject we cannot forbear making the following extracts :

If exposure to hardship and danger is to be the ground upon which rank is to be conceded to officers of the army or of the navy, we think the claim of the medical officers may be easily determined. The medical officers are exposed to the same hardships on the march or in cantonment as the officers of the line; and while the latter have to incur the hazards of battle only occasionally, perhaps but once in a campaign, the former may be said to be doing battle daily, being constantly subjected to the dangers of pestilence by their exposures to the contagions and infections of crowded and unwholesome hospitals. We have not the statistics before us upon which to base a positive statement, but we entertain little doubt that, were the facts known, it would be found that in proportion to the number employed in any campaign, the number of deaths, or of invalided in the medical staff, by the ordinary casualties and exposures of the service, is greater than in any other department.

But as compared with the quartermaster or subsistence officers, the hazards of the medical officers are undefinably greater. The services of the first are never required on the field; while the surgeons are expected to accompany their respective regiments until the action commences—and then only to retire to some position of comparative, but not absolute safety. The instances upon record in which medical officers have been wounded and killed upon the field of battle, when in discharge of their appropriate duties, are numerous. In savage warfare very little respect is usually paid to any theoretical distinctions between combatants and non-combatants; and in civilized warfare the distinction is by no means constantly observed by an excited and disorderly soldiery.

Surgeon Dunigan writing from the Crimea during the siege of Sevastopol, states, "already one medical officer has been killed and two or three wounded. The first Mr. O'Leary, Assistant Surgeon of the 68th Regiment of Light Infantry, was actually cut in two by a cannon-ball while in the act of assisting a wounded seaman. It is only to be wondered at that more casualties have not occurred among the medical officers, for during the heat of the fire they are constantly called from place to place, running along the batteries, through the line of fire, in quest of the wounded. During the second bombardment this peripatetic system was very trying and fatiguing, for the soil was heavy and tenacious from the torrents of rain that then deluged the trenches; and instances occurred where officers boots drew off while running along to assist the wounded **** "On the whole," he remarks, "this trench duty is very trying and hazardous; and in performing it, the medical men run the same dangers, if not more, certainly not less, than the executive officers, who are generally stationary in a battery, while the medical officer as ubiquitous as possible, is rushing in all directions to succor the wounded."

Dr. Jarvis, surgeon in the U. S. Army, in a letter dated Oct., 1846, describing the attack upon Monterey, says—"The nearest and only shelter that presented itself to me for the wounded, falling every moment under a most destructive fire, was a quarry-pit, four or five feet in depth, and the same in breadth. Several of these were contiguous, and to them I directed the wounded to be carried. By stooping we were protected from the shots, which, however, became every moment thicker, owing to the fact that our troops had by this time advanced within range of the enemy's fire, and the moment they perceived a party of men bringing the wounded to us, they directed all their guns upon it. I had already performed one amputation and was preparing for a second, when two or three fugitives rushed into the wounded that lay there crowded together, saying that a large body of lancers were approaching. So little credit did I attach to their report, which I ascribed rather to their fears than to the actual presence of this dreaded description of troops, that I never raised my eyes to observe them, which circumstance doubtless saved us all. Had I been discovered, all would have been massacred, as in their headlong fury they would neither have delayed to ascertain our cha-

nacter or profession, nor have paid much respect to our patients. Several soldiers who had sought an adjoining pit with an officer were slain."

The life of Larrey was frequently exposed to the most eminent hazards upon the field of battle. At Waterloo, he was taken prisoner, and was on the point of being shot, after having been robbed of his watch and purse, when he was recognised by a Prussian surgeon, and his life saved.

We wish, moreover, to remind the officers of the executive department of the army, that while there are many points of antagonism between their duties and those of the medical department, there are also some points of parallelism, and such as ought to suggest a sympathy and fraternity of feeling. If bravery is a quality of excellence in those who call themselves the "fighting men," when have medical men, either in or out of the army, shown themselves cowards? Napoleon always called his medical officers "my brave surgeons;" and we believe that no class is less amenable to the charge of cowardice than medical men generally. They are trained in a Spartan school, under, if we may so term it, a law of ethics which allows no man to turn his back upon danger. Whatever may be the peril, they are expected to go wherever their services are needed. They make no great ado about it; nor are their names often mentioned in the official reports; and still less often are they breveted for soldierlike conduct; yet they go, wherever they are called, quietly about their business, alone or in small detachments, in rain and in snow, by night and by day, on the march and on the bivouac, through watchfulness, and fastings, and fatigue, into the midst of malaria, contagion, and battle.

We challenge any man to-day to point us to an educated physician who has fled at the approach of pestilence, or who has hesitated to enter the trenches, or to face the batteries, if required to do so, in the performance of his legitimate duties. Even when the strict letter of his instructions forbade his exposure, the medical officer has seldom been backward to accept any duty which the exigency seemed to impose upon him.

The conclusion of this interesting lecture is occupied in the consideration of the authority which should be vested in the Army Medical Corps. There can be no question that the Medical officers of an army should exercise a complete control over their own department. To what extent this is permitted now in the British army, we are not able to say, but during the Crimean War, if our memory serves us rightly, such was the subordination of the Medical department of our army, that although the necessary medicines were known to be in store and on land, and although our sick troops were perishing, the red tapeism which prevailed permitted them to remain where they were until Florence Nightingale broke through the routine and the door together. There can be no doubt that everything connected with the Medical department of the army should be vested in that department exclusively, and with it no interference whatever should be permitted. The author's remarks upon this subject are so apposite, and the systems of the French and English armies in this respect so well contrasted that we take the opportunity of quoting the following observations:

We conclude then, that to the medical officers ought to be intrusted the complete control of the medical department, because upon the preservation of the health of the troops depends in a great measure the success of every expedition; because no others than medical men are, by their education and habits, qualified to perform this duty; because no one else is competent to decide upon the proper location of a hospital, its construction, ventilation, or general arrangement; no one else can determine what is necessary for the sick, in the way of diet, clothing, medicines, etc.; no one else knows when rooms are overcrowded, and are in danger of becoming pestilential, or when patients can be removed with safety. In short, because officers of the executive de-

partment, from the entirely distinct nature of their pursuits, whatever they may believe to the contrary, do actually know as little of hygiene, medicine, and surgery, as they do of engineering. Because, moreover, medical men are supposed to be qualified, they are appointed for the express purpose, and because, without authority, they are unable to carry out their own views, and it is impossible, therefore, that the public service can receive the full benefit of their ability.

Fortunately, recent events in the Crimea and in Turkey have furnished an opportunity to test, in some degree, the relative value of the two systems as supplied directly to the medical department.

The French army sanitary system is exceedingly complicated, and its details are made out in the most elaborate manner; nothing is left to conjecture; every duty is defined so explicitly that there can be no chance of error. As to authority to deviate from these rules, they have none. Each hospital is placed under the charge of an officer of the line, called the Military Intendant, whose only qualification for this position is that he possesses military rank, by virtue of which he is entitled to command. The medical officer merely prescribes and makes surgical operations, dresses wounds, and *suggests*. He cannot command the most subordinate attaché of the wards. He cannot, in theory, order a nurse to dispense a medicine, or a sick soldier to leave his bed, except through the Military Intendant.

In the British service, the system is much less elaborate, and there is much less precision in the rules while govern its details. So that, to the casual observer, it seems imperfect, and contrasts unfavorably with the French system; but the British surgeons are permitted to exercise a certain amount of authority over their own department, such as is not allowed to the French surgeons.

In the allied expedition against Russia, of 1856, the British medical officer had authority to command over the hospital orderlies, the nurses, and the apothecaries. He was permitted to regulate the general hospital police, to give orders, and to enforce their execution in relation to the hygiene, medication, and subsistence of the sick.

The result, fairly traceable to these apparently insignificant, but as every medical man knows them to be, important practical differences, was that the English army closed its campaign with a loss, by death or invaliding, of less than one-third of the troops, while the French had lost more than one-half of their whole number.

It must be understood also that by far the largest proportion of those who died or were invalided in these campaigns we thus lost to the service by epidemics, such as the cholera, dysentery, &c., which were in a great measure capable of prevention. The proportion lost by wounds received in battle was very small, probably not more than one in ten or fifteen.

Whether, as more than one writer has intimated, the French were compelled to make a hasty peace, because their forces were broken and disheartened by the progress of disease amongst them, we are not prepared to say; but however this may be, it is certainly capable of mathematical demonstration that without large additional conscriptions, and we may add, some change in the condition of the sanitary police of the army, the emperor would have been compelled soon to close the war on the part of France by a disgraceful retreat.

M. Baudens does not hesitate to declare the imperfection of the French regulations as contrasted with those of their English ally, and to intimate the real source of their own misfortunes. "The English hospitals," he remarks, "were remarkable for cleanliness. We have seen that this quality did not exist in ours. The difference is partly due to the higher and more independent military position which the English surgeon holds, and which entitles and enables him to exercise greater authority in hygienic measures. His ordinary sick-diet table is more ample and varied than the French, and the surgeon can order what extras he thinks proper for the sick. Indeed, the English camp was abundantly supplied with stores and comforts of all kinds; to which circumstance is to be ascribed its preservation from scurvy and typhus in 1856."

To the crowding of sick tents and huts into a confined area, in opposition to the protests of the army surgeons, both in the Crimea and at Constantinople, this writer ascribes the persistence of the cholera, and the prevalence and ravages of typhus and hospital gangrene. The army intendants and the medical officers entertained wholly different opinions as to what constituted overcrowding. The intence functionaries "adhered to the strict letter of the military rule : so long as the patient had the regulation allowance of cubic feet, overcrowding was an impossibility ; while physicians saw it to exist from the moment when disease was aggravated, and its fatality augmented by reason of too many sick being congregated within a given space.

What can be more conclusive ? Admitting that some minor embarrassments might arise from an occasional collision of authority between co-ordinate branches ; still is it not too plain to allow of a doubt, than to subordinate a department with which are intrusted such vast interests, to a department wholly unacquainted with its duties, is to put the whole army in extreme peril, and to place the results of the expedition almost upon the hazards of a die ?

The position which we assume, however, is that, so far as experience goes, there is no evidence that by rendering certain departments of the army co-ordinate the danger of collision is increased. On the contrary, we believe that by this method alone can collision be effectually prevented. They will have less contact, either personal, ceremonial, or official ; consequently, we believe, there will be less jarring, less jealousy, less crimination, and more faithful service.

The remainder of the volume, divided into thirteen chapters, refers to the following subjects : the examination of recruits ; their general Hygiene ; their bivouac, accommodation, tents, &c. ; Hospitals, preparations for the field ; Hygienic management while on the march ; conveyance of sick and wounded soldiers ; Gunshot wounds, amputations ; the employment of anæsthetics ; and finally gives a succinct account of the three scourges of an active military campaign, Hospital gangrene, Dysentery and Scurvy. In an appendix which appears at the conclusion of the work, we notice an engraving of a new bullet forceps invented by Dr. Moses, U.S.A., which in our opinion presents advantages over the one in ordinary use. It consists of a canula, enclosing a moveable steel blade, divided at the extremity into three branches with incurved points. These branches as they are forced through the canula expand, and by application to the ball are made to grasp it with a tenacity proportionate to the force with which the canula is pressed over them.

Dr. Hamilton is entitled to the thanks of the Army Surgeon for the timely appearance of his book. It will supply him with many a hint which he needed, and guide him through many a dubious path. A careful study of it must qualify him for his duties, which will be found to differ most materially from those of ordinary civil practice. The author is already most favourably known to the profession as a writer, and as a practical surgeon, and the work which we have been commending cannot but add to the high reputation which he has already acquired.

ART. XLIV.—*Annals of the Botanical Society of Canada.* Vol. 1. part 2, from March 8 to March 28, 1861. 4to.

This Society continues vigorously its work, and the present part contains the proceedings of its fourth and fifth meetings. At the former was read a paper by

Prof. Lawson, being an abstract of recent discoveries in botany and the chemistry of plants. 2. A list of plants on the south and east shores of Lake Superior and north shore of Lake Huron, by Robert Bell, Corr. Memb., 3. A supplementary list of trees and shrubs growing around Lake Huron and Superior, by the same author. 4. On the economical use of the *Sticta pulmonaria*, by A. T. Drummond, F.R.S.C., and 5. A report on the Hubbard squash.

At the fifth meeting letters were read from Sir W. J. Hooker, and Prof. Balfour, and a paper from the former entitled "Suggestions to the Members of the B. S. C., with reference to a colonial Flora." 3. A paper on the *Asclepias incarnata*, by Alex. Logie, and a list of plants found in the neighbourhood of Hamilton, by the same gentleman.

It is evident that this Society still keeps up its energy, and long may it continue to do so. In another page will be found an interesting article alluding to this new Society from the pen of Dr. Seemann, of Hanover, Germany, to which we solicit attention, as Canadian science is there regarded from a German point of view.

ART. XLV.—*Atlas of Pathological Anatomy, illustrative of a Clinical Treatise on Diseases of the Liver.* By FRED. THEOD. FRERICHS, Professor of Clinical Medicine, formerly of the University of Breslau, and now of the University of Berlin, &c. Part I containing twelve carefully coloured steel engravings. Translated and edited by CHARLES MURCHISON, M. D., F. R. C. P. L. London and Edinburgh: Williams and Norgate, 1861. 4to.

We have to thank the Honorary Secretary of the New Sydenham Society, Dr. Fenwick, for the above Atlas of Plates, illustrative of the first volume of Frerich's celebrated work on "Diseases of the Liver," the first volume of which the Society published last year. This is a valuable addition to that volume, and consists of twelve plates, with numerous coloured steel engravings, executed in the highest style of art, and corresponding letter-press. The first plate exhibits the appearances presented by the liver, skin, and kidneys, in a case of jaundice. Plates 2 and 3 relate to acute atrophy of the liver, with the varying forms of Leucine and Tyrosine. Plate 4 represents chronic atrophy of the liver and atrophy from compression. Plates 5, 6, and 7, are devoted to representations of Senile atrophy, and fatty degeneration of the liver in its various degrees. Plate 8 to Hypertrophied and Hyperæmic fatty liver. Plates 9, 10, and 11 to Melanæmia, and its effects on the liver, brain, and kidneys; and the last plate of all exhibits drawings characteristic of the appearances presented by hyperæmia of the liver, as produced by diseases of the heart, the whole of the plates and drawings being intended to illustrate Frerichs' first volume on diseases of the liver. The engravings and their colouring are most beautifully executed, and exhibit the high perfection which this kind of art has attained. We are astonished that the publishers can afford so much for so small an amount.

We understand that the volume may be obtained from the Honorary Secretary by the subscribers to the New Sydenham Society for the sum of 12s. 6d. stg.

PERISCOPIC DEPARTMENT

MATERIA MEDICA.

ON CHLOROFORMIC SOLUTION OF GUTTA PERCHA.

By WILLIAM HODGSON, Jr.

NOTE.—Soon after it was known that gutta percha would dissolve readily in chloroform, Mr. Hodgson introduced the dark colored, impure solution, as an application for abraded surfaces, in lieu of court-plaster. Subsequently, about eight years ago, he ascertained a method of depriving the solution of color, so as to yield, by evaporation, a colorless layer when applied to the skin. At the request of Dr. George B. Wood, Mr. Hodgson cheerfully communicated his formula for the use of the Pharmacopœia Committee, and with the sanction of those gentlemen, we publish the recipe in advance of the Pharmacopœia. The following is a transcript from the report of the College of Physicians, of Philadelphia, on the United States Pharmacopœia.—*Ed. Amer. Jour. Pharm.*

LIQUOR GUTTÆ PERCHÆ CHLORIFORMICUS.

Chloroformic Solution of Gutta Percha.

Take of Gutta Percha, in small slices.....One Ounce and a half.
 ChloroformTwelve fluid-ounces.
 Carb. of Lead, in fine powderTwo Ounces.

To eight fluid-ounces of the chloroform, contained in a bottle, add the gutta percha, and shake occasionally, till it is dissolved; then add the carbonate of lead, previously mixed smoothly with the remainder of the chloroform, and having shaken the whole thoroughly together, several times, at intervals of half an hour, set the mixture aside and let it stand for ten days, or until the insoluble matter has subsided, and the solution has become limpid, and either colorless or of a slight straw color. Lastly, decant, and keep the solution in a glass stoppered bottle.—*American Journal of Pharmacy.*

CANNABIS INDICA.

(EAST INDIAN HEMP.)

THE attention of the medical profession is frequently called to the therapeutical properties of this article; and an occasional doubt is expressed, concerning the reputation it has attained as a valuable medical agent. The cases in which it has been used, are scattered through the medical journals of many years, and have not, in any article I have met with, been collected and arranged so as to be of use to the practitioner for reference. No doubt some of the prejudice which may have arisen, is from expecting too much from it. The effect produced by it in its different forms, varies like that of opium both in kind and degree, with the race of men that use it, and the individual to whom it is administered. The evidence in its favor, so far as my experience goes, as well as the evidence I have accumulated, though it may fall short of the character given it by many who value it highly, is such as to make it one of our most valuable agents, and deserving of the confidence of the profession to the same extent as other articles of equally diversified application.

I propose to consider briefly, its history, physiological effects, and remedial employment.

There has been considerable difference of opinion with respect to the true native country of this plant. Willdenow says Persia. Gmelin thinks it is a native of Tartary. Thunberg found it in Japan. Miller remarks that its Greek appellation is evidently taken from its Oriental one. Reichard assigns it to Persia, notwithstanding its growing wild in Europe, has been affirmed by Pliny and Dioscordies. It is unquestionably, a plant of the Persian region, from which it has traveled, on one hand, into Europe, and on the other, into India; so that the varieties produced by climate have, by many, been thought to be distinct species; that grown in Europe being called the *Sativa*, and that grown in India the *Indica*. Drs. Roxburgh, Royle, and others, were unable, when in India, to observe any difference between the plants of the plains and those of the hills of India; nor between both of these and the European plants. The Indian secretes a much larger proportion of resin than the European, and a marked difference is observed, in that respect, in India, between plants grown in the plains, and those grown on the mountains, as well as when grown thickly together or wide apart. The natives cultivate the plants wide apart to enable them to secrete fully their resinous principle; while in Europe, the customary thick sowing, moist and dull climate, are unfavourable to a due secretion of the peculiar resinous principle; but are favourable to the production of an abundance of excellent fibre. The tropical regions, producing largely the resin, are unfavourable to the production of fibre, it being comparatively worthless.

The principal forms in which hemp is met with, in the markets of the East, are,

1. *Gunjah*. This is the whole plant, dried when in flower, or after having flowered, from which the resin has not been removed.

2. *Bang*, *Subjee*, or *Sidhee*, consists of the large leaves and capsules without the stalks.

3. *Hashish* or *Haschisch*, consists of tops and tender parts of the plant collected after inflorescence.

4. *Churrus*, of Nepal and Hindostan, is the concreted resinous exudation from the leaves, slender stems and flowers, removed with the hand, or more generally, by causing men clad in leathern dresses to run through the field, among the plants, brushing against them with violence; the resin adheres to the leather, and is subsequently scraped off and rolled into balls, in which state it is sold. Another and better variety, which commands a much higher price, is *Momeea*, or *Waxen Churrus*; this is collected by hand, and sells for a large price, often fabulous. In Nepal, it is stated, the leather suit has been dispensed with, and the resin is collected upon the skin of naked coolies.

5. *Alcoholic Extract*, prepared by exhausting the dried *Gunjah* with alcohol and evaporating; collecting the resin and washing it of all inert principles. This is, in fact, the active resinous principle of the plant, and is little inferior to the *Churrus* in medicinal value.

Undoubtedly, the resin which exudes naturally, and that obtained by the use of alcohol, are mixtures of several substances, possessed of different properties. Upon this point, a writer remarks that, "the complex composition of opium justifies such an opinion, and the analogy of the plant will differ in different countries, so that the *Churrus* of India, and the *Haschisch* of Syria, may produce different effects on the same constitution."

These points have not, as yet, been sufficiently investigated, either chemically or physiologically, and the subject offers an interesting field to experimenters.

Forms in which hemp is used.—Among the ancient Saracens, and the modern Arabs, in some parts of Turkey, and generally throughout Syria, the preparations of hemp in common use were, and are yet known by the name of *Haschisch*, *hashash*, *heesheesh*. A common mode of preparation is by boiling the leaves and flowers of the hemp in water to which a certain quantity of fresh butter has been added, evaporating the decoction to the thickness of a syrup, and steaming; the butter becomes charged with the active resinous property of the plant, and has a green color. This preparation is said to retain

its properties a long time, and when used, is mixed with confections and aromatics,—camphor, cloves, nutmegs, mace, and not frequently with ambergris and musk. The confection used among the Moors, is called *El Mogen*, and is sold at an enormous price.

The *Majum* or *Madjoun*, used by the Mahometans, particularly the more dissolute; is the *Gunjah* or cannabis leaves or flowers, milk, ghee, poppy seeds, flowers of the thorn-apple, powder of nux-vomica, and sugar or honey, made into a kind of electuary; sometimes cloves, nutmegs and other aromatics are added. The term *Madjoon*, or *Madjoun*, is also used by the Turks, for an inebriating preparation made with opium, and is often used when speaking of opium itself.

The Malays, Crawford informs us, cultivate the plant only for smoking. The Hottentots use it both as a beverage and for smoking, for intoxication, and call it *Decha*. The dried flowers are called, in Morocco, *Kief*; a pipe of which, of less size than the English pipe, is sufficient to intoxicate. The use of the hemp to produce intoxication, is not confined to the Orientals, and with them it is frequently mingled with other substances of reputed aphrodisiac virtues, to enable it to administer more effectually to the sensual gratifications, which are the grand objects of life among many of the Orientals. It is also cultivated by the negroes of Brazil, who doubtless brought the habit with them from Africa. In Russia, Poland, and other neighbouring countries, the peasants are fond of parched or roasted hemp-seed; and it is said the nobles of these regions, not unfrequently find it an agreeable condiment.

The use of hemp is no less extended than it is ancient. The Chinese were acquainted with its use, as an anæsthetic, as early as the third century of the Christian Era; and a celebrated Chinese physician is said to have operated on his patients, after having rendered them insensible by means of a preparation of wine and hemp powder. The ancients are said, by Herodotus, to have excited themselves by inhaling its vapor.

Johnston mentions the following: "Homer makes Helen administer to Telemachus, in the house of Menelaus, a potion prepared from *Nepenthes*, which made him forget his sorrows, and this plant is stated to have been given her by a woman of Egyptian Thebes, and Diodorus Siculus states, that the Egyptians laid much stress upon this circumstance, arguing that Homer must have lived among them, since the women of Thebes were actually noted for possessing a secret by which they could dissipate anger or melancholy." This secret is supposed to have been a knowledge of the hemp. Under the name *bang*, or *beng*, it is also mentioned in the Arabian Nights, translated by Lane, as the narcotic used by Haroun al Raschid and other heroes of the tales.

From the Arabic name of hemp, *Haschisch* pronounced *Assis*, and its use by a famous sect, about the eleventh century of the Christian Era, called the *Haschischins* or *Assassins*, has come down the word now naturalized among us—Assassin. These men were subjected to the most seductive impressions, when under its influence, were led to believe themselves the chosen instruments of a supernatural power, and are said to have performed barbarous acts. This is however denied by some writers, who urge that history has confounded the acts of this sect with those of the Saracen army, during the wars of the Crusaders. When intoxicated with it, they were in the habit of rushing into the camps of the Christians, and committing great havoc, being totally regardless of death.

Many interesting incidents of its early history could be furnished, did space permit.

The action of Hemp on man is so various that when we read the several descriptions given, differing so widely, we would scarcely suppose we were considering the same agent; but it is, perhaps, no less remarkable, than the every day exhibitions we witness of alcohol with which, being more familiar, we give less attention. The great variety of phenomena presented in the use of the latter, according to the natural disposition or temperament of the person, and the condition of mind, as well as to the quantity, alternately elevating or depressing in its effect, or producing the extreme of kind or brutal emotions, can, to a certain extent, be observed in the other.

The mental phenomena upon a subject possessing an imaginative faculty in a high

degree, when fully developed, is exceedingly interesting and curious. One writer describes it as follows: "When it first begins to act, the effects of the *Haschisch* may be considerably diminished, or altogether checked, by a firm exertion of the will. By degrees, however, the power of controlling at will, and directing the thoughts, diminishes, till finally, all power of fixing the attention is lost, and the mind becomes the sport of every idea which arises within itself or is forced upon it from without. We become the sport of impressions of every kind. The course of our ideas may be broken by the slightest cause. We are turned, so to speak, by every wind. By a word or a gesture our thoughts may be successfully directed to a multitude of different subjects, with a rapidity and a lucidity which are truly marvelous. The mind becomes possessed with a feeling of pride corresponding to the exaltation of its faculties, which it is conscious had increased in energy and power. The slightest impulse carries it along.

"The errors of perception, in regard to time and place, to which the person is liable during the period of fantasia, are remarkable. Minutes seem hours, and hours are prolonged into years, till at last all idea of time seems obliterated, and the past and the present are confounded together."

M. Aubert describes the influence upon him in the following language: "I was engaged in conversation when I felt a prickling sensation in my feet, and in my head a stricture which gave way suddenly, and my skull seemed empty. Every object wore a new aspect; my companion's face assumed a grotesque expression; I burst out a laughing and continued to laugh for almost an hour. The merest trifle renewed my mirth. Meanwhile the most varied and whimsical ideas coursed swiftly through my mind. I experienced the most perfect sense of comfort. For me there was no longer past, present, or future; the fleeting moment limited my whole existence. Then followed a calm, and sleep stole over me. The whole night was but one long delightful dream. On awakening, I remembered perfectly all that had taken place, and my head was not heavy nor my mouth dry, as it would have been after a debauch in opium or wine."

Dr. Christison relates the following concerning hemp: "On trying Mr. Robertson's extract once for toothache, I found that about four grains taken about 3 a. m., caused in an hour cessation of pain, a pleasant numbness of the limbs, giddiness, a rapid succession of unassociated ideas, and impossibility to follow a train of thought, frequent intervals of sleep, and slight increase in the force of the pulse. Next morning there was an ordinary appetite, much torpidity, great defect and shortness of memory, extreme apparent protraction of time, but no peculiarity of articulation or other effect; and these symptoms lasted until 2 p. m., when they ceased entirely in a few minutes after taking lemonade. On another occasion, I took one grain of the extract dissolved in spirit. I felt a peculiar numbness creeping through my body and limbs. On lying down, the numbness continued, but in fifteen minutes my sensations became agreeable. I laughed heartily several times, answered questions incoherently, and immediately forgot what they were about and what I had answered. Delightful reveries came over me and whatever I looked at became lost, as it were, in a maze; the lamp appeared to be slowly turning round, and when I lost sight of this, the red lines on the paper of the room appeared to intertwine in a most beautiful manner. The most remarkable effect was the constant succession of new ideas, each of which was almost instantly forgotten. When roused to tea, I ate ravenously without feeling satisfied. I slept soundly at night, afterwards, and the next day was stupid and forgetful, but was much improved by drinking lemon-juice."

Dr. Pereira states that, on Orientals the inebriation or delirium produced by it, is usually of an agreeable or cheerful character, exciting the individual to laugh, dance, and sing, and to commit various extravagances—acting as an aphrodisiac, and augmenting the desire for food. In some it occasions a kind of reverie. It renders others excitable and quarrelsome, and disposed to acts of violence.

Dr. O'Shaughnessy describes a singular form of insanity, occasioned by an incautious use of the hemp, and which is as singular as the delirium tremens by the prolonged use

of spirituous liquors. He says it is at once recognized by the strange balancing gait of the patient, a constant rubbing of the hands, perpetual giggling, and a propensity to caress, and chafe the feet of all bystanders, of whatever rank. The eye wears an expression of cunning and merriment which can scarcely be mistaken. In a few cases the patients are violent; in many highly aphrodisiac, in all that we have seen vocacionally hungry; there is no increased frequency of circulation, or any appearance of inflammation or congestion, and the skin and general functions are in a natural state.

Dr. Hooke, in his paper upon Indian hemp, in 1689, notices the various odd tricks shown by persons while under the influence of this plant, and says that when this condition subsides, the patient finds himself *mightily refreshed and exceedingly hungry*.

An asæsthetic, it relieves pain, and may be employed as an anodyne. Mr. Donovan found that under its influence his sense of touch and feeling gradually became obtuse, until at length he lost all feeling, unless he pinched his arm severely.

In larger doses it produces a cataleptic condition, in which the muscles are moderately contracted, but flexible and pliant, and the limbs retain any position or attitude in which they may be placed. Dr. O'Shaughnessy gives an interesting case of this kind.

It does not appear to affect the secretions much. The testimony is strongly in favor of its increasing the appetite, and very little that it causes nausea. It neither causes dryness of the tongue nor constipation of the bowels; and its effect upon the bronchial secretions, is beneficial than otherwise.

Its habitual use is said, by Dr. Stille, to produce consequences no less mischievous than are produced by alcohol and opium; the face becomes bloated, the eyes injected, the limbs weak and tremulous, the mind sinks into a state of imbecility, and death by marasmus is the ultimate penalty for the overstrained pleasures it imparts. We are not acquainted with any case of death directly resulting from the poisonous action of Cannabis; but several are recorded which illustrate its effects in excessive doses.

We shall now consider, as briefly as possible, the diseases for which it has been employed, under their several heads.

Tetanus.—Dr. Christison states, that Dr. O'Shaughnessy treated several cases of tetanus with apparent success. In one, ascribed to cauterization of the hand by a quack mixture of incandescent charcoal and tobacco, a state of intoxication was excited by large doses of the extract of hemp, and the spasms were gradually put an end to; but death ensued in the end from mortification of the hand. Another patient consumed one hundred and thirty-four grains of the extract, and was ultimately discharged from the hospital cured. A third case, with similar results, is detailed. At the Native Hospital, in Calcutta, Mr. O'Brien treated seven cases of tetanus, and in four of them he employed ten grain doses. The result was almost immediate relaxation of the muscles, and interruption of the convulsive tendency. Four of these cases recovered. A case in the practice of Mr. Richard O'Shaughnessy is also detailed, where the disease was connected with suppurating wounds of the scrotum. The hemp had no effect for four days, and then the patient became tranquil, with fewer paroxysms, and the appetite good. When the hemp was intermitted, the symptoms became aggravated; latterly, the hemp caused much excitement, and was therefore discontinued. The last case is one of infantile convulsions, where very large doses were given, and where the narcotic action greatly relieved the symptoms. The child recovered. This gentleman is confident that the resin is capable of arresting the progress of tetanus, and that, in a large proportion of cases, it will cure the disease.

It would certainly appear from the above facts, that Indian hemp has proved of service in the treatment of tetanus, as it occurs in India. How far this result has been obtained in Europe, I shall now describe.

That I may not extend my observations to too great a length, I shall limit my remarks to the treatment of tetanus, as observed in cases in private practice, and in the Edinburgh Royal Infirmary.

Prof. Miller has provided me with the following remarks:—

"My own experience speaks loudly in favour of the hemp. I can now record three fortunate cases under its use—all traumatic tetanus—and a case which proved fatal but where great alleviation of suffering was produced.

"The first of these was a girl, aged seven, admitted to the Royal Infirmary, October 18, 1844. She had received an extensive injury of the middle finger of the right hand a fortnight previously. Inflammatory swelling and pain became intense, and there was a tendency to spasmodic flexion of the fingers and wrist. On the 23rd she was observed by the nurse to take 'a kind of fit,' becoming rigid, having difficulty in opening the mouth and in swallowing, and complaining of pain in the jaws. At visit, she seemed perfectly well. A brisk purge was ordered, and, lest the case should prove tetanus, ten drops of tincture of hemp were prescribed to be taken every four hours. Next day the symptoms were well marked without any influence from the hemp. The finger was then removed, and the simplest dressing applied to the wound. The dose of hemp was increased to twenty drops, and after five doses, she slept; but the following day the symptoms were aggravated. Turpentine enema was ordered, and ice to the spine—thirty drops of cannabis to be given hourly. In the evening there was rigidity, but no spasm; the hemp to be given every half hour; after which she became drowsy, and at twelve next day she was much improved. Aconite was now substituted; but as the spasmodic attacks became more severe, hemp was again given, with the effect of producing sleep. She continued to improve till the 25th November, the dose of hemp being gradually reduced; producing, when given, drowsiness, or calm sleep; it was soon discontinued, as it then seemed to excite the circulation. Throughout the whole period of its use, its effect on the appetite was most obvious, the craving for food being at times absolutely voracious. After this no more medicine was given, and recovery was complete.

"The second case occurring in private practice, was that of a boy, about the same age who had simple fracture of the thigh, with compound and comminuted fracture of the great toe. The treatment and result were the same.

"The third was a boy, rather older, who had compound fracture of the bones of the arm. Treatment again resulted in cure.

"In these cases a few doses generally induced sleep, with marked mitigation of the spasms. The period of narcotism did not exceed two or three hours, the sleep was deep and unbroken, and seemed to be refreshing. It was followed by no headache, or other apparent inconvenience. The most remarkable effect observed, was the tolerance of the remedy, whereby a girl, aged seven, took every half-hour, and sometimes many hours in succession, doses of hemp sufficient to narcotise an adult."

In these cases, Mr. Miller is inclined to give the hemp credit for a chief share in the cure.

In 1846 the virtues of hemp were tested in a case of tetanus in the Royal Infirmary, in the wards of Dr. Duncan. In 1847 another case presented itself, where hemp was administered. At that time sulphuric ether was much used as an anæsthetic, and it was thought probable that it would be of service in this case. The patient inhaled it at frequent intervals during a whole afternoon, with decided, but only temporary relief. After this cannabis was given, without its physiological action being attained by nearly an ounce and a-half of the tincture; it was not persevered with. Ether was again tried and also opiates with some benefit. The patient died on the thirteenth day.

The first of these cases was very accurately observed, and the following report of the case, from the journal, will be found to have considerable interest:—

James Mackay, a railway laborer, was admitted under the care of Dr. Duncan, October 20, 1846. He had received a slight lacerated wound of the hand a week before, and tetanus had commenced on his admission. The wound appeared to be healing. He complained of great uneasiness, particularly about the neck and spine, of some rigidity of the jaws, which could only be separated three-quarters of an inch, of inability to protrude the tongue, and of commencing spasm of the neck and upper part of the back.

He complained also of a "burning about the heart." His expression was anxious, with but little "risus." His thirst was great, but swallowing difficult. He perspired profusely. The spasms of short duration, recurred once or twice every minute; pulse one hundred and fifteen to one hundred and twenty, soft. Opening medicines were ordered and at eleven o'clock tincture of hemp was given, repeated in doses of fifteen or twenty drops, with appreciable effect. On the 21st the bowels were not opened, though a turpentine enema was administered. The spasms were more violent and general, and a touch caused general spasm. He had not slept; one hundred and twenty to one hundred and forty drops had no effect. The doses were increased to sixty or eighty drops every three-quarters of an hour, and croton-oil was given, producing free action of the bowels; and in the evening the spasms abated, but the hemp caused only slight dosing at intervals. The tincture was ordered to be continued, and strong beef-tea to be drunk.

On the 22d swallowing was easier, the spasms less violent, but not less frequent; one hundred drops were given at half-past eleven, and continued about every half hour till four o'clock, when drowsiness was quite decided; he was not readily roused, even by the spasms which, though as frequent, were not so intense. At nine o'clock drowsiness was passing off; copious stools, colored as by the medicine, were brought away by injection; one hundred and thirty drops were given, and repeated at midnight, at which time he was much relieved, but suffered from cough. On the 23rd the spasms were again gaining strength, no hemp having been given for nine hours. A drachm of the tincture was given, and repeated at eleven, when he became quiet. The doses were continued till evening, when he took mince-collops and beef tea without difficulty, and the bowels were copiously relieved.

On the 24th, at visit, the spasms were absent, but the chest symptoms were worse, with general mucous rale, and frothy sputa mixed with blood. Drowsiness had been kept up by doses of a drachm to a drachm and a half. In the evening he was much weaker, but quite sensible, with a desire for food. On the 25th he was perfectly free from spasm, but was evidently dying from accumulation of mucous in the chest. Very little hemp was given. He died at 8 p. m.

In this case six ounces of O'Shaughnessy's tincture of Indian hemp were given in all, being equal to one hundred and forty grains of the extract. The extract for the tincture was reputed the best in Edinburgh. The doses at first were evidently too small. The examination of the body was not permitted.

It is a safe conclusion, from these facts, that Indian hemp deserves further trial in the tetanus of Europe, as well as in that of hot climates. I would particularly urge, however, the necessity, in all such trials, of making certain, by experiment on healthy persons, that the preparation to be used is good. For the present there is no other satisfactory test of quality.—*Jour. Mat. Med.*

PREPARATION OF PERMANGANATE OF POTASH.

Béchamp recommends the following method: In an iron basin ten parts of powdered binoxide of manganese are mixed with twelve parts of fused caustic potash; a little water is added to the mixture, which is rapidly dried, and introduced, while still hot, into a tubulated stoneware retort, and a current of pure, dry oxygen passed into it. To the neck of the retort a tube is fitted, just dipping under mercury. The absorption of oxygen is very rapid; it is complete when it bubbles through the mercury. The cooled mass is then exhausted with hot water, and a current of carbonic acid passed through the solution, by which the manganate is transformed into permanganate; when the solution has the characteristic color of the permanganate the current of gas is stopped, the oxides of manganese are allowed to settle, and the clear solution rapidly evaporated and allowed to crystallize. In general a pound of binoxide gives five or six ounces of permanganate at the first crystallization.—*The Druggist.*

CAMPHOR MIXTURE.

The following are two forms of this mixture, neither, in our opinion, equalling the simple solution in water, which that fluid will take up :

Parrish's camphor mixture. ℞—Aquæ camphoræ, f ʒ iij. Spiriti lavendulæ compositi, f ʒ j. Sacchari, ʒ j. Misce. Give a tablespoonful every two hours in diarrhœa and cholera, adding ten drops of laudanum when there is much pain. This preparation was originally prescribed by Dr. Parrish, senior, of Philadelphia, many years ago, and has since become a standard remedy. *Hope's camphor mixture.* ℞—Aquæ camphoræ, f ʒ iv. Acidi nitrosi, m xxx. Tincturæ opii, m xx. vel xl. Misce. Dose, a tablespoonful every two hours in diarrhœa and dysentery. It is to be particularly observed that the good effects of this famous remedy depend on the employment of *nitrous acid*, not *nitric acid*, in conjunction with opium. Mr. Hope, by way of trial, substituted the latter acid for the former in the mixture, but found that the altered preparation was not in any way beneficial to his patients.—*Chemist and Druggist.*

STEADINE A SUBSTITUTE FOR HOG'S LARD.

Steadine is but a contraction of the word stearaidine, resembling fat, and is prepared as follows :—

Lard	3½ ounces.
Water	3½ “
Soda deprived of its carbonic acid by lime	15 grains.

The soda is weighed and used dry. It should be melted in about four drachms of water; the lard is then gradually added alternately with the remaining water. The operation of this mixture is both swift and simple; in ten minutes four pounds of steady may be prepared. This new adipose substance presents the appearance of a whitish, fatty compound, inodorous, insipid, and intermediate between cerate and lard. Its consistency, soft at first, soon acquires more firmness; it is not, like axunge, liable to liquefy during warm and to harden in cold weather. It indefinitely preserves its color and density, unless left constantly exposed to the atmosphere—a practice injurious to other pomades and fatty matters, which turn rancid from prolonged contact with the oxygen of the air.

The slight addition of the alkaline ingredient is undiscoverable from taste or from examination with test-paper, being entirely saturated by the fatty excipient. It suffices, however, to create a new fatty substance of a mixed nature, a medium between fats and bodies soluble in water. A new and solid species of glycerin is thus produced, which is to a certain extent soluble in oils and water. This double property renders it capable of being in the preparation and use of pomades as serviceable as glycerin itself for oils and liniments. Ointments containing metallic bases, oxides, chlorides, sulphurets, iodides, salts, etc. remain unaltered; the iodide of potassium pomade preserves its whiteness, and does not lose its iodine. For the purpose of manipulation, it will be found most convenient. Insoluble powders mix with it promptly and with great accuracy. It is more readily combined with vegetable powders than lard, a bad solvent of their active principles. Soluble salts, extracts which require previous dilution in water, can be immediately and completely associated with steadine, whereas, when hog's lard is used, the repulsion between the ingredients is so great that a very protracted and persevering manipulation is necessary before even a badly-assorted union can be effected.—(*Journal of Practical Medicine and Surgery, and Pharmaceutical Journal, London, December, 1860.*)

MEDICAL JURISPRUDENCE.

DETECTION OF STRYCHNIA IN THE SUBSTANCE OF A STOMACH.

BY CHARLES T. JACKSON, M.D.

Those who have read the celebrated Palmer trial, are aware that chemists have been doubtful whether strychnia could be satisfactorily detected in the tissues. Recently I have had an opportunity of fully testing this question, and will now give that portion of the case to the public, leaving the other circumstances to be developed in a trial now pending. After separating small portions of strychnia from the contents of the stomach, by the most approved processes described in the books, I took the stomach, dissected of all the fat that could be separated, and then inverted it and washed it with hot alcohol, and from the alcoholic solution I separated a little strychnia.

I next took the stomach itself, cut it into small fragments and digested it in cream of quicklime until it was thoroughly disorganized, a boiling heat being employed. Then the whole was dried off, until it became too thick to run, and it was next placed on filtering paper and made thoroughly dry in a current of warm air, after which the whole was reduced to fine powder, and was boiled in 80 per cent. alcohol for some time and then filtered, and the matter on the filter was washed with weaker alcohol so long as anything could be dissolved out containing strychnia. The whole clear solution was then evaporated, by a steam bath, to near dryness, and a dilute solution of pure sulphuric acid was added, until slight acidity was discovered by blue litmus test paper.*

I then adopted Dr. Hayes's method of clearing the solution of oil or fatty matters, namely, by adding purified wax and boiling so as to cause the molten wax to absorb and solidify the oils. The vessel was then placed on snow and allowed to cool to the freezing temperature. By this means I obtained a solid crust, which contained all the fat now combined with the wax, and the solution below it being drawn off and filtered through Swedish paper was clear and nearly colorless. This was treated with pure bi-carbonate of soda, in excess beyond saturation, and again filtered through Swedish paper. Then pure ether was mingled with it, in the proportion of five or six times its bulk, and the whole placed in a glass tube having a cork with one long tube reaching through the whole length of the glass, and another just passing through the cork, this being my separating apparatus. In this the two liquids were thoroughly mixed by shaking, and the glass was inverted, the tubes being both closed with the thumb. After the ethereal solution had separated and risen to the surface, the heavier liquid below was drawn off by itself, and the ethereal solution was then allowed to flow out into a series of watch-glasses, from which the ether evaporated spontaneously, and beautiful feathery crystals of strychnia were obtained. These were then washed out by weak alcohol into a single watch-glass, and on evaporation of the alcohol and water under the exhausted air-pump bell over concentrated sulphuric acid, well-defined prismatic crystals of strychnia were obtained, and were examined by the microscope and compared with known strychnia crystals. The bitter taste of these crystals was observed to be identical with that of known strychnia. They also responded perfectly to all the color tests as strychnia, and produced the characteristic salts with bi-chloride of platinum, &c.

In applying the color tests, concentrated sulphuric acid (oil of vitriol) must be applied to the strychnia and observed, whether or no it produces any change of color. In pure strychnia it will not. Then add a small crystal of bi-chromate of potassa, and if the matter is strychnia, streaks of blue changing into violet, purple and red will appear, and these streaks may be renewed for hours, even if there is but a visible particle of

* This method, I understand, was first employed for the detection of strychnia in animal tissues by Dr. Green of Cambridge. (See Proceedings of Boston Soc. Nat. Hist.)

pure strychnia present. Ferri-cyanide of potassium (red prussiate of potash), per-oxide of lead and per-oxide of manganese will give the same colors when they are added to the strychnia in sulphuric acid. If per-oxide of lead is employed, a fraction of a drop of nitric acid should be added. All these tests showed the crystals obtained from this stomach to be strychnia, as did the other characteristic chemical compounds of it. There still remained a very important experiment to make, to place beyond question the nature of this poison; and that was by the actual trial of it on a living animal. Having but little of it to operate with, I selected a Canary bird for the experiment, and after dissolving one twentieth of a grain of the crystals in alcohol and water and evaporating off the alcohol, leaving an aqueous solution of strychnia, Dr. Ainsworth having made an opening in the skin of the bird, which was held by Mr. Balch, by means of a pipette I threw a drop of this solution under the skin of the bird. In a few moments it had convulsions, and died with the characteristic symptoms of strychnia-poisoning in less than one minute, the legs being thrown stiffly back in a line with the body, and the neck bent back by the spasm.

The whole amount of strychnia which I separated from the substance of the stomach in this case was less than one tenth of a grain, but it was well defined and clear from all admixtures. I found it much less difficult to extract the strychnia from the substance of the stomach than from the gummy mass of half-digested matter which it had contained, and I recommend this method to my brother chemists as reliable and not difficult to execute.—*Boston Med. and Surg. Journal.*

MEDICINE.

ON THE DETECTION OF SUGAR IN URINE.

By MR. ATTFIELD, (*London Pharmaceutical Journal*, January 1, 1861.)

On the same. By DR. BENGE JONES. (*London Pharmaceutical Journal*, February 1, 1861.)

New Test for Diabetes. By DR. E. C. BIDWELL. (*Boston Medical and Surgical Journal*, Nov. 22, 1860, and *New Orleans Med. News and Hosp. Gazette*, Jan., 1861.)

1. The *London Pharmaceutical Journal* for January notices a communication from Mr. Attfield, which has also appeared in the *Chemical News*, having reference to Boettger's test for sugar in urine. It will be remembered that his test consists in adding a few grains of ordinary trisnitrate of bismuth to a portion of the urine, then pouring in an equal volume of a strong solution of carbonate of soda, and heating the mixture. The presence of sugar is indicated by the formation of a deep brown or black color, due to a reduction of the oxide of bismuth. Boettger originally devised this process to obviate some of the sources of error which frequently attend the application of Trommer's test. It is well known that the presence of certain constituents of the urine, and especially of uric acid in abnormal quantity, may cause a reduction of the oxide of copper in the application of Trommer's test, without sugar being really present. Oxide of bismuth was found to be certainly not affected by uric acid, and to that extent therefore might be considered as preferable to oxide of copper. Mr. Attfield has been engaged in some experiments on the applicability of Boettger's test. He states that it is far more delicate than Trommer's test. He finds that by it abundant indications of the presence of sugar can be obtained in an aqueous solution so dilute as to give no reaction with Trommer's test. But he also finds that the presence of albumen in the urine will cause a reduction of the oxide of bismuth, and introduces therefore a source of error. He states that the action of albumen is far less energetic and complete than that of sugar, but that nevertheless blackening does occur, and to a greater extent than could be accounted for by the influence of the sulphur present in the albumen. Moreover, some of the constituents

of healthy urine appear to interfere to a certain extent, for the author states that "nearly all specimens of urine color more or less the basic nitrate of bismuth." Mr. Attfield therefore objects to this test as a means of detecting sugar in urine, because of its extreme delicacy, and because other substances, and especially albumen, may produce the same reaction. For the mere detection of sugar in alkaline solutions generally, it is however exceedingly sensitive. The author concludes his communication by recommending Trommer's test, which he considers "for medical purposes fulfills all desirable conditions."

There can be no doubt, however, that Trommer's test is subject to certain objections. Mr. Attfield, in his paper, does not mention the test commonly known as Moore's, which consists in adding to the urine an equal volume of liquor potassæ, and boiling for some minutes, when, if sugar is present, a peculiar and very characteristic brown coloration is produced. This test is subject to many less objections than either of the above, and is now very commonly employed in the examination of urine, and for the detection of grape sugar generally. This test possesses, in addition to its being very trustworthy, one great advantage, namely, that it can be almost as readily used for determining the amount of sugar as for recognizing its presence. This depends upon the fact that the depth of color produced bears a strict relation to the amount of sugar present. If, therefore, a standard solution of grape sugar is prepared and a given quantity colored to the fullest extent by boiling with potash, upon taking an equal quantity of the urine and treating it in a similar manner, by comparing the colors, and diluting until the tint is equal, the proportion of sugar present in the urine is readily arrived at.

2. At a recent meeting of the Chemical Society, a paper was read by Dr. Bence Jones, on the presence of sugar in the urine. The author described a number of experiments which he had undertaken with a view, first, of ascertaining the most delicate process for the detection of minute traces of sugar when added to urine; and, secondly, for obtaining further proof of the correctness of Brücke's statement, that sugar is always present, and is a normal constituent of healthy urine. His principal conclusions were as follows: Lehmann's process for detecting sugar in the urine by extracting the evaporated residue with absolute alcohol, and precipitating the sugar therefrom in the form of potash sugar, by means of alcoholic potash, cannot be employed when small quantities are present in large quantities of urine. The process of fermentation is stopped by the residue of the urine, by much urea, and still more decidedly by oxilate of urea. Half a grain of sugar in water can be detected by the alcohol produced, and may be estimated by the carbonic acid produced, but much larger quantities may be entirely overlooked in concentrated urine. In decolorizing urine for examination in the polarizing saccharometer, some sugar is always lost. Animal charcoal removes sugar in proportion to the amount of charcoal used. This sugar may be recovered by washing with boiling water. Two-thirds of the sugar in urine may be lost by Robiquet's method of decolorizing with basic acetate of lead and ammonia. Pettenkofer's test for sugar, by means of cholic or glycocholic acid and sulphuric acid, is the most delicate known. Two-thirds of a milligramme may be detected in a little distilled water, and the presence of a small amount of urinary coloring matter does not affect the reaction. Trommer's test with sulphate of copper and potash is capable of discovering one-twentieth of a per cent. of sugar, in urine, but when very small quantities of sugar are in solution with muriate of ammonia or urea, the reduction of the oxide is not perceived. Brücke's alcohol process was not found to be satisfactory, but his lead process furnished excellent results. The urine is precipitated first with neutral acetate of lead, then with basic acetate of lead, and lastly with ammonia. The ammoniacal precipitate contains the sugar, which is extracted by treating the precipitate with oxalic acid, or preferably by sulphuretted hydrogen. By Brücke's process one-seventh of a grain of sugar added to 200 cubic centimetres of urine could be detected, and two-thirds of all the sugar added could be recovered. Moreover the sugar is obtained free from salts, so that it can be fermented, and free from color, so that it may be examined by the saccharome-

ter. The presence of sugar could be readily ascertained by this process in 1000 cubic centimetres of urine. The sugar separated by Brücke's process from 1000 cubic centimetres of the urine of a healthy man was estimated by the reduction test to vary from 1.4 to 2.2 grains, and in that of another man to vary from 2.3 to 3.0 grains. The sugar separated from 5000 cubic centimetres of the urine of one healthy man gave from 7 to 8 degrees of rotation in the saccharometer, and that of another healthy man from 10 to 11 degrees. The sugar extracted from 14,000 cubic centimetres of healthy urine yielded by fermentation 1.8 grains of carbonic acid, together with a recognizable quantity of alcohol. These and other experiments fully confirmed Brücke's statement as to the habitual presence of sugar in healthy urine. Hence diabetes must be regarded as an exaggeration of a healthy state, and not as a distinct and peculiar condition of the system.

3. Dr. E. C. Bidwell communicates to the *Boston Medical and Surgical Journal* (Nov. 22, 1860,) a process which he claims as a new test for glucosuria. His proposed test, he says, if not pre-eminently scientific, is nevertheless facile and reliable. He converts the saccharine element of diabetic urine into *caramel*, by heat. Upon a clean slip of tinned iron are placed one or two drops of the suspected material, which is then held over a spirit-lamp; the fluid will speedily evaporate, leaving scarcely a trace upon the surface of the metal. The application of the heat is continued, and in a few moments after the completion of the desiccation, a spot, about an inch in diameter, over which the drop has spread with the first ebullition, will gradually assume a rich reddish-brown color, with a brilliant lustre, having the appearance of Japan lacquer. The application of a stronger heat produces a darker color, but the lustre continues until the intensity of the heat decomposes the substance. Dr. Bidwell claims great success in his experiments with this new method, which is far superior to those tests founded on either fermentation, or on the reduction of metallic oxides, which latter, besides being complicated and inconvenient for clinical use, are liable to various fallacies.

SURGERY.

ON EXCISION OF THE HEAD OF THE FEMUR.

By RICHARD BARWELL, F.R.C.S. (A Treatise on the Diseases of the Joints, p. 437. London: Churchill, 1861.)

The operation of removal of the head of the thigh-bone has attracted much attention and has been gaining in credit during the past fifteen years. In his admirable "Treatise on the Diseases of the Joints," Mr. Barwell gives, in the following terms, the best statistical accounts of its effects that we have yet seen:—

"I can thus gather 104 cases. Twelve times the operation was performed for injury (eleven times gunshot injury, once for fracture of the thigh and descending ramus pubis.) Of these twelve but one recovered. Of the ninety-two cases in which joint disease was the cause of the operation, we find that fifty-six recovered, thirty-two are dead, four remain uncertain. Therefore, in eighty-eight cases, fifty-six recovered. Thus, the recoveries stand at the high ratio of 63.63 per cent. It must be, nevertheless, acknowledged that several of the patients, after having lived and even walked about for some months, or even more, ultimately succumbed to internal disease, generally to tuberculosis."

"Concerning the power or use of the limb afterward, it is necessary to speak with the greatest caution. Very many of the cases, after having been reported as cured with perfect use of the limb, have been lost sight of just when the critical time for testing the use of the member has arrived. Many of these are, I believe, dead; others

have not so much use in the limb as the first result of the operation might lead us to suspect. We may tabulate the only attainable numbers thus, but the quantity of "useful limbs, is very much too high; of the fifty-six recoveries I get no reliable information in fourteen; in six the limb is useless, in thirty-six the limb is reported as useful."
—*N. A. Med. Chir. Rev.*

CASE OF SUCCESSFUL TREATMENT OF RANULA BY ELECTRICITY.

By Dr. SCARENZIO.

A woman, aged sixty-five, applied at the Mantua Hospital on account of a ranula situated on the right side of the frenum, and which having during three months attained the size of a walnut, caused an obstruction both to speech and mastication. There was some swelling of the submaxillary gland of that side, but this had diminished with the enlargement of the tumour of the mouth. The affection being uncomplicated, it was determined to resort to electricity in its treatment. Two pairs of Bunsen's pile were employed, and the steel needle attached to the negative pole was passed about four centimetres into the fluctuating tumour, the other extremity of the pole being brought into contact with the outer surface of the lower jaw. The current was allowed to act for almost a quarter of an hour, the patient only complaining of a slight smarting. At the seat of puncture an eschar, a centimeter in size, was formed, and on the removal of the needle a portion of the fluid was discharged, the whole afterwards flowing out during the movements of the mouth. Next day strong local reaction was set up, accompanied by considerable fever, which yielded to bleeding and purgatives. In a few days the eschar came away, and the granulating wound healed, without any further collection of fluid having taken place in the cyst, which contracted upon itself. The function of the orifice of the Whartonian duct was recovered, saliva being seen issuing therefrom. The woman was seen on other account more than fifteen months after the operation, and the cure was found to have held perfectly good.

IN-GROWING TOE-NAIL.

In the *Lancet and Observer*, Dr. Weber reports a new method of cure, which we subjoin: "I make use of the following composition:—℞ Corticis Guerci, ℥ ss.; gallarum turcicarum, ʒj. Conscisse conque in æ. commun. ℥ x., ad remanentiam. ℥ vj.; colaturæ addetur argenti nitrici fusi. ℥j.—ʒj.; acet. saturn. ℥ij. M. D. S. Embrocatio. With this mixture the sick toe is to be moistened all over, and as much as possible of the liquid dropped into the fissure between the nail and flesh, and then the toe to be bandaged with a strip of linen about one and a half inch wide and eight inches long. After the end coming next to the nail has been saturated thoroughly with the liquid, the balance of the strip is wrapped around the toe. The moistening of the inner end of the strip has to be repeated through the day, four, or six, or ten times, and to be continued until a cure is effected. Generally the application causes no particular pain; if though there should be much sensitiveness, from six to ten grains of morphine might be added. Soon after the application of this remedy the swelling of the toe subsides, the excrescences, the proud flesh shrinks, gets black, as also the whole toe; the nail gets brown, soft, brittle, loses its stiffness, and ceases to press and dig into the flesh; the skin peels off, and out of the matrix a new well-formed nail will be developed."—*Dublin Medical Press.*

RADICAL CURE OF VARICOCELE.

A patient, labouring under a very aggravated form of varicocele, was brought into the theatre of King's College Hospital, London, on the 9th of February last. It appeared that he had suffered for a considerable time from pain in the part and in

the loins. The testicle upon the affected side was evidently wasted; but the most remarkable feature in the case was the great distance that it hung below the other on the opposite side. The testicle on this (the left) side was so pendulous and loose, that when the patient lay on the operating table it hung over towards the outside of his left thigh. Mr. Henry Lee proceeded to operate in a way somewhat different from that in which the operation has been usually conducted. Having introduced a thin needle between the vas deferens and the enlarged veins, a figure-of 8 ligature was passed over the ends of the needle, and the bunch of veins was thus compressed. The same proceeding was repeated at the lower part of the scrotum. In each case a piece of thin leather was placed under the thread to prevent any pain that the pressure on the skin might occasion. A considerable extent of the skin of the scrotum and of the enlarged veins beneath it were thus included between the two needles, and the circulation in these parts in a great measure obstructed. A thin knife was then introduced about mid-way between the two needles, and between the vas deferens and the enlarged veins. The knife was directed upwards, so as to divide the integument near the upper needle. A second incision was made to pass downward, so as to divide the skin near the lower needle. A wedged-shaped portion of tissue—skin, enlarged veins, and all—was thus removed, and a very considerable interval was left. Some extremities of divided veins, and some cellular tissue, were removed with scissors, and a clean surface left. It was remarked, that although such an extensive surface was exposed in so vascular a part, yet no hemorrhage followed; this, in fact, was completely controlled by the acupressure of the needles. The needles were now drawn together and maintained in position, and thus approximated the edges of the wound, which was then dressed by a piece of dry lint, and the patient sent to bed.

Mr. Henry Lee remarked that cases of pendulous testicle, as they present themselves in practice, may be divided into three classes: 1, those in which the skin and subjacent tissues are relaxed; 2, those in which the veins alone are enlarged; and 3, those in which both skin and veins are relaxed and enlarged. The first may be remedied by the removal of a portion of the integuments only; the process of cicatrization braces up the surrounding parts, and the evil is thus remedied. In the second class of cases the obliteration of the veins is requisite, and this may be done by subcutaneous section, without any wound in the skin beyond that which is required to admit the thinnest knife. But in the third class, where the skin is much relaxed, the simple obliteration of the veins will not remedy the pendulous condition of the testes. In such instances Mr. Lee recommended an operation similar to that which he had now performed—namely, the removal of a portion of the skin, together with the subjacent enlarged veins. The acupressure of the needles he considered sufficient to insure the patient against hemorrhage on the one hand, and any absorption through the veins on the other. The operation, therefore, although apparently a formidable one, was, he believed, free from danger.

The patient in the above case, we understand, left the hospital at the end of three weeks, and continued to present himself occasionally as an out-patient. The wound cicatrized very firmly, the enlarged veins were completely closed, and the testicle retained very much in its natural position; the testis also, which had been wasted before the operation, regained its normal size.—*Lancet*.

LITHOTOMY IN CHILDREN—CLINICAL REMARKS.

By MR. FERGUSSON.

On May 4th, Mr. F. performed, at King's College Hospital, the lateral operation of lithotomy on a child three years of age. The child had had symptoms of stone for eighteen months. Mr. Fergusson stated that he had not succeeded in introducing a staff as large as would usually pass readily in children at that age. He said that he

preferred to introduce as large a staff as possible, as it did not matter about its being readily moveable, as in the case of the sound. The introduction of a small staff required more care and skill, in order to know where the point of the instrument passed. The point of a small staff might pass out of the urethra, and this, too, although its general direction appeared to be correct. This, he said, was not a mere theoretical objection, as he had known such an accident to happen in the hands of a very distinguished operator. Mr. Fergusson added, that if in the case in which he had just operated, he had not touched the stone by the staff, he would not have proceeded. In reference to lithotomy in children, he said, that it was a rule with him to take more time and care than with adults, as he felt certain that there was much more risk of getting wrong with lithotomy in children than in adults. In children the tissues were less firm and the resistance consequently not so great. The incision also was required to be on a smaller scale. He always endeavoured to make as small an opening into the membranous portion of the urethra as possible, and only just notch the prostate or even leave it altogether untouched. The next step, the introduction of the finger into the urethra was, however, the one in which the greatest mischief might be produced by want of care—mischief often irreparable. The membranous portion of the urethra and the neighbouring tissues were, in children, soft and easily torn, and the urethra might give way above as well as below the staff, and thus (separated all round) be pushed before the finger towards the bladder. The finger would then move about in a pouch thus formed, and the completion of the operation would be almost impossible. He had known, however, a surgeon retrieve himself after this error. On one occasion, in cutting a child for stone, he felt convinced that this accident had occurred. He at length succeeded, but after a long time, in getting his finger into the urethra. He then speedily extracted the stone. It was in this case that he first became aware of the danger to which he referred. He had not previously heard of it, and, as far as he knew, it was not mentioned in books. Mr. Fergusson then alluded to the other methods of performing lithotomy. He had cut forty children for stone by the lateral operation, and had lost only one. He felt convinced of the superiority of the operation.—*Med. Times and Gazette.*

REMOVAL OF THE CARPAL AND METACARPAL BONES.

In the *Boston Medical and Surgical Journal* for June 27th, Prof. E. S. Cooper, of San Francisco, reports a case of successful removal of all the carpal, and parts of all the metacarpal bones, accompanied with remarks, from which we are disposed to make a quotation or two. He says, "Excepting among practitioners of San Francisco, it is rare that surgeons attempt the cure of a patient laboring under disease of the tarsal, carpal, metatarsal, or metacarpal bones, without either removing all the bones that are diseased or amputating the limb."

We copy the remarks entire. "The method of keeping the wound open, as pursued in this case, is in accordance with my universal custom in the after treatment of surgical wounds made in operating upon the bones. Though in this case there was no exfoliation of bone during the convalescence, this is a frequent occurrence, and for this reason no such wounds should be made to heal otherwise than by granulations; because, if we promote healing by first intention on the outside, and exfoliation should occur, it will be a source of great local, if not constitutional irritation, provided the exfoliated bone be confined within the limb. By keeping the wound open, however, and causing it to heal entirely by granulation; the detached bone, if any exists, will find an easy egress.

"The second consideration is that of keeping lint in the wound and a roller tightly around the limb, the granulating surface as well as the adjacent parts, thus becoming so consolidated as to prevent the accumulation of purulent matter in any of the neighboring parts, the condition most to be feared after these operations."

We should have observed that, in the case reported, the carpal bones were removed

with the chisel, and portions of the metacarpal were removed with a heavy pair of bone forceps.

Prof. Cooper's method of treating wounds of the joints differs somewhat from that usually directed in the books. He fears not the effects of air even in the knee-joints, and in severe wounds, or after operations on that joint, he dresses open, with lint and bandage, and thus heals by granulation. A few weeks since we were called to a case of severe wound of the knee-joint. The wound was made with an axe, which just touched the patella on the inner side, and entered the joint freely, wounding both the *femur* and *tibia*. The wound was oblique—passing from within outward and downward. No physician was called at the time, it was carelessly dressed, and the patient was for a time about on crutches. We saw it ten days after the accident—the joint was much swollen, and the opposite surfaces of the cut were gaping, and at least two and a half inches asunder. The discharge of synovial fluid, or the secretions of the joint cavity was quite profuse. We dressed with adhesive strip and roller, and the wound healed without untoward symptoms, by a slow process of granulation and cicatrization. The constitution suffered far less than we expected.—*Med. and Surg. Rep.*

MIDWIFERY.

RUPTURE OF UTERUS; RECOVERY.

By G. T. ELLIOT, JR., M.D., New York.

On the 25th of November, 1860, I was called by Dr. Slevin to see Mrs. M. in her second labor. The first had been severe, but terminated naturally. She had suffered for eighteen hours, when she complained of a sharp, agonizing pain in the left iliac region, and the contractions ceased. Before this the brow, tips of the fingers and the funis had been recognised as presenting, but they have now receded. She was weak, and was vomiting a clear green fluid; pulse one hundred and thirty, and feeble. Within the cervix, to the left, was a longitudinal fissure, which did not involve the entire thickness of the cervix. It was decided to turn; the patient took some stimulus, and the operation was completed, the delivery of the head requiring its being broken up, as locking occurred. After the delivery, the fingers could be passed through the rent so as to feel a loop of intestine and the peritoneal coat of the abdominal wall. Slight hemorrhage took place and contraction ensued, which was aided by ergot and ice in the vagina. The ergot was vomited almost immediately. The patient was placed in bed, and care taken to procure reaction. The vomiting was persistent for two days, when she began to improve, and by the latter part of December was out walking. The treatment was solely sedative and stimulant.—(*Am. Med. Times*, February 23, 1861.)

A CASE OF SPONTANEOUS EXPULSION OF FULL-GROWN FŒTUS.

By DR. NAGELE.

Dr Nagele relates a case of spontaneous expulsion of a full-grown fœtus. In December, 1856, a woman who had been in labour twenty-eight hours was brought to hospital; the liquor amnii had long escaped; for forty-eight hours no fœtal movements had been felt. The pelvis was of full size; the child presented in the second shoulder-position; the pains were good. Chloroform was administered to facilitate turning; but all efforts persisted in during two hours and a half—failed in reaching the feet, so strong were the spasmodic contractions of the uterus excited by such endeavour. It was determined to wait; presently, under strong pains, first the right shoulder revolved under the pubes, then the right side, then the breech, and lastly the head. The mother recovered favourably. The child showed signs of putrefaction.—*Brit. For. Med. Chirg. Rev.*

THE
British American Journal.

MONTREAL, AUGUST, 1861.

SUSTENTATION OF CHARLATANISM IN HIGH PLACES.

We have little doubt that quackery or charlatanism in its various grades would speedily sink into insignificance, if it were not for the countenance which it occasionally receives from well disposed but misguided men. Those, who are out of the profession, are, *ipso facto*, susceptible of easy deception. Knowing little or nothing of medicine themselves, whatever virtues may be attributed to any especial medicine, they are ready nay willing to take for granted; and if they themselves are afflicted, a belief in the efficacy of the remedy proposed has itself often worked a cure. That faith, imagination, and credulity have worked wonders in favor of certain especial medicines, and are even now working them, any reflecting mind can determine for himself, by reading the hosts of quack advertisements, and by casting a scrutinising glance around him. A physician can scarcely enter a house without encountering some quack remedy or nostrum, the composition of which no one knows but the patentee, all which is a proof that while these infirmities of the human mind exist, men are not wanting to take advantage of them; but that they should be seconded in their attempts in imposture by regularly qualified medical practitioners, some of them having enjoyed the highest honours of the profession, surpasses belief.

We have been driven into these thoughts; to which we have given expression with no inconsiderable amount of pain, by having received a copy of a sheet called "McLean's Family Herald," published by George Mc'Lean, No. 83 Bay Street, 3 doors below King Street west, Toronto, the object of which is to puff off McLean's "Heather Balm," "Heather Bloom," and "Vegetable Hair Die," (we wonder he did not call it Heather Hair Die) and Heather Bloom Hair Restorator."

For the purpose of exhibiting the extent to which Mr. McLean's sureties have pledged themselves, (for be it remembered that Dr. Hallowell of Toronto, late Professor of Materia Medica in Trinity College, in that city, confesses that he has made an analysis of the "Heather Bloom," and has discovered that it contained no mineral remedy, although he abstains from specifying upon what vegetable

medicinal agents its remedial efficacy depends), we have only to quote McLean's laudation of its virtues, as contained in the printed sheet, to exhibit Dr. Hallowell's complicity, as well as that of Drs. Small, Nicol, and McIlmurray, is as great a specimen of charlatanism as we have seen.

"In order to be as brief as possible, I respectfully solicit the reader's attention to the following facts:—All the diseases that afflict the human family may be classed under two different heads—Acute and Chronic. Under the first head we meet with either Fevers of a specific nature, or Acute Inflammations. All other diseases may be considered Chronic, originating from an impoverished state of the blood, whatever may be the name of the disease, character, or seat. Now this fact explains to any common-sense reader how it is that my Balm has such a wonderful effect upon so many different diseases. As they have one great origin, so they have one grand cure; and as the diseases differ in character and seat, so there is a difference in applying and taking the Balm, as given in the Directions under the different headings.

"The Balm has proved itself to be the surest, safest, and quickest remedy from all diseases arising from poverty, impurity, or want of proper circulation of the blood, which is the great or primary cause of many of the diseases and evils that afflict humanity. This Balm being a perfect poison extractor, stimulating and strengthening the secretive functions and thereby securing a regular flow of clean, healthy blood throughout the whole system, relieves the sufferer from many diseases. The head, or brain, being the centre of all our senses, has a great deal to do with our happiness and prosperity in this life, and our prospects in that which is to come; for so sure as the heart is the seat of life, just so sure is the brain the seat of thought and main-spring of all our actions, by which we are and shall be judged, both in time and eternity; hence the great necessity of using every means within our power for improving the condition of the brain, which is

"The great helm that steers our course, through Time's rough tide;
Through rain, through shine, through calm or storm, to Jordan's farthest side."

For this purpose my Balm has proved itself eminently useful, by removing Head-ache, Dizziness, Drowsiness, and such like, and thereby preventing Brain Fever, Apoplexy, &c.; also giving immediate relief in cases of Delirium and Sunstroke, where there is a shadow of room for human agency; when all other means have failed, this Balm has given, in innumerable cases, immediate relief. Also, in cases where the organs of sight or hearing have become disordered or injured—if not hopelessly destroyed—the Balm by its cleansing, regulating, and restorative properties, has often restored these organs to perfect usefulness, after years of inconvenience and distress because of their loss, have elapsed. In the case of the obstruction of sight from inflammation, chronic or acute, specks or films on the eye; Cataract, in the three different forms, viz: Lenticular, Capsular, and Complicated, the meaning of which is—laying aside technicalities—a thickening of the fluid that fills a certain portion or portions of the eye, by which the light is obstructed in its passage to the optic nerve; this thickened matter is reduced, by applying the Balm to the head and eye, to its proper state; hence the sight as good as ever. In Gutta Serena, or Amaurosis, the principal causes of which seem to be a diseased condition of the digestive organs, general or local debility of the nerves, an extraordinary fulness of the blood vessels of the brain, or of those of the optic nerves, &c.; in this the Balm is equally successful, by taking inwardly and applying to the head and eyes.

"In hardness of hearing, generally termed deafness, which usually arises from organic defect or impediment, local debility or relaxation; in other cases from indurated wax, insects or other extraneous substances; also, frequently from ulcerations, or inflammation of the Tympanum or of the Drum of the Ear; still there are some other

causes, all of which come within the probability of relief to a great extent, and the majority a complete cure. (Why in the interests of humanity are they not specified? —*Ed. B. A. J.*)

“ In Inflammation of the larynx, upper part of the wind-pipe, or organ of voice, the Balm often gives immediate relief when every other means have failed. The same in cases of inflammation of the Liver, Lungs, Kidneys, and Stomach. Also Spinal Disease, Piles—internal and external—Ague, Cholera and Bowel Complaint, Gout, Rheumatism, &c.”

We thus perceive that there is scarcely a disease of any important organ, to which this remedy cannot afford a sovereign relief, whether of a sthenic or asthenic character. We now come to the testimony of Dr. Hallowell, late Professor of Materia Medica, Toronto,—which runs to the following effect.

Sir.—Although a prejudice very generally exists among the members of the medical profession, against all kinds of *Nostrums*, the composition of which is not known; yet there are instances in which it would not only evince a narrow-minded jealousy, but also a sectarian spirit (so to speak) to withhold an honest, straightforward testimony to the work and efficacy of such medicines, where their virtue has been tested by experiments.

In answer to your request, I have no hesitation in pronouncing your “Balm” a most valuable remedy in many cases, where ordinary means have failed; and knowing from a qualitative analysis, that it is composed of vegetable products, possessing healing and restorative virtues, I have much pleasure in adding my humble testimony to its usefulness in those cases where it has been tried. I am, Sir, yours faithfully,

WILLIAM HALLOWELL, M. D.,

Late Professor of Materia Medica, Trinity College, Toronto.

Now it must be admitted that this letter approving of Mr. McLean’s endeavour to relieve suffering humanity in this peculiar way, uttering no objection to the opinions advanced by him as quoted, must be held to sustain those opinions as regards diseases and their origin; and without entering too deeply into the subject, in fact no more so than we have time or inclination for, we should like to ask Dr. Hallowell, how he is to improve a case of leucothemia, a disease originating in “*an impoverished condition of the blood,*” without a recourse to some of the preparations of iron or Manganese; and yet he tells us that the “Heather Balm” contains no *mineral remedy*, therefore no preparation of iron.

It is certainly much to be regretted that Dr. Hallowell, late Professor of Materia Medica in Trinity College, regards it “as the evidence of a narrow-minded jealousy and a sectarian spirit to withhold testimony to the worth and efficacy of such medicines when their virtues have been tested by experiments.” We feel surprised that Dr. Hallowell should have given expression to such sentiments, They are in direct variance with the philanthropy of the profession, and with their general conduct, which make no secret of any remedial agent which could in the slightest degree benefit suffering humanity. “Freely as they have received freely have they given,” is a statement and a practice which the true-minded of the profession have always followed, and the opposite of which they have as freely condemned.

Leaving now, Dr. Hallowell, ex-Professor of Materia Medica in Trinity College, our eye lights upon that of W. B. Nicol, M.D., formerly Professor of the same branch in the University of King’s College, Toronto, who testifies to the remarkable efficacy of McLean’s “heather balm,” as an excellent application for eruptions on the face and head. “I have known it (says Dr. Nichol) to cure cases

which had resisted other modes of treatment." This certificate, so sweeping in its character, renders the "heather balm" again the most curative agent in all face eruptions. Every body must therefore send to Toronto, to 83 Bay Street to be relieved of his face eruptions.

Again Dr. Small, a respectable practitioner of Toronto, but who, we believe, has never enjoyed University honors in the way of a Professorship, testifies in another certificate to the value of the "Heather balm" in cases of chilblains; and he states that he has found it useful in "restoring the hair," although he is not explicit enough in stating whether it was that of his own head, or that of some one else.

But all that we have previously remarked upon is to put the blush by the following certificate, which narrates the certainly very extraordinary cure of *Deaf-mutism* by the use of the "heather balm!" and which, as one of the most unblushing abetments of charlatanism that we have read of we cannot avoid giving "*in ipsissimis verbis.*"

EXTRAORDINARY CURE OF DEAFNESS.

Toronto, May 16, 1861.

Having witnessed the examination of John Fellis, we have much pleasure in adding our testimony to the very beneficial effects of Mr. George McLean's persevering and energetic treatment in his case, being that of a *deaf mute*, who is stated by his parents to have been deaf and dumb from birth. The subject is now 44 years of age, and after three weeks of untiring zeal and attention at the hands of Mr. McLean, he is now enabled not only to *hear*, but to *articulate distinctly* the letters of the alphabet, and pronounce some monosyllables. Such is the progress he has already made, that we have no doubt a continuance of the treatment will produce still further beneficial results. The treatment of Mr. McL. is very simple, consisting of syringing, and the internal and external application of what he terms his "Heather balm," composed of vegetable ingredients, which we consider perfectly safe, and in many instances eminently successful.

JAMES McILMURRAY, *M.R.C.S. England.*

WILLIAM HALLOWELL, *M.D, M.R.C.S., Edinburgh.*

After the foregoing, nothing further requires to be said. Of Mr. McIlmurray, we know nothing; but of Dr. Hallowell we must remark, that he has no more right to subscribe himself M.R.C.S.E. than we have, whose proper designation will be found on the title-page of this number.

EDITORIAL SUMMARY.

Deaths among the Profession of Paris.—The profession have to deplore the loss of three of its members in Paris,—Messrs. S. P. De Mengil, Deloir, and Felix Hatier. The latter was a distinguished accoucheur, a recent communication of whose to the Academy, gave rise to the debate which has just closed on the subject of post-mortem hysterotomy.

Pitting in Small Pox.—Dr. Bell, of the Glasgow Infirmary, advises, to prevent pitting in small pox, pledges of cotton wool saturated with linimentum calcis, applied as in cases of burns or scalds.

A strong-minded Lady.—A lady of "admirable purpose" and wealthy, has been attending the lectures of *Materia Medica* and *Chemistry* in the medical school of Middlesex Hospital. Not content with this privilege she has applied for admission to the lectures on *Anatomy*, *Physiology*, and other winter lectures and demonstrations. The students have protested against her admission to these lectures, in consequence of the manifest

impropriety of her attending demonstrations on many subjects in company with them. She is perfectly in earnest, however, and clearly insensible to the unpleasant feelings which her presence must arouse; for undaunted by the failure at the Middlesex Hospital, and by the rejection of her offer to endow the school with £2000 as a foundation for a female scholarship, she has made application at other hospitals. Her present appeal is to that at Westminster.

Death of Mr. Rynd.—This gentleman, a distinguished Dublin Surgeon, died suddenly while driving in his carriage, of fatty degeneration of the heart. A jury returned a verdict accordingly.

Vivisections in Paris.—The practice of operating on living animals, which has been carried on for years at the veterinary school of Alfore, near Paris, has lately been prohibited by order of the authorities.

The Grocers in trouble in London.—Eleven years have now elapsed since the *Lancet* published the results, in its weekly issues, of the labours of its analytical sanatory commission, who submitted to examination samples of all the ordinary diatetic articles, and published the names, and places where they were obtained, and whether genuine or spurious or adulterated. The duty was discharged without fear, favour, or affection, and it effected an immensity of good. Evidently there has been a return to the old fraudulent practices, as the authorities connected with the same journal propose to repeat their operations immediately.

New Anesthetics.—The vapour of turpentine has been proposed as such by a writer in the *Lancet*. It was first used by him in a case of neuralgia of the supra orbital nerve by being sprinkled on a handkerchief, and inhaled like chloroform. He has used it since in slight operations, cramps, nervous irritation, &c., and found that it induced anæsthetic sleep. More lately Dr. Bowditch presented to the Boston Society for Medical Improvement from Mr. Merrill a liquid bearing the name of Keroselene, for the same purpose. This fluid is stated to be "tasteless as water, volatile, and inflammable as ether, burning with a clear white light; of a faint chloroform odour, changing to that of coal tar, and far more agreeable than chloroform or ether for purposes of inhalation. A few whiffs sufficed to demonstrate its anæsthetic powers. Dr. B. says that the article was administered to him by Dr. Hodges. Complete insensibility supervened, lasting several minutes, with some diminution of the volume of the pulse. Its effect was wholly agreeable, leaving neither headache nor nausea nor bad taste. It has been administered in three cases, one of hysteria, in another case preparatory to an operation on the face, and in the third for an operation for a running abscess. Some symptoms of apoplexy supervened in the second and third cases. The quantity inhaled varied from one to two ounces.

We call attention to the statistics of mortality, prepared by Dr. Fenwick, which we published to-day. The tables are for the months of January, February, March, and April of last year. We are aware that the object of the compiler is to draw attention to this important subject, and of the great necessity of a proper enregistrement law, an enactment which is greatly needed, and which would enable us to give a comparative statement of the death-rate for the whole province.

BOTANICAL SOCIETY OF CANADA.

A paper, being ostensibly an account of the meeting held in December last to organize a Botanical Society, but in reality a bird's eye sketch of Canada and of the present aspect of Canadian science from a German point of view, forms the leading article of "*Bonplandia: Zeitschrift für die gesammte Botanik*," of 15th May, 1861. That journal

is published at Hanover, and the article in question is from the pen of the chief editor Dr. Berthold Seemann, whose "*Reise um die Welt*," is well known to German readers, while his history of the palm trees and other works are no less popular in England. Dr. Seemann returned only a few months ago from an exploration of the Fiji Islands, and the members of the Botanical Society of Canada will accept it as a high compliment that his first literary production on his return to Europe should be an appreciative comment on their labors. The wise counsel which Dr. Seemann gives as to the management of scientific societies will be appreciated by other similar institutions in the Province as well as the Botanical Society. The Society is indebted to one of its Fellows, Mr. John Machar, A. M., for the following translation, in which the spirit of the original is well preserved :

"THE BOTANICAL SOCIETY OF CANADA.—Were the Spanish adventurers, who, after a bootless quest for imagined treasure, cried out in their disappointment 'Aqui nada,' to visit Canada now, after the lapse of three hundred years, they would probably see cause to choose another exclamation than the one which, if tradition is to be believed, gave to a land of so great promise so unpropitious a name. In every direction signs of prosperity and progress meet the traveller's eye. Steamships of prodigious size and power maintain a regular and rapid communication with the ports of the old world. Railroads traverse the country in all directions. The white sails of countless vessels enliven the great inland waters, and what was ere while regarded as the daring feat of a reckless Indian to shoot the rapids of Lachine in his birch bark canoe is now part of the daily route of Canadian steamboats. With the aid of the ever-increasing Teutonic element, surmounting the obstacles afforded by the early circumstances of the country, * * * Canada marches on with giant strides toward a prosperous future. Edifices, which can challenge Europe to surpass them, adorn the streets of new cities, arisen as if by magic from the soil. The bridges spanning the Niagara, the Ottawa, and the mighty stream of the St. Lawrence, are with reason counted among the wonders of the world. Science, now pioneer, like, striding on in advance of the arts, now, singularly enough, straggling behind with halting step, has found here a congenial home—a hearty welcome. To this the rapidly rising universities, the well-known school system, the *Institut Canadien*, containing in itself the germ of a national academy, the Natural History Society of Montreal, amply testify. And now to this noble array a new union has been added, under the name of the Botanical Society of Canada—a union to which we can extend a hearty welcome, not as botanists alone, but even as Germans.

"Between the inhabited parts of North America and the inhospitable regions of the Arctic circle there lies a broad belt of land, which has hitherto been to the botanist almost a *terra incognita*. In Canada, therefore, a Botanical Society has for its operations a most extensive field, whereon many a (new) plant buds, blooms, and withers unnamed, unknown—whereon many a species attains its northernmost limits, and awaits the hour when some savant shall record its discovery in the annals of the science."

"Such facts as these, more even than that of ninety-three members having given in their adherence to the society on the very day of its foundation, encourage us to hope that in this new body we may expect something more than one of those ephemeral unions of local savans, who exhaust all their strength in the production of annals which are never read by the learned, whose perpetual contentions as to who shall fill their petty offices make them the laughing-stock of their fellow-citizens, and whose scientific investigations, because they do not come under the notice of the general public, are seldom conducted with the care exercised by those who know that their papers will not only, be read beyond their own locality, but perused with interest by the learned of other lands. We in Europe will watch with interest the progress and the labors of the Canadian society, and we shall ever be curious to learn the result of each new expedition into the unknown region. The very circumstances of the infant society afford a sufficient guarantee that it will never degenerate into a mere inert local club. Its mission is one in which the whole botanical world is interested, and all the gentlemen who

met together on the 7th December, 1860, at Kingston, in particular the members of the faculty of Queen's College, deserve the cordial thanks of their scientific brethren both in the old world and in the new for having so heartily laid their hands to the work of freeing Canada from the reproach of indifference to the claims of botanical science. Besides the interest which we naturally feel as botanists merely in the birth of a new society, ready to go hand in hand with us in the accomplishment of our common great end, for us as Germans the investigation of Canadian botany possesses the peculiar interest that one of our own countrymen, the gifted Frederick Pursh, first conceived and strove to execute the very plan now proposed by the Botanical Society at Kingston. After Pursh had travelled through the (then) United States, and had written on his return a *Flora of North America*, he set out once more for the new world, this time turning his steps towards Canada. Limited as were the means at his command, he explored a considerable part of Eastern Canada, and had almost completed his very valuable collection when the fruits of so many months of weary toil fell a prey to the devouring flames. Other misfortune befell him, and on the 11th day of July, 1820, he died at Montreal, in the 40th year of his age, so poor that the charity of a few friends defrayed the expenses of his funeral. We may imagine his manes may have looked on with rejoicing when on the 7th December, 1860, forty years after his death, the exploration of Canada was undertaken once more, and the sequel promised to justify his most sanguine anticipations.

“The first meeting of the new Society was held in Queen's College at Kingston. Dr. Leitch presided, and in a genial speech set forth the object and the necessity of such an association. Universities, he thought, discharge only one half of their functions when they restrict themselves to merely communicating the existing sum of acquired knowledge. They should incite to, nay, should themselves institute, original investigations. Referring to the numerous attendance at this first meeting, he remarked the difference between the auspices under which this society was ushered into the world, and the circumstances attending the foundation of the great European learned societies, with what difficulty a handful of faithful disciples of science were brought together, and how from that handful, by dint of their steadfastness, were developed those institutions which are now the pride of the old world. After Dr. Leitch a somewhat longer address was delivered by Dr. Lawson, in whom we recognize an old acquaintance and former active member of the Botanical Society of Edinburgh. The science of botany, he remarked, had been hitherto more neglected in Canada than in almost any other educated country. Up to the close of the 18th century but five botanical treatises had appeared throughout the length and breadth of the North American continent. Much improvement had since been made, but a *Flora of Canada* yet remained a *desideratum*. To collect materials for this end must be the chief function of this Society, and the report of the investigations in this Province will occupy a prominent position in the (to be) published ‘*Transactions*.’ Dr. Litchfield, whose talent for organization was of much use in the formation of the Botanical Society of London, next occupied the attention of the meeting. He dwelt particularly on the necessity of a Botanical Garden—set forth the advantages which would accrue to Canada from its institution, and directed attention to the means already at their disposal. Dr. Leitch then passed in review what had been brought before the meeting, and after paying Dr. Lawson a well merited compliment, moved, seconded by Dr. Williamson, ‘That this meeting resolve to form a Botanical Society.’ This motion having been unanimously agreed to, Prof. Mowat read the proposed laws, which, on motion of Dr. Dupuis, seconded by Dr. Yates, were received, with the reservation of the right of the Council to make any desired alterations. This having also been agreed to, the Botanical Society of Canada was declared to be constituted, and it was agreed that all official communications should be addressed to Prof. Lawson, Kingston, Canada. Business over, the members repaired to a sort of *Conversazione* in the Laboratory, where were exhibited microscopic preparations, drawings and scientific works, among which the reporter of the *Daily News* observed Schnitzlein's Iconography,

Hooker's Rhododendrons, Harvey's American Algæ, Seemann's Herald Botany, Hooker's Flora of North America, and other illustrated works.

BOTANICAL SOCIETY OF CANADA.

"He doth take my life
Who takes the means that doth sustain my life."

Within the past few days several farmers in the neighbourhood of Kingston have transmitted to the Botanical Society of Canada ears of wheat and other grains infested with an insect, which, although individually minute, presents a formidable appearance on account of the vastness of its numbers. In some cases the little parasite completely covers the ears of grain; in fact the wheat is "dark with it." The insect in question is a species of plant-louse. It is not probable that it now makes its appearance in Canada for the first time; but this season its unusual abundance has served to attract the attention of farmers. It appears from the newspapers that the same, or a similar, insect is at present infesting the wheat and other grain crops in the United States.

The aphides are very numerous, and many domestic plants, such as roses and geraniums suffer severely from their attacks; their usually green color has obtained for them the name of green fly. Naturalists, at one time, thought that every plant had its peculiar attendant Aphis; but it is now known that the same species, in most cases attacks various plants. They do not gnaw the leaves of the plant like caterpillars, but simply suck the juices.

The plant suffers, its energies are weakened, the leaves and other parts shrivel and blister, and an inroad is formed for other diseases.

In the present case, the fly, as yet, presents itself chiefly in the wingless form, the individuals appearing like rather large, crawling mites of a brownish-yellow color varying to apple-green. In some cases, where the whole ears were covered with the insects, the total destruction of the crop seemed inevitable, yet there is not much cause for concern. Undoubtedly, the yield will be lessened by their presence, and the quality of the grain perhaps, slightly deteriorated, but it is not likely that the injurious effects will prove so formidable in extent as the appearance of the insects is apt to indicate. In Britain, the bean crop is annually liable to the attacks of an allied black species (*Aphis Fabæ*), which appears in such numbers that, in autumn, when they acquire wings, they leave the bean fields and darken the atmosphere with living clouds—yet farmers do not find their bean crop very light. This is the so called "Cholera-fly" of Europe, which although ominous in aspect and name, is practically felt to be injurious only from its troublesome habit of flying over the country in clouds, covering the roads with a shower of living, crawling forms, and filling the eyes, nose, and mouth of weary travellers as they pass along, with the dusty roads in autumn.

The rapid reproduction of Aphides is one of the most singular features in their history, and serves to explain their apparently sudden appearance in vast numbers. In these insects the ordinary laws of development appear to be departed from; but the researches of Bonnet are now strengthened by the observations of phenomena of a similar kind in certain other insects. In spring and summer, the Aphides are all females, and wingless—there being no male individuals, whatever—yet, many generations of living young are almost weekly produced throughout the summer: these are likewise females. The males are not born until the end of summer or autumn. Some of these have wings, but their comparatively heavy bodies render their powers of flight very feeble, so that when they leave the plants upon which they are parasitic, they are carried hither and thither by the atmosphere currents.

In the case of garden roses, green-house plants, &c., an application of tobacco water, or tobacco smoke, serves to remove the aphides, or at least to lessen their numbers; but no satisfactory remedy is known to be applicable to field crops.

Kingston, August 9, 1861.

STATISTICS OF MORTALITY IN THE CITY OF MONTREAL.

From Returns of Interments in the Mount Royal Cemetery, January and February, 1860.

By G. E. FENWICK, M.D.

JANUARY.

Disease.	No.	Stillborn.	Under 2 Years.	2 to 8 Years.	8 to 15 Years.	15 to 20 Years.	20 to 30 Years.	30 to 40 Years.	40 to 50 Years.	50 to 60 Years.	60 to 70 Years.	Over 70 Years.	Not known.	Centre.	West.	East.	St. Antoine.	St. Anns.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	Country.	
Stillborn	6	6															2	3	1					
Scarlet Fever.....	2		2															1			1			
Fever.....	1							1															1	
Convulsions.....	2		2															1	1					
Hydrocephalus.....	4		2														2	1					1	
Congestion of Brain	1			2				1											1					
Paralysis	1										1								1					
Disease of Spine.....	1										1								1					
Whooping Cough.....	5		5		1														5					
Croup	1																	1						
Inflammation of Lungs..	5		1	1			1	1		1	1									2	2	1		
Consumption	10		1	1		1	5	1	1	1							1	3	2	2	1	1		
Stricture of Bowels.....	1						1										1							
Dropsy	3						2					1							1		2			
Childbirth.....	1								1														1	
Tumour.....	1						1													1				
Senile Debility.....	3											3					1	1	1					
Erysipelas.....	1								1								1							
Accidental.....	1												1										1	
Unknown.....	3												3						2				1	
Total.....	53	6	13	4	1	1	10	3	3	2	2	4	4				1	10	18	11	5	3	2	3

Of the above 17 were Males and 36 Females.

FEBRUARY.

Stillborn	2	2															1						1	
Measles	1			1														1						
Scarlet Fever.....	2			1	1													2						
Convulsions.....	1		1																		1			
Hydrocephalus.....	3		1	1	1													1	1				1	
Apoplexy	1										1							1						
Lunacy	1									1													1	
Whooping Cough.....	7		7															1	4	1		1		
Inflammation of Lungs..	5		1			1	1		1	1							1	1		2			1	
Consumption	12						5	5	1	1							3	2	3	3			1	
Disease of Heart.....	3					1	1	1									1		1				1	
Liver Complaint.....	1										1									1				
Dropsy	3					1						2							1	2				
Cancer of Stomach.....	1									1										1				
Puerperal Fever.....	1							1									1							
Childbirth.....	1						1										1							
Senile Debility.....	1										1												1	
Infantile Debility.....	7		7														1	4		2				
Accidental.....	3						1			1	1						1		1				1	
Not known.....	4						2	1				1					2			1			1	
Total.....	60	2	17	3	2		8	11	4	4	3	5	1				2	15	14	12	6	2	1	8

Of the above 29 were Males and 31 Females.

STATISTICS OF MORTALITY IN THE CITY OF MONTREAL.

From Returns of Interments in the Mount Royal Cemetery, March and April, 1860.

MARCH.

Disease.	No.	Still Born.	Under 2 years.	2 to 8 years.	8 to 15 years.	15 to 20 years.	20 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.	Over 70 years.	Not known.	Centre.	West.	East.	St. Antoine.	St. Anns.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	Country.
Stillborn.....	5	5													1		2	2					
Measles.....	1		1																				1
Scarlet Fever.....	1		1															1					
Convulsions.....	1		1																1				
Hydrocephalus.....	2		1	1															1				1
Congestion of Brain.....	1					1									1								
Softening of Brain.....	1								1										1				
Apoplexy.....	4							1	2		1							1	1	1			1
Hooping Cough.....	4		4															1	1	1			1
Inflammation of Lungs.....	10		5		1	1		1	1	1	1				1		4	1	3	1			
Consumption.....	8			1	2	5											1	2	1	2			2
Asthma.....	1										1						1						
Disease of the Heart.....	1							1											1				
Cancer of Stomach.....	1								1														1
Erysipelas.....	1			1						1									1				
Senile Debility.....	2											2			1								
Infantile ".....	3		3																	2	1		
Not known.....	2			1				1									1	1					
Total.....	49	5	15	2	2	4	6	3	4	2	3	3		1	3		10	9	11	6	1	2	6

Of the above 36 were Males, 10 Females, and 3 not known.

APRIL.

Stillborn.....	3	3																	1	1			1
Small Pox.....	1			1																	1		
Measles.....	1		1																				1
Scarlet Fever.....	7		6	1											1		2	1	3				
Convulsions.....	1		1															1					
Hydrocephalus.....	4		3	1											1		2	1					
Disease of Brain.....	3		1			1	1										1			2			
Congestion of Brain.....	2			1			1										1	1					
Epilepsy.....	1									1					1								
Apoplexy.....	1										1						1						
Hooping Cough.....	2		2													1		1					
Croup.....	3		2	1											1				1		1		
Inflammation of Lungs.....	7		3	2		1		1		1					1	1	2		1	2			
Consumption.....	13		1		1	4	1	4	2								4	2	3	4			
Disease of the Heart.....	1							1												1			
Dentition.....	1		1														1						
Diarrhœa.....	1		1																	1			
Dropsy.....	1							1												1			
Childbirth.....	1							1										1					
Senile Debility.....	3										3						2						1
General Debility.....	1						1													1			
Infantile Debility.....	1		1																1				
Not known.....	1							1							1								
Total.....	60	3	16	12	2	1	6	4	7	4	1	4		3	3	2	16	10	10	13	1	1	1

Of the above 29 were Males, 29 Females, and 2 not known.

STATISTICS OF MORTALITY IN THE CITY OF MONTREAL.

From Returns of Interments in the Roman Catholic Cemetery, January and February, 1860.

JANUARY.

Disease.	No.	Under 1 month.	Under 2 years.	2 to 8 years.	8 to 15 years.	15 to 20 years.	20 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.	Over 70 years.	Not known.	Centre.	West.	East.	St. Antoine.	St. Ann.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	St. Urs.	Grises.	Country.
Small Pox.....	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles.....	11	..	11	..	..	..	..	..	..	..	..	..	..	1	..	..	6	..	1	..	..	..	..	..	..
Scarlet Fever.....	4	..	4	..	..	..	..	..	..	..	..	..	..	1	..	..	2	1	..	..	..	..	..	..	..
Apoplexy.....	2	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..
Paralysis.....	3	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	1	..	1	..	..	..	1	..	..
Delirium Tremens.....	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Hooping Cough.....	3	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	..
Croup.....	4	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	..	..	..	..	..	..
Inflammation of Lungs	4	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	1	2	..	..	..	1	..	..
Disease of the Throat	1	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	2	..	..	..	..	..	..
Consumption.....	27	..	..	..	..	2	14	7	2	1	1	..	..	7	..	..	9	1	3	3	4	..	..	..	..
Asthma.....	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Dentition.....	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Worms.....	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Disease of Liver.....	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Dropsy.....	5	..	1	1	..	..	..	..	1	2	..	..	..	1	..	..	1	2	..	..	..	..	..	..	..
Childbirth.....	5	..	..	..	1	1	2	1	..	..	..	..	..	..	..	..	3	1	..	..	..	1	..	..	..
Cancer.....	2	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..
Rheumatism.....	2	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..
Abscess.....	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Accidental.....	4	..	1	..	..	..	2	..	1	..	..	..	..	..	..	..	..	2	2	..	1	1	..	..	..
Senile Debility.....	6	..	..	..	..	..	..	..	..	..	6	..	..	2	..	..	..	..	2	..	1	1	..	..	..
Infantile Debility....	83	33	48	2	..	..	..	..	..	..	..	..	..	1	2	2	7	12	7	10	8	12	20	2	..
Total.....	173	33	49	27	2	3	19	13	6	6	8	6	11	14	2	3	35	20	27	15	16	19	20	2	..

Of the above 84 were Males and 89 Females.

FEBRUARY.

Small Pox.....	3	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1
Measles.....	4	..	4	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	..	1	..	..	..	..
Scarlet Fever.....	3	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1
Fever.....	6	..	3	2	..	1	..	..	..	..	..	..	..	2	..	1	1	1	..	..	..	..	..	..	..
Convulsions.....	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..
Hooping Cough.....	7	..	2	5	..	..	..	..	..	..	..	..	..	..	3	..	3	1	..	..	..	..	..	..	..
Croup.....	5	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	2	..	..	..	..
Inflammation Lungs.	3	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1
Consumption.....	14	..	1	2	..	4	5	1	1	..	..	..	..	1	..	1	2	2	2	3	1	..	..	..	2
Disease of Heart.....	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Dentition.....	7	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	2	1	..	1	..	..	..
Worms.....	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..
Dropsy.....	5	..	1	..	..	..	..	..	2	1	1	..	..	1	..	..	1	..	1	..	..	..	1	1	..
Childbirth.....	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Cancer.....	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Rheumatism.....	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Abscess.....	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Senile Debility.....	14	..	..	..	..	..	..	..	3	11	..	..	..	2	..	..	2	..	1	5	1	1	2	..	..
Infantile Debility....	78	28	50	..	..	..	..	..	..	..	..	..	..	1	2	15	6	5	14	11	8	9	7	..	..
Total.....	158	28	64	21	9	..	7	5	4	4	4	12	..	7	4	4	27	19	16	28	13	15	12	13	..

Of the above 71 were Males and 87 Females.

STATISTICS OF MORTALITY IN THE CITY OF MONTREAL.

From Returns of Interments in the Roman Catholic Cemetery, March and April, 1860.

MARCH.

Disease.	No.	Age Groups											Cemeteries					Country.						
		Under 1 month.	Under 2 years.	2 to 8 years.	8 to 15 years.	15 to 20 years.	20 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.	Over 70 years.	Not known.	Centre.	West.	East.	St. Antoine.		St. Anns.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	St. Georges.
Small Pox.....	3	..	2	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..
Measles.....	4	..	1	3	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	1	..	..	..
Fever.....	7	..	3	1	..	2	..	1	..	..	..	..	..	..	..	1	..	..	..	3	3	..	..	..
Convulsions.....	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Congestion of Brain.....	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Paralysis.....	2	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..
Hooping Cough.....	23	11	12	..	..	..	..	..	..	..	..	..	1	..	..	7	2	6	1	1	3	..	2	..
Croup.....	10	3	6	1	..	..	..	..	..	..	..	..	..	..	..	2	1	3	3	..	..	..	1	..
Inflammation Lungs.....	5	..	..	..	1	1	2	1	..	..	..	1	..	..	..	..	3	..	..	..	..	..	1	..
Congestion Lungs.....	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Consumption.....	14	..	..	2	3	6	1	2	..	..	..	1	..	..	1	4	3	..	..	3	..	2	..	..
Asthma.....	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Dentition.....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Dropsy.....	6	..	..	..	1	1	2	2	..	..	..	..	..	..	1	..	1	3	1	..	..	..	..	..
Gravel.....	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Childbirth.....	2	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..
Cancer.....	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Rheumatism.....	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Abscess.....	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Gangrene.....	2	..	..	..	..	..	1	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..
Erysipelas.....	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Accidental.....	2	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
Senile Debility.....	8	..	..	..	..	2	2	4	..	..	..	..	..	..	..	..	2	3	..	1	..	2	..	..
Infantile Debility.....	84	49	34	1	..	..	..	..	..	..	..	1	1	..	13	12	8	5	6	4	30	4	..	..
Total.....	182	49	51	29	7	10	8	8	9	7	4	6	1	4	29	25	24	21	16	13	30	13	..	..

Of the above 84 were Males and 98 Females.

APRIL.

Measles.....	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..
Scarlet Fever.....	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Fever.....	12	1	5	2	..	2	..	2	..	1	1	1	2	..	..	..	..	..	2	..	1	4	..	..
Convulsions.....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Hydrocephalus.....	2	1	1	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..
Epilepsy.....	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Apoplexy.....	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Paralysis.....	2	..	..	..	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..
Mania.....	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Hooping Cough.....	12	8	4	..	..	..	..	..	..	..	..	..	..	..	1	1	1	4	2	..	3	..	..	..
Croup.....	8	4	4	..	..	..	..	..	..	..	..	..	..	..	1	4	..	1	1	..	1	..	..	..
Inflammation Lungs.....	5	..	1	2	7	4	4	1	1	..	3	1	4	1	1	4	1	4	1	4	..	1	..	..
Consumption.....	20	..	1	2	7	4	4	1	1	..	3	1	4	1	1	4	1	4	1	4	..	1	..	..
Disease Heart.....	2	..	..	..	..	..	..	2	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..
Dentition.....	8	8	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2	2	..	..	..	1	..	..
Worms.....	2	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..
Disease of Liver.....	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Dropsy.....	5	..	1	..	1	1	1	1	..	..	..	..	2	..	1	2	..	..	..	..	..	..	..	..
Cancer.....	1	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Rheumatism.....	2	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Abscess.....	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Accidental.....	2	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..
Senile Debility.....	10	..	..	..	..	1	2	4	3	..	1	1	..	1	..	..	1	3	2	1	..	..	..	..
Infantile Debility.....	81	41	40	..	..	..	..	..	..	..	..	..	1	11	4	3	7	8	2	37	8	..	..	..
Total.....	183	41	64	19	4	3	9	9	6	11	12	5	7	2	32	29	11	9	25	24	14	39	20	..

Of the above 91 were Males and 92 Females.

THE NEW SYDENHAM SOCIETY.

We beg to call attention to the following notice of the New Sydenham Society:—

Series of Works for 1861.—The following Works will (should nothing unforeseen prevent) be issued during the current year:—

I.—A Year-book of Medicine and Surgery for 1860.

II.—The first volume of Casper's Forensic Medicine.

III.—The second and concluding volume of Frerichs' Clinical Account of Diseases of the Liver. The second volume of this Work has not yet been published in the original. By the courtesy of its author and publishers (who have supplied the sheets as printed off) the Council will be enabled to have the translation ready almost simultaneously with the appearance of the Work itself.

IV.—A volume of selected Monographs, comprising—

1. Czermak on the Practical uses of the Laryngoscope. Numerous Woodcuts.

2. Schröder Van Der Kolk on Atrophy of the Brain. Four Lithographs.

3. Dusch on Diseases of the Cerebral Sinuses.

4. Esmarch on the uses of Cold in Surgical Practice.

5. Radicke's Papers on the application of Statistics to Medical Enquiries.

V.—A Second Fasciculus of the Atlas of Portraits of Skin Diseases, comprising Plates from Hebra, illustrating, Psoriasis Diffusa; Ichthyosis; Lupus Serpiginosus; Alopecia Areata.

In addition to the above the following works are also in preparation for the Society: Vogel and Neubauer on the Examination of the Urine: a manual intended for the assistance of the practical physician. With Lithographs and Woodcuts. [The publication of this Work has been deferred on account of the expected appearance of a new and much emended Edition of the original.]

A Year-book of Medicine and Surgery for 1861.

The second volume of Casper's Manual of Forensic Medicine.

Professor Donders on the Diseases of Accommodation of the Eye. With a preliminary Essay on the Dioptrics of the Eye, by the Author.

Smellie's Midwifery. Reprinted, with notes and preface, &c., bringing the Work up to the present standard of knowledge; by Professor Simpson of Edinburgh.

BIRTHS, MARRIAGES, AND DEATHS.

MARRIAGES.

At Detroit, Michigan, U. S., on the 22nd July, at St. Paul's Cathedral, by Right Rev. Bishop McClosky, James Sutton, M.D., of McGillivray, C.W. to Emma Pratt, of Greenleaf, Minnesota, U. S.

DEATHS.

In Sorel, on the 19th July, Carter, infant son of Dr. J. E. Johnstone, aged 14 months.

In London, on the 13th June last of confluent small-pox, Henry Gray, F.R.S., at the early age of 36. Mr. Gray was Lecturer on Anatomy at St. George's Hospital, and is favourably known as an author by his works, "Descriptive and Surgical Anatomy," and his prize dissertation "Structure and uses of the Spleen."

On the 11th June, Benjamin Phillips, F.R.C.S., F.R.S., &c., aged 50, formerly surgeon and Lecturer on Surgery at the Westminster Hospital. He was the author of several important works on surgical science.

At Weimer recently, of apoplexy, Dr. Robert Frerief, well known as Professor at Jena and Berlin, and as a large contributor to periodical literature.

Recently very suddenly, while apparently in most robust health, supposed from rupture of a large vessel of the heart, Dr. Killiet, of Geneva, well known by his valuable and classical work "On the diseases of children," written in connection with Dr. Bartiez.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT MONTREAL IN JULY, 1861.

By Archibald Hall, M.D.

Day.	DAILY MEANS OF THE								THERMOMETER.		WIND.		RAIN AND SNOW.			GENERAL OBSERVATIONS.
	Barometer corrected to F. 32°	Temperature of the Air.	Dew Point.	Relative Humidity.	Ozone.	CLOUDS.		Maximum read at 9, P.M.	Minimum read at 7, A.M.	Its general Direction and Mean Force from 0 Calm to 10 Violent Hurricane.	Rain in 24 Hrs read at 10, A.M.	Snow in 24 Hrs read at 10, A.M.	Total rain and melted snow			
						Amount.	General description.							Inch.	Inch.		Inch.
1	29.859	62.1	55.9	0.106	0.10	0.10	Cu.	88.6	55.8	N.N.E.	0.10					
2	29.795	57.8	53.1	.86	10.00	10.0	Nimb.	83.5	54.9	N.N.E.	6.0					
3	29.893	65.2	57.3	.86	9.00	7.0	Cu. St.	70.7	57.0	N.N.E.	2.17				Comet seen for first time.	
4	29.963	73.5	57.7	.64	3.50	0.3	Cu.	81.0	58.4	S.W.	Inap.				Inap.	
5	29.933	80.8	63.6	.59	3.50	0.3	Strat.	86.4	59.8	S.W.	1.6					
6	29.909	78.5	65.1	.67	4.00	1.3	Cir. St.	86.8	66.8	S.S.W.	1.6				Faint Solar Halo about noon	
7	29.848	79.4	67.4	.69	5.50	6.3	Cir. St.	86.0	70.0	S.W.					[Auroral light.	
8	29.710	81.8	68.1	.65	5.00	5.0	Cu. St.	90.2	73.2	S.W.	Inap.				Inap.	
9	29.570	73.1	67.0	.85	7.00	6.0	Cu. St.	82.0	66.2	W.					Hurricane on Sat. 11 a.m.	
10	29.680	69.3	60.0	.74	6.50	3.3	Cu. St.	76.2	64.0	N.	0.71			0.71	Squally about 2 p.m.	
11	29.658	55.8	53.4	.93	7.50	4.0	Nimb.	59.9	52.0	N.	0.95			0.95	A Thunderstorm 11 a.m. & 4 p.m.	
12	29.783	60.5	52.7	.79	8.50	8.0	Cu. St.	64.0	56.0	W.S.W.	0.17			0.17	p.m. earth quake 9, 5 p.m.	
13	30.081	62.6	53.7	.76	5.50	4.0	Nimb.	68.9	56.9	N.E.	1.3			0.04	Faint Auroral light.	
14	30.124	65.3	49.8	.67	5.50	7.3	Cu. St.	70.2	56.9	E.N.E.	1.6					
15	29.834	62.0	58.5	.91	10.00	10.0	Nimb.	65.2	57.6	N.	1.0			0.39		
16	29.755	66.0	57.7	.78	10.00	9.3	Cu. St.	73.3	58.7	S.W.	0.13			0.13	Thunderstorm from W.N.W. at 8.45 p.m.	
17	29.847	66.7	54.4	.68	6.90	3.0	Cu. St.	72.6	59.3	S.W.	0.20			0.20	Thunderstorm S.W. 11 p.m.	
18	29.846	58.3	53.2	.72	8.00	5.0	Cu. St.	72.9	57.3	S.W.	1.6					
19	29.685	71.2	62.6	.78	9.00	8.0	Cu. St.	76.2	64.3	W.N.W.	1.3			0.34	Thunderstorm.	
20	29.543	66.0	59.5	.84	10.00	10.0	Nimb.	71.5	61.3	N.	1.3			1.04		
21	29.720	67.7	60.0	.79	6.00	2.0	Cu.	73.0	58.9	W.	0.23			0.23		
22	29.836	64.6	62.3	.68	5.50	3.6	Cir. St.	69.3	57.3	W.N.W.	1.5					
23	29.944	61.7	53.3	.74	4.50	7.6	Cu.	69.3	56.0	N.	2.0					
24	30.041	66.7	57.1	.70	3.50	6.6	Cu. St.	74.7	61.3	W.N.W.	1.6				Faint Auroral light.	
25	30.063	70.3	57.8	.68	4.00	3.3	Strat.	77.7	57.0	N.	1.3				Faint Auroral light.	
26	29.949	74.6	59.4	.62	3.25	0.0	0	72.2	59.3	S.S.W.	3.0				[9.15 p.m.	
27	29.933	72.8	65.0	.78	6.50	4.3	Cir. St.	82.2	57.6	N.W.	1.6			0.63	Thunderstorm from N.E. at	
28	29.876	76.6	65.6	.72	5.50	3.3	Strat.	83.0	66.4	E.N.E.	1.3			0.55		
29	29.778	72.1	61.4	.77	9.50	9.6	Cu. St.	76.2	62.9	S.W.	1.6			0.31	Thunderstorm S.W. at 12 m.	
30	29.842	74.4	65.3	.80	4.00	5.3	Cu. St.	75.2	67.5	S.W.	2.3			0.67		
31	29.809	70.3	65.7	.89	10.00	10.0	Cu. St.	72.0	66.5	S.W.	1.0			0.25		
S's															8.48	
M's	29.842	69.09	59.43	755				71.19	60.66							

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT TORONTO IN JULY, 1861,

Compiled from the Records of the Magnetic Observatory.

Day.	DAILY MEANS OF THE					THERMOMETER.		Dew Point at 9, P.M.	WIND.		RAIN AND SNOW in 24 hours, ending at 6 A.M. next day.			GENERAL REMARKS.
	Barometer reduced to 32° Fahr.	Temperature of the Air.	Relative Humidity.	Amount of Cloudiness.	Maxim. read at 5 A.M. of next day.	Minim. read at 7 P.M. of same day.	General Direction.		Mean Velocity in Miles per hour.	Rain.	Snow.	Total rain and melted Snow.		
													Inch.		Inch.	Ozone in 24 hours ending 6 A.M. of next day.
1	29.522	59.23	67	0-100	0	61.6	53.5	51.0	21 W.	6.33		0.10		Comet whose presence was indistinctly seen on previous night very bright.
2	29.470	54.47	65	6	67.2	47.0	43.0	44 W.	9.25					
3	29.603	66.90	58	3	87.5	49.4	59.5	87 W.	3.40					
4	29.620	67.53	70	1	80.0	51.2	65.0	1 E.	2.37					
5	29.585	69.77	66	1	81.4	55.0	65.0	9 W.	3.32					
6	29.564	69.43	69	5	80.8	59.6	64.5	18 W.	1.90					
7		Sunday			84.5	61.4		18 W.	2.17					
8	29.473	73.85	70	6	81.2	65.8	70.5	24 W.	4.91	.035			Thunderstorm during even.	
9	29.317	72.05	75	7	83.0	65.0	52.0	81 W.	5.29	Inap.				
10	29.370	64.38	77	8	75.2	55.8	52.5	12 E.	8.30	.875			Thunderstorm during day.	
11	29.420	55.27	77	7	61.2	53.2	50.0	39 W.	9.35	.013				
12	29.580	57.98	73	5	64.8	47.2	53.0	42 W.	9.67					
13	29.779	59.92	76	7	69.6	54.0	55.0	19 W.	1.94					
14		Sunday			71.4	50.8		16 E.	1.35					
15	29.543	59.75	86	10	65.2	51.6	60.0	36 W.	0.90	.135			Thunderstorm at midnight.	
16	29.456	64.30	71	5	75.0	57.2	61.5	69 W.	3.35	.245				
17	29.563	61.88	74	4	73.4	47.0	60.0	21 E.	2.14				[sheet lightning all even.	
18	29.503	67.28	78	7	77.2	55.2	65.0	28 W.	4.53	.607			Distant thunder, incessant	
19	29.288	66.03	80	7	76.0	60.4	64.0	19 W.	3.60	.400			Thunderstorm during day.	
20	29.4107	63.38	73	2	72.0	57.5	62.0	44 W.	10.03					
21		Sunday			69.8	52.0		40 W.	4.50	.010				Solar halo during forenoon.
22	29.670	60.77	73	2	68.5	51.8	58.0	26 W.	4.87	Inap.				
23	29.675	65.87	57	5	75.8	54.0	50.0	1 E.	4.79					
24	29.723	66.12	80	2	77.2	55.5	62.0	31 E.	1.83					
25	29.692	67.83	67	8	73.0	52.4	65.5	7 E.	4.15					
26	29.572	70.20	78	10	78.0	63.4	65.0	19 W.	4.12	.085				
27	29.627	68.68	80	9	79.0	65.0	63.5	33 W.	4.57				Thunderstorm with very heavy rain.	
28		Sunday			74.7	64.5		13 E.	9.35	.590				Thunderstorm light & rain.
29	29.4503	66.57	82	2	73.4	61.8	65.0	56 W.	5.75	Inap.				
30	29.580	71.20	74	2	80.8	58.2	67.0	15 W.	3.82	.230				
31	29.5058	73.02	82	6	81.4	66.8	70.0	26 W.	3.51	.010				
S's										2.635				
M's	29.5505	65.37	74	6	74.67	56.23	60.43	N. 74 W.	4.66					