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CANADA
MEDICAL AND SURGICAL
JOURNAL.

A
Monthly Record
OF
MEDICAL AND SURGICAL SCIENCE.

EDITED BY
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CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Subcutaneous Injection of Chloroform in the Treatment of Facial Neuralgia. By GEO. WOOD, M.D., C.M.

I wish to lay before the readers of your useful journal a new treatment for neuralgia. I have only seen it tried in two cases, and in both it has been entirely successful. I do not claim the discovery of this method of treatment, nor can I give my authority. I saw it recommended in some American Medical Journal and availed myself of it in the treatment of one of the severest and most obstinate cases of facial neuralgia, that it was ever my misfortune to meet with.

D. C. H. Aged about fifty, dark hair, eyes and complexion, very spare, weight 125 lbs, has suffered from facial neuralgia of left side of the face since 1854, has undergone all systems of treatment with little or no relief. In 1872 had the lower jaw trephined and a section of the nerve removed, this gave him relief for several months, but eventually the neuralgia returned harder, if possible, than ever. He first came under my care in August 1873. I gave him different iron tonics, bark, hypodermic injections of morphia, croton chloral hydrate, and also the different and various neuralgic pills that I ever heard of, with but temporary success.

In August of 1874, I injected 15 minims of chloroform underneath the mucous membrane of the lower jaw, as near the exit of the mental branch of the 5th pair as I could. It gave him entire relief in an hour, but caused partial paralysis of the muscles of the left cheek. In a week I repeated the injection and put him upon drachm doses

of the Elix. of Guarana three times a day. In September and December, and also in April, he had a very slight return of the pain, each recurrence being less severe. At each of these times I repeated the chloroform, and he now seems to be entirely well.

My partner, Dr. Rose, had a lady patient, unmarried, æt about 45, who had been a terrible sufferer from the same disease for seventeen years, had consulted the most eminent men in this and foreign countries, and had tried all the prescriptions recommended. The only thing that gave her any relief was the hypodermic injection of morphia. She was obliged to use them, sometimes several times a day. Her mind and morals were very much disordered. Dr. Rose tried the hypodermic use of Chloroform, and she is now entirely well. Her mind is as clear as of yore, and she seems and acts like a new being. The injection of chloroform is extremely painful unless preceded by an injection of ten or fifteen minims of Magendie's sol. of morphia. If this suggestion can give relief to others suffering from this most painful disease I shall be most happy. I intend using the chloroform in the first case of Sciatica that comes into my hands.

Faribault, Minn., June, 1875.

Case of Invagination or Intussusceptio, recovery under the care of GEORGE C. DUNCAN M. D., C. M.

On the evening of May 8th, I was called to see B. McP. aged 17 months. On entering the room I found the patient in her father's arms, very cross and restless, face flushed, pulse rapid, respiration hurried and stertorous. The nurse informed me that the child had been very restless for several days and would start in her sleep, and had eaten nothing but milk for which it had a great desire, taking large quantities during the day. She also stated that the child had vomited several times to-day, that her

bowels had been regular until four days previous, when she had a slight diarrhoea for one day, and had not had any motion for two days, until this morning, when she passed a few hard masses of foecal matter. The abdomen was moderately tympanitic, but on account of the child's crying I could elicit nothing by percussion. Thinking that it might be worms, I ordered

R. Santonin, grs. vi.
ft. pulv iii.

One to be taken every 12 hours.

Also ℥ss of ol Ricini to be given immediately.

May 9th, I was called early this morning, the messenger stating that the child was very bad. Upon my arrival I found that the bowels had not been moved. The abdomen more tympanitic than last evening, and the symptoms then found much increased. I immediately proceeded to give the child an injection of soap and water but before doing so on introducing my finger into the rectum about $1\frac{1}{2}$ inches it came in contact with a firm rounded tumor with a depression in the centre, imparting a sensation to the finger much like the os uteri; with steady pressure it would recede but immediately return on the withdrawal of the finger. I proceeded to administer an enema, but could not get more than a few ounces to enter, but by withdrawing the syringe and forcing the bowel up as far as my finger could carry it and lowering the child's shoulders I succeeded by using firm and steady pressure in injecting about a pint. On withdrawing the syringe I was surprised to find that no fluid escaped, and upon examining I found that there was a large mass of hardened fœces plugging the anus, which by the continued pressure of the fluid above, and the straining of the child forced the rectum so low down, that I could exert pressure through the perineum behind the mass, and much to the astonishment of the child's father, I succeeded in getting out a piece of hardened fœces $2\frac{1}{2}$ inches in length and 1 inch in diameter, and immediately following it several

small pieces with the enema. On another digital examination the same state existed, but the tumor was much smaller and softer and could be returned quite easily as far as the finger could reach. The child appeared much relieved, and I ordered her to be kept quiet, and allowed nothing to eat or drink, except a little cold water and milk to allay thirst.

(6 P.M.,) Very restless, respiration and pulse increased since this morning. On examining per rectum the tumor was increased, and is harder than when I left it in the morning, I gave another injection and removed with my finger two oval pieces of fœcal matter, about $\frac{3}{4}$ inch in diameter and $\frac{1}{2}$ inch in thickness.

May 10th. Did not sleep well last night, and is very cross and restless, and appears weak, abdomen still somewhat tympanitic. Gave another injection, but did not remove any fœcal matter. I then passed a small flexible bougie which met with a slight obstruction about 4 inches from the anus but with gentle pressure it passed easily some 6 or 8 inches farther, when it was stopped, and following its withdrawal there were several ounces of thin fœcal matter, which was suddenly stopped, and followed by violent straining; I then withdrew with my finger two more hardened masses. The parents and friends becoming alarmed about the child starving, I ordered chicken broth and small quantities 3ss. of brandy every three hours.

(6 P.M.,) Much better and wants to walk.

May 11th. Had a natural motion of its bowels this morning and seems much better, and asks for something to eat; ordered beef tea, and to be kept quiet.

May 25th. Since last date the child has been doing well and has been walking about as usual appearing quite recovered, her bowels acting quite naturally.

Cowansville, May 20th, 1875.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE
MONTREAL GENERAL HOSPITAL.

Reported by J. C. CAMERON, M.D., House Surgeon, M.G.H.

In Dr. MacCallum's wards, during the past two months, several cases of interest have been under observation; from the very careful and complete notes taken by the members of the Clinical Class, the following brief reports have been arranged:

Iodoform as a Local Application.

As considerable attention has been directed of late to the action of Iodoform, and as its results have been described as being but little short of marvellous, Dr. MacCallum determined to try it upon several chronic ulcers which had resisted all the ordinary modes of treatment.

CASE 1.—J. D., admitted with a large unhealthy ulcer, evidently of specific origin, situated about the middle of the thigh on its posterior surface. It was three inches long by two inches broad. The edges were hard, raised, thickened and undermined in places. The discharge was copious and sanio-purulent. Poultices, carbolic wash, red wash, black wash, chloral wash, and nitric acid wash were all tried in turn, without altering much the unpromising appearance of the sore. Iodoform reduced to a very fine powder was dusted over the whole sore, and in thirty-six hours a lapsing of cicatricial tissue had formed around the edges and the sore was reduced about three-fourths its original size. The powder was applied on three occasions afterwards and in three weeks from the first application, the sore was completely healed, the cicatrix being unusually firm and healthy in appearance.

CASE 2.—J. D., a laboring man, 40 years of age, engaged in blasting stone for the Corporation, got his leg severely

injured by a blast in January; a large fragment of rock struck his leg inflicting a contused and lacerated wound in the calf and tearing the flesh from the heel in a fearful manner. The torn edges were brought as closely together as possible, free exit was given to the products of inflammation, and after a great deal of trouble the wound was all healed except a small patch about two inches long by one broad, just in front of the internal malleolus. This resisted every sort of stimulating application, including strapping and blistering. The surface was ash grey in color devoid of granulations, with hard, raised, thickened round edges. After five applications of the Iodoform the sore was reduced to about the size of a bean, and in a few days more it will be quite well.

CASE 3.—B. M., æt 43, admitted with ten or twelve small unhealthy sores between the knee and ankle of the right leg. Eighteen years ago, she scratched her leg with a rusty nail, the wound ulcerated, and since that time she has never been quite free from those small painful and irritable-looking sores, for as fast as some would heal, others would break out. With her, too, all sorts of applications had been tried, but without any very marked effects; blisters seemed to answer better than anything else in her case. Iodoform was applied five times and the leg healed up thoroughly.

CASE 4.—W. M., æt 23, admitted with two large chancreids. Various stimulating and alterative washes were applied, as black wash, chloral wash, nitric acid wash, &c.; but the progress of the case was slow. Iodoform was applied twice, and the man left hospital almost well.

There are several other cases of the Iodoform treatment under observation, but the notes are not yet completed. Iodoform seemed in the above cases to act as a rapid and powerful alterative. About ten minutes after the powder had been dusted on the sore, the taste of Iodine was quite perceptible in the mouth: slight dryness of the throat was

felt by some, nausea by others; while one complained of a continual sour taste in the mouth and throat, which made her unwilling to drink any milk for fear of souring it. The action of the Iodoform seemed most marked in these cases in which a specific taint existed. The unhealthy ash-grey appearance changed at once and healthy granulations sprang up. When too frequently applied it over stimulated the sore, and had to be discontinued.

Fracture of the Humerus from a Powerful Wrench of the Wrist.

A rather curious case of fracture was admitted in the month of April. J. D., a soldier, about 40 years of age, a fine, powerful, muscular man, was testing his strength with a comrade by "twisting wrists;" for some little time neither party seemed to gain any decided advantage, till at last the patient's opponent suddenly raised his elbow from the table and gave a sharp quick wrench, snapping the patient's humerus about the middle of the shaft. The arm was put up in the ordinary way, and a good recovery was made in four weeks. The suddenness of the wrench and the violence of the muscular effort exerted by the patient to recover from it proved too much for the resisting power of the bone.

Case of Favus.

T. A., a lad of sixteen, a sailor, applied for admission to Hospital with his head almost completely covered with favus crusts. The hair was mostly short, dry and brittle, and matted with the discharges, and altogether the case seemed by no means very promising. The crusts and hairs were carefully examined under the microscope; the achorion was everywhere very plentiful. He was put upon five drops of Fowler's Solution, three times daily; poultices were applied to the head to clear off the crusts, and epilation

decided upon. The case was then entrusted to Mr. N. Smith, to whose perseverance and assiduity the favorable termination of the case is largely due. A small patch of the scalp was cleared every day by carefully pulling out each hair with a fine pair of forceps. A wash of

Hydrarg, Bichlorid. grs vi,
 Ammon. Mur. ʒ ss.,
 Aquae ad ʒ viij.

was then rubbed carefully into the cleared surface. All the diseased hairs were in this manner gradually removed and the parasiticide applied to the whole scalp. As new hairs grew up, any which had a suspicious appearance were at once pulled out and the wash well rubbed in. After two months of this treatment, carefully and persistently carried out, the patient left hospital without a vestige of disease. The hair was growing well and was quite healthy in appearance.

Correspondence.

VIENNA, May, 1875.

To the Editor of the Canada Medical and Surgical Journal.

DEAR SIR,—Vienna is certainly the place for one to come to who wishes to post himself in medicine, both general and special. The amount of material is enormous, and the teaching first rate. There is scarcely any organ or part of the body that is not made a specialty of here. In fact, as a friend of mine remarked the other day, some man ought to make diseases of the navel a specialty to complete the list. The Medical Department of Vienna University has a world-wide reputation, and justly so, too; while it still has amongst its Professors such men as Billroth, Hebra, Bamberger, Brücke, Carl Braun, Meynert, and many other lesser lights, all of whom teach daily and are listened to by crowds of admiring students and medical men from all

parts of the globe. The private courses, which are given by the docents and assistants, are the ones most patronized by foreigners, on account of their being less crowded. The great drawback to an Englishman or American is his deficient knowledge of the language. Vienna is the last place in the world one would come to study German, on account of the numbers of English-speaking people here; besides, at the courses, five-sixths of the men are foreigners. The Viennese seem to have a great talent for languages; it is rare to find a man who does not at least speak two. One meets people who speak English everywhere, and they, unlike the Anglo-Saxon, if they know a foreign language even very slightly, are not at all bashful about speaking it, and take every opportunity afforded them of conversing in it. The best thing for a man to do, who intends studying in Vienna, is first to go to some small University town in North Germany, where good German is spoken and there are none of his countrymen near; in this way he will learn as much German in three months as he can in six in Vienna. In these small University towns he will be able also to attend medical clinics, and I have no hesitation in saying that his time will not be wasted. In these small towns he will see more of real German life, and see the typical hard-working, beer-drinking, duel-fighting German student. I went to Marburg, in Hessen, Prussia, for two months, and am now sorry I did not remain longer, or rather go earlier. Marburg is a very old University town, and has had some celebrated men as Professors, who afterwards were appointed to larger Universities. Amongst those there at present are Professors Lieberkühn and Roser,—the former Professor of Anatomy and the latter of Surgery. Lieberkühn is known to every student of Anatomy and Physiology. I have heard him lecture frequently. He makes Anatomy very interesting, and illustrates his lectures beautifully by specimens and drawings; he is very fond of telling funny stories, and is a great favorite with the students. The Marburg students are

typical German ones, and spend four-fifths of their time smoking, drinking beer and fighting duels. The Medical students do not indulge in these pastimes to such an extent as students of Philosophy and Languages, and Theology. Nearly all the Medical students having passed through the Arts Faculty, have lived long enough to see the error of their ways, and really work hard. Almost every other student one sees is disfigured by scars received in duels. These duels are rarely or never fatal, as they fight always with blunt swords and no thrusting is allowed; every part of the body is protected, except the face and top of the head. The eyes are protected by spectacles, and the throat by a stock which reaches to the chin. Whilst in Marburg I must have witnessed fifty duels; in fact they are of daily occurrence, and on Saturdays there are generally seven or eight.

The Hospital in Marburg contains about a hundred beds. It was here I first saw hypodermic injections of carbolic acid, of the strength of one to fifty, used for erysipelas, and with apparently good results. The injections were made in the neighborhood of the eruption. They also injected carbolic acid of the same strength *into* joints for synovitis. The surgeons spoke highly of this treatment, and certainly, as far as I could see, it did no harm. I also saw here the the operation of transfusion performed in a case of scarlet fever. The temperature in the axilla was 106° Fahr.; extremities cold, and pulse not perceptible at the wrist. The blood was injected into the radial artery. The operation was followed by a decided rally, but the patient died twenty-four hours after. Hoping that you will pardon this digression, I shall return to Vienna.

One great advantage of Vienna is the number of special courses continually going on, on diseases of the eye, ear, throat, &c. On the ear, by Professors Gruber and Politzer; on the throat, by Professors Schroetter, Stoerk, Snitzler, &c.; on the eye, by Professors von Jaeger, Arlt, Stillwag, &c. It is extraordinary the number of patients that attend

these clinics, and at them students have every opportunity of examining the cases. Diseases of the eye can be studied to great advantage, and courses are being continually given on the pathology, diagnosis and therapeutics of the external diseases of the eye. Prof. Jaeger and his assistants give remarkably good practical courses of eye operations and the use of the ophthalmoscope. The courses in Operative Midwifery and Surgery are surpassed nowhere, not even in Paris. Material for these courses never seems to fail, and may be had almost for nothing. In the Operative Surgery courses given by the assistants of Professors Billroth and Dumreicher, one has generally, in a single course, the chance of performing all the operations twice, and some of the minor operations much oftener. The instruction is excellent, and the teacher sees that each one performs the operations carefully. These private courses last as a rule about six weeks, and cost on an average between seven and ten dollars, some more and some less. Students coming to Vienna should endeavor to arrive in October or early in January, as most of the classes at this time are commencing. The opportunities afforded here for studying skin diseases are greater than at any other school in the world. Four or five lectures are given daily, which are illustrated by numerous cases. Prof. Hebra visits his wards every morning at seven, and lectures from eight to nine. He is a very amusing lecturer to listen to, and his remarks on things in general display a large amount of common sense; his manner is rather rough, and at times he makes use of strong language, but his remarks are very original, and he generally tells one something new. A beginner would profit more by first taking a course with some of the other Professors before going to Hebra's clinique, as their manner of teaching is more systematic though not so entertaining as Hebra's. There are no less than five Professors of Skin Diseases connected with the University. Drs. Neumann and Kaposi were made "Extraordinary Professors" at the end of last term. In eczema and psoriasis, tar ointment

(ol. rusci) and green soap (sapo viridis) are used very extensively. There have been some very fine cases of pemphigus lately in the wards, one very severe case of which was treated by water baths. In this case, the man was kept in the bath for four successive days. Scabies, lupus and syphilides are the most common skin diseases here.

There was a curious case of tattooing exhibited lately at the Skin Clinique. It was that of a Greek sailor who was, with the exception of his face and hands, completely covered with tattoo marks from head to foot. Looking at him from a distance, one would imagine that he had a tight-fitting suit of clothes on. On close examination, the tattooing was seen to consist of a most intricate and beautiful pattern, some of the lines of it being almost microscopic. Curious characters were to be seen on some parts, and on his face and hands (the only parts not completely covered) were birds and beasts. His story was that years ago he was wrecked on an island in the Indian Archipelago. His companions were killed by the natives, with the exception of two, who with himself were subjected to this process of tattooing and dedicated to the gods. His two companions died under the process, but he, being a very strong man, survived. He says the tattooing took months before it was entirely completed. His story, I may say, is to be taken *cum grano salis*.

It is rumored that Prof. Recklinghausen of Strasburg is to succeed Prof. Rokitansky. I believe the position has been offered to several North German Pathologists, but none have accepted it. Prof. Rokitansky, it seems, wants to be succeeded by one of his old pupils.

One meets at the different classes people from every part of the globe: Russians, Swedes, Poles, Turks, Swiss, South Americans, and even Japanese. English and Americans are very numerous; there were at least fifty here last winter. So far I have only seen two female students, and they are both Americans. Foreigners are generally charged for courses twice as much as natives. It is quite common to

see a course advertised thus:—Inländer (natives), 10 fl. ; Ausländer (foreigners), 20 fl. Some of the teachers' are liberal enough to make no difference, but in these cases the course is generally charged for at so high a rate that 'natives' are virtually excluded. All the University lectures, viz: those given by the professors, are of course the same price for all ; but foreigners to be able to attend them have to prove that they have studied medicine and have to enroll themselves as "extraordinary" (ausserordentlich) students, unless the Professor has some special arrangement, which, as in the case of Prof. Hebra, allows them to do otherwise. There is a capital Children's Hospital (St. Ann's) quite near the General Hospital, which is very popular with the foreign medical men studying here. Prof. Wiederhofer has a children's clinique daily, and his course is one of the most crowded. His assistants give very good private courses, limited to ten men, in which numbers of out patients are seen, and the members of the class are daily taken through the wards to look at interesting cases. During the winter session there was a great number of croup cases, many of which were fatal. In ten (10) cases, Tracheotomy was performed, but not one recovered. Rickets seems to be the most common children's disease here, and goes by the name of 'Die englische krankheit, (the English disease.) The favorite treatment of pneumonia is by the wet sheet, as far as I could see the success of this method was not very great. The Children's Hospital is very well built and ventilated. One thing that strikes you on entering the wards is seeing over every bed a plate with the name of the person who gave a sum sufficient to furnish one bed. Instead of wards being given by one person as in England it seems to be the fashion for people to give enough to defray the expenses of one, two or three beds.

The corridors of the hospital are prettily decorated with numerous statues representing the various ways children are carried in different parts of the world. Among them is of course the Indian Squaw with a 'papoose' on her back

and a hatchet in her hand. One is often surprised at the class of people one sees at the clinics. It is no uncommon thing for a lady to come with a child in a carriage, accompanied by a nurse. Many of the patients without doubt could afford to pay a doctor. The doctors here are miserably paid. Legally, I believe (unless they are professors) they can only collect twenty kreuzers (ten cents) a visit, but one gulden (fifty cents) is the usual fee. In the University there are two Professors of Anatomy, and two sets of Lecture and Dissecting Rooms. Prof. Langer is Hyrtl's successor. Hyrtl resigned his post last year and is now living a few miles out in the country, where he spends most of his time gardening. He has taken his museum with him, and still continues to put up a few of those beautiful microscopic specimens for which he is famed. His museum, I hear, is soon to go to America, having been sold to a college in Philadelphia.

Subjects being so plentiful, dissecting costs nothing. As a rule, they are not injected, unless the student especially requests it. No preservative injection is used, it not being an object, where material is so abundant, to preserve a subject for any length of time. The lectures in anatomy are well worth attending; they are beautifully illustrated by specimens and diagrams. The black-board is used a great deal here in teaching Anatomy. A student who wishes to read anything up specially can always procure as many dried preparations, bones and 'pickled' specimens, as he needs. Connected with the Dissecting Room is a place fitted up with apparatus for preparing bones. Any number of bones are always lying loose about the Dissecting Room for the use of students. The Prosectors of Anatomy give private courses on "Practical Anatomy" which are numerously attended by students going up for examination. They dissect out roughly before the class what they intend to demonstrate, and have a fresh subject every day. The amount of material used up is startling to one who has always been accustomed to be careful of it on account of

its scarcity. Quite near the hospital is a medical college called the "Josephinum," founded in 1784, by Joseph II, for the education of military surgeons. The college contains a magnificent wax anatomical museum, said to be the finest in the world. Some of the models are very beautiful and are the works of celebrated artists. One model alone cost twenty thousand dollars. This museum is open to medical men daily from eleven till one. There has been a great deal of typhus fever here this winter, the patients are put in the wards with ordinary cases of pneumonia, phthisis, &c. Of late, there have been so many cases that they are thinking of building a special hospital for them, a thing which should have been done long ago. Last week a child was born in Prof. Braun's wards, without eyes, the lids were perfect but the eye-balls were completely wanting. Prof. Braun said he knew of but one similar case. During the winter Prof. Braun has shewn his class numbers of interesting cases, among which were two of double uterus. In the first of these cases the diagnosis of fibrous tumour was made and the true nature of the case was not found out till the supposed tumour had been cut into, and about a pound of retained menstrual fluid escaped. The woman died six days afterwards of peritonitis, and at the autopsy it was found that the right horn of the uterus did not communicate with the vagina, but was connected with the right ovary. The right ovary was merely a sac, and both it and the right Fallopian tube were much distended by the retained fluid.

When a case occurs in the midwifery wards requiring operative interference, and the time suits, it is brought into the lecture room and the operation performed before the class. Simpson's forceps are the ones most used here.

When a patient dies in hospital he remains in the bed and in the ward he died in for three hours, then he is taken to the dead-house, placed in a large room in bed, and has his fingers attached to a bell by a string, so that should he make the slightest movement, the bell rings and the atten-

dants are aroused. The room contains about twenty-four beds, and looks exactly like an ordinary hospital ward. It is rather a strange sight to see a ward full of corpses in bed. After having remained here twenty-four hours, a post-mortem is made (in every case). Then, if the patient has friends who can afford to pay for his funeral he is delivered to them, if not, he goes to one of the numerous departments requiring material. There is no case on record in this hospital where a patient has ever come to life after having been placed in this room as dead. It is an old custom (and the law requires that they should observe it), to keep a body with bell attached twenty-four hours after death.

The weather all last winter was very severe, such a continuous low temperature not having been known for years.

There was good skating every day during January and February. Snow storms were of daily occurrence. At present it is quite summer-like, the leaves are all out, and everything looks cheerful. In summer the people live almost entirely out of doors. They always, when fine, take their meals outside under awnings and trees which are in the Gardens connected with every 'Restauration.' The Prater is the fashionable promenade and drive and is full of people every afternoon. The cafés, with the crowds of people sitting out under the trees in front of them drinking coffee, the music of the various military bands, and the gay equipages continually passing, make the place both very lively and causes one to forget the disagreeableness of the past winter. To a man who has had a fair medical education, Vienna is the place to come to. Even if he is but slightly acquainted with the language there are many courses in which he can use his eyes and hands to great advantage. After attending lectures for six weeks or two months, and reading at home with a teacher, he will be able to make out pretty clearly all that is said. The expense of living is about the same as in London. Every advantage is here offered to men who wish to study specialities as the eye, ear and throat. Hoping that I have not intruded too much on your valuable space,

I am Sir, yours &c.,

F. S.

Reviews and Notices of Books.

Croup in its Relations to Tracheotomy. By J. SOLIS COHEN, M. D. 8vo. pp. 78. Philadelphia: Lindsay & Blakiston, 1874.

This is an essay which was read before the Philadelphia County Medical Society, January 14th, 1874, and ordered to be printed by the Medical Society of the State of Pennsylvania in their transactions for that year. The author states that "it is based upon a careful study of the published records of more than five thousand cases of Tracheotomy in croup, performed in various portions of the world." The labour entailed in such a study has been doubtless considerable, and the result has been a useful essay upon the subject.

The paper is limited to the subject of croup in its relations to tracheotomy, and the casualties incident to the disease, independently of the operation, such as general systemic infection, diphtheritic paralysis, pneumonia, and fibrinous deposits in the cavities of the heart, are not discussed.

Statistics are given, taken from French, German, British and American sources, which show that the results of the operation prior to 1850 were in the main unfavorable, and the much greater success which has attended the operation in the past twenty-five years, the author attributes to the increased care taken in the performance of the operation itself, and in the details of the after treatment. Age appears from an extensive range of statistics to have an important bearing on the result of the operation. It is seldom successful in children under two years of age, or over eight or nine, and very seldom or never successful in the adult. Sex does not appear to have any influence on the mortality.

The mortality in private practice is much less than in that of hospitals, for various reasons.

The bulk of the essay is occupied in the consideration of four main topics :

1. The indications for the operation.
2. The points of importance in connection with the operation itself.
3. The after-treatment of the disease and of the surgical wound.
4. The casualties which prevent recovery.

The author gives the opinions of various authorities on Croup as to the indications for the operation. According to Trousseau and Guersant, each of whom bases his opinion upon more than two hundred cases, the only insuperable contra-indication is profound diphtheritic infection of the economy.

The symptom *par excellence*, which calls for operation, according to Professor Heuter, is the marked sinking in of the front of the chest, especially of the lower end of the sternum. When the want of oxygen in the blood, or in other words the want of pure air in the lungs is strongly felt, the diaphragm and the other inspiratory muscles make violent efforts to draw as much air as possible into the chest. But if the free passage of air through the glottis is impeded and but little air enters the lung, the diaphragm does not descend as in ordinary respiration. Its central tendon becomes a fixed point, and its muscular fibres contracting, tend to draw its peripheral insertions toward the centre. The insertions of the diaphragm into the lower end of the sternum and the adjacent costal cartilages are the most movable, and hence these show most clearly the contraction, which draws these portions in powerfully with each inspiratory effort. There is also marked sinking above the clavicles from atmospheric pressure. This, however, usually sets in later than the depression at the epigastrium. Professor Heuter holds that these phenomena are of

more consequence in determining the question of operation, than the degree of stridor. As he says, "a great deal of dyspnoea may go hand in hand with little stridor, and a little dyspnoea with great stridor. Observation of the entire respiratory act affords a much safer estimate of the impediment to breathing." A dark blue color of the lips, and a pale and apparently œdematous condition of the cheeks, shows the retention of carbonic acid gas in the blood. "I consider that the hour for tracheotomy has come as soon as the substernal tissues sink in a marked manner on inspiration, and the blue color appears on the lips."

As regards the operation itself the author favours the use of anæsthetics, and chloroform is the anæsthetic which he prefers. Anæsthesia need not and should not be pushed to its full extent, as the carbonization of the blood has already produced a certain amount of anæsthetic influence. Most authorities appear to agree with these views, and find that chloroform relieves laryngeal spasm, thus enabling more air to enter the chest, while the movements of the trachea are lessened, the child lies quietly, and the physician is not interrupted by his struggles. The method of operating which seems to carry the greatest weight of authority with it, consists in making a careful dissection down to the trachea. As a rule there is no such urgent hurry in performing the operation as to prevent a dissection down to the trachea, and by so doing the risk of wounding the œsophagus, which has occurred in the operation by transfixion and incision at a single stroke, or of not passing the canula into the windpipe at all, is avoided. In the operation by puncture and incision, in several cases the canula has been found lying on the cellular tissue in front or at the side of the trachea.

Trousseau strongly disapproves of undue haste in performing the operation, and he said at the famous discussion on the subject, "A certain surgeon has reproached me with operating like a physician and not like a surgeon. Well, he had an opportunity, on one occasion, to operate like a sur-

geon, and with one stroke of his knife he divided the œsophagus as well as the trachea. Sometime afterwards he lost another patient by hæmorrhage during his brilliant operation. Since then he has operated more like a physician, and after a while he will become a very fair tracheotomist."

As a rule the author advises all hæmorrhage to be stopped before the incision is made into the windpipe, and this view is supported by most experienced tracheotomists. In making the incision care must be taken not to wound the posterior wall of the trachea or make a counter opening into the œsophagus. Sudden death may ensue from the flow of blood into the bronchi. False membrane may be present in the track of the knife, and the point of the knife may not pierce this, but push it back against the posterior wall, shutting up the wind-pipe, and rendering suffocation imminent. In these cases it is recommended to pass an elastic catheter to tear the substance loose, and through it air is blown to excite cough. Another danger is the falling of loosened pieces of false membrane upon the bifurcation, and their passage into the bronchi. This is to be overcome by aspiration through the catheter.

Heuter strongly advocates passing a catheter in every case of membranous croup, immediately after the trachea is opened, and suction should be made through it, to remove all pieces of membrane and blood which may have lodged at or near the bifurcation. The introduction alone of the catheter and its withdrawal will cause the expulsion of some of the blood and membrane without suction, which is not always free from danger to the operator.

After the trachea is incised its edges should be held apart by hooks and search made for the false membrane, as if it were a foreign body, and as much of it removed as possible before the introduction of the canula. Causes delaying the removal of the canula are treated of, and then the author goes on to speak of the after-treatment of the disease and the wound.

To this he attaches much importance, and as the statistics of tracheotomy show, it is mainly to increased care subsequent to the operation, that the comparative success since 1850 is due. The care of the canula is a matter of primary importance, and the author is very strict in his injunctions on this head. The casualties which prevent or retard recovery, as hæmorrhage, inflammation of the wound, erysipelas, gangrene, diphtheria of the wound, and emphysema are discussed and their appropriate treatment given. In summing up the author draws the following conclusions :

1. That there are no insuperable contra-indications to tracheotomy in croup.

2. That the administration of an anæsthetic for the purpose of controlling the child's movements is admissible in performing the operation ; but that it should be used with great caution.

3. That a careful dissection should be made down to the windpipe, and hæmorrhage be arrested before incising it whenever there is at all time to do so.

4. That the incision should be made into the trachea as near the cricoid cartilage as possible to avoid excessive hæmorrhage and subsequent accidents which might occasion emphysema.

5. That a dilator should be used or a piece of the trachea excised whenever any difficulty is encountered in introducing the tube.

6. That the tube should be dispensed with as soon as possible ; or altogether if the case will admit of it.

7. That assiduous attention should be bestowed upon the after-treatment, especially that of the wound ; and that a skilled attendant should be within a moment's call for the first twenty-four or forty-eight hours immediately following the operation.

Periscope Department.

SURGERY.

On the Treatment of Heat Apoplexy. By Surgeon-Major
J. DAVIS, A.M.D.

When stationed at Ferozepore in the hot season of 1872. I was called one night to see a patient seized with heat apoplexy. On arrival at the hospital I found the man (an acclimatized soldier) had under the use of the cold douche become partially conscious, and he gave me to understand, by passing his hand across the part, that he was suffering from a sense of constriction around the lower portion of his chest; his breathing was laborious, and he was vainly endeavoring to take a full inspiration. It occurred to me that this state was due to some oppression of the respiratory nervous centre, and thinking cupping from the nape of the neck might be of use, I sent for the cupping case and applied as many of the smaller-sized cupping glasses as available from the occiput down the nape of the neck in pairs, taking blood with the two uppermost, using a temple scarificator; the glasses were only on a few seconds, when the man said "'tis gone now, sir." He became perfectly sensible, breathing natural and easy instead of laborious and imperfect; he recovered without a bad symptom. In one or two subsequent cases, the patients being fully insensible when the cupping glasses were applied, a similar favorable result took place. I had no further opportunity of testing the value of cupping until last year, when Surgeon-Major Scott kindly allowed me to resort to it with a patient of his, a man of E-8, R.A. On our visiting the patient we found him perfectly insensible; breathing labored and stertorous; the free use of the cold douche failed to arouse him in the slightest degree; he was turned on his side and the glass applied as before described. In

a few seconds, the man was perfectly conscious, able to answer questions, but inclined to sleep. Here, unfortunately, we did not let well alone, but resorted to wet packing, with the object of exciting some action of the skin, which was hot and dry. Coma again set in; the wet packing was at once removed, a free douching given, and the glasses again applied, to our great relief, with a similar favorable result. When we consider how oppression of the respiratory nervous centre interferes with the due performance of respiration, inducing congestion of the lungs (so fatal a complication in heat apoplexy), and how suspended or imperfectly performed respiration gives rise to oppression of the medulla oblongata resulting in coma and death, the importance of relieving the oppressed nervous centre becomes apparent; otherwise a vicious circle becomes established; the oppressed medulla interferes with the due performance of the respiratory act, and the imperfectly purified blood circulating in the brain in its turn further increases the oppression of the already damaged nervous centre.

I should, therefore, be glad if those who may have an opportunity of testing the value of cupping the nape of the neck in cases of heat apoplexy would kindly give it a trial and make known the results.

I may remark that the position in which patient lies in heat apoplexy has, I believe, more or less prevented cupping the nape of the neck being resorted to, and that to turn an insensible man, keeping him steady on his side while the glasses are applied, requires some little management.

To recapitulate, I recommend that in a case of heat apoplexy after the free use of the cold douche the patient should be turned on his side, as many small-sized cupping glasses as possible be applied from the occiput down the nape of the neck in pairs (one on either side of the spinal column) taking blood with the two uppermost. This treat-

ment need not interfere with the use of stimulating enemas, turpentine, &c., which indeed should in all cases be resorted to, so as to unload the lower bowel; neither should the use of the catheter be neglected.

DALHOUSIE, 5th April, 1875. [*Indian Medical Gazette.*]

Spina Bifida, Treated by the Elastic Ligature: Recovery.

The series of cases of so-called spina bifida, or, perhaps more correctly, meningocele, which have lately appeared in the *Journal*, induce me to contribute one which came lately under my care in the Leeds General Infirmary; more especially because I treated it in a different manner from those hitherto published, and the result was not only successful, but much more speedily attained.

M. F., aged 8 weeks, the child of healthy parents (who had previously twice had twins, one only of the four children yet surviving, but none having presented any malformation) was brought to the hospital on January 7th, 1875, on account of a globular bluish-coloured fluctuating tumour in the cervical region, of the size of a tennis-ball, which filled up the hollow between the occiput and the fold corresponding to the tops of the scapulæ. The tumour was pediculated, the pedicle being about the thickness of a man's thumb. The attenuated skin which covered it was too tense to admit of much impulse being felt when the child cried; but its transparency enabled one to recognise the arrangement of blood-vessels characteristic of the cerebro-spinal meninges. On pressing the point of the finger upon the under side of the pedicle, a small hole could be felt corresponding with the deficient arches of two (perhaps only one) of the cervical vertebræ. Here a slight impulse was felt when the child cried. The child was puny, and apparently not possessed of much vitality; but there was no paralysis, nor any deformity of the limbs. The parents were told that it would probably die soon in

any case, and that the only chance for it was the removal of the tumour, but that interference was scarcely justifiable. The child was then taken away, but in a week was brought back, the parents saying they had "considered to have something done" if possible. In the interval, the tumour had increased, and became more turgid and tense, seeming as if it would burst. I accordingly admitted mother and child, and having passed a fine elastic ligature four times tightly round the pedicle, enveloped the tumour in cotton-wool. All the first night, the child was restless, crying, and vomiting the breast-milk. Still it sucked, though the milk was rejected directly. A few drops of brandy in a spoonful of warm water given several times, checked the sickness, and thenceforth it began to thrive. The surface of the tumour soon became vesicated and the fluid contents oozed away, reducing the bulk. On the fourth day, the sac was sloughing. The ligature was partially unwound and tightened up. On the sixth day the pedicle separated, when no hole was visible, nor any oozing of cerebro-spinal fluid from the stump. The sac was examined, and found to be a true meningocele. The wound rapidly healed, and the child gained in weight daily, and was discharged at the end of the fortnight. It may be remarked, that the ossification of the cranial bones was less complete than usual at the end of eleven weeks. The anterior and posterior fontanelles communicated by means of an unclosed sagittal suture, and the sphenoidal sutures were also imperfectly united. When last seen, April 2nd, there was scarcely any scar to be seen, and very slight deficiency in the bones could be felt. The child was plump and healthy, but it had a certain idiotic wandering of the eyes.

EDWARD ATKINSON, M.R.C.P. Eng.,

Surgeon to the Leeds General Infirmary.

—*British Medical Journal.*

Death from Ether Inhalation.

Unfortunately, even ether, it seems, is not to be inhaled always with impunity. A boy, aged 16, was operated on by Dr. Hardie, of Manchester, at the Workhouse Infirmary, on the 3rd of April, 1875. Four drachms of ether were poured on a piece of lint and placed in a folded towel, which was held pretty close to his face. There was no coughing, and but little struggling. He was ready for operation in about four minutes without any more ether. The respiration suddenly ceased, and the pulse at the wrist became imperceptible. The tongue was pulled forward and the poles of a battery applied to the phrenic nerves. Cold water affusion, artificial respiration, and suspension by the feet were tried, without avail. The organs were found healthy. The cavities of the heart were empty. Probably death arose from syncope. Robbin's ether was used.

This is a most untoward event, because it may prevent the growing tendency to use ether instead of chloroform from spreading as it ought. Ether is certainly far safer and ought therefore always to be used instead of chloroform.—*The Doctor.*

The Dangers of Chloroform, etc., and the Nitrite of Amyl.

MR. C. BADER writes to the *Lancet* that, some years ago, when nitrite of amyl was first used at Guy's Hospital, he with Dr. Goodhart, studied its effects, when taken internally, upon the blood-vessels in the healthy optic disc and retina. The effect, he says, is as rapid as it is striking. Three or four seconds after taking three drops of the drug on sugar the blood-vessels of the retina (arteries and veins, but especially the veins) become enormously dilated and gorged with blood, leaving no doubt as to simultaneously existing cerebral hyperæmia, with greatly accelerated circulation of blood.

Lately, after observing upon himself the effects of inhalation of the vapour of the nitrite of amyl, it occurred to Mr. B. that in cases of faintness or of defective breathing or heart's action, while under the influence of an anæsthetic, nitrite of amyl might be of use. He relates three cases to show the encouraging effects of this agent.

CASE 1.—Given a mixture of alcohol, ether, and chloroform. Young man, hydrocephalic, inherited syphilis; iridectomised on both eyes; suddenly became pale, deeply insensible, with pulse and respiration very defective. Lint, with a few (three) drops of nitrite of amyl, was placed over nose and mouth. In two or three seconds a deep inspiration, followed by others, flushed face, quick pulse, and return of sensibility, were observed.

CASE 2.—Given chloroform. A boy, pale, fat, blue lips and cheeks, became suddenly very faint (blue lips, blood turning black, breathing very imperfect. The same quick result, with vomiting, followed the inhalation of the nitrite of amyl (three drops).

CASE 3.—Given chloroform. A middle-aged woman suddenly became blue in the face and stertorous (tongue falling back.) Lint with ten drops of the nitrite of amyl, was placed over mouth and nose. In a few seconds the blueness and stertorous breathing gave way to good colour, regular breathing, and sickness and vomiting, though no food had been given for several hours.

The most striking effects of the nitrite of amyl were the quick restoration of breathing, of a good colour, and the rapid appearance of sickness. It remains to be shown whether injection of this agent will have a still better effect.—*The Doctor.*

Poisoning by Aconite.

DR. J. E. BLAKE, in an interesting article in the *New York Medical Journal*, relates a very important case of poisoning by aconite and chloroform liniment. An hour

after the poison was taken "*no pulse could be detected even in the axilla, and she remained without any trace of pulse for a period of over three hours.*" Nevertheless, Dr. Blake persevered all day and all night with galvanism and artificial respiration, and was rewarded by complete success. He had previously, within half an hour of the poison being swallowed, used the stomach-pump until fluid returned unimpregnated with it; but enough had been absorbed to do deadly work. This patient became early *unconscious*, and remained so for many hours. Yet almost all writers assert that in aconite poisoning *consciousness* continues to the last. Could the chloroform account for the unusual fact? The lady had taken "a little more than a drachm" of the liniment, which consisted of chloroform and tincture of aconite root in equal quantities.—*The Doctor.*

MEDICINE.

The Case of ARTHUR O'CONNOR, by HARRINGTON TUKE,
M.D., F. R. C. P.

The case of Arthur O'Connor is a striking instance of the mistaken views frequently adopted by lawyers as to the value of medical evidence in cases of insanity, and also is an exceptionally strong example of the way in which an advocate, aiming at success, will do his utmost to discredit a medical witness, even although he feels the force of the facts upon which the expert has founded his opinion.

In April 1872, Arthur was arraigned for treason-felony. He had pleaded guilty before the Grand Jury; it is quite clear that he did so under a misapprehension. After some demur on the part of the Court, this plea was allowed to be withdrawn, and the trial proceeded.

The case rested almost entirely upon medical evidence. This was to the effect, that Arthur O'Connor had long been in ill health; his head had received a severe injury; since that time his disposition had changed. There was a strong

hereditary predisposition to insanity; had had a sudden idea to shoot the Queen, but had abandoned that course for one of intimidation. He had intended to attack Her Majesty in St. Paul's Cathedral on the Day of Thanksgiving for the recovery of the Prince of Wales. Turned out of the Cathedral at two in the morning, he had returned at eight; the crowd prevented his reaching it again, or getting near the Royal carriage. Persistently tracking the Queen, he at last got near her Majesty's person, climbing the iron railings of Buckingham Palace; he had time to present a pistol at the Queen's head before her attendants could arrest him. Upon him was found a coherent but insane document, purporting to be a pardon for the Fenian prisoners, and an order for O'Connor's own execution. Other insane documents were produced. These the counsel for the prosecution objected to receive.

I had seen the boy, at the request of his father, about three weeks previously, and found him to be clearly of unsound mind, entertaining insane opinions, that rendered him dangerous to others. In this view of the case I was strongly confirmed by Dr. Maudsley, who examined the boy with me, and also by Dr. Sabben, who saw him afterwards.

The paroxysm of insanity that led to his outrage seems to have lasted about six weeks, leaving him in his normal state of hypochondriasis and almost imbecility, with a tendency to recurrent attacks, in which he becomes dangerous. The subsequent history of his case entirely corroborates this diagnosis. While in Australia, this condition of insane hypochondriasis continued; and as to the state of his mind, it may be enough to mention that though at times fairly well, at others he had paroxysms of absolute mania. Among other eccentricities, he wrote letters to Her Majesty, one of which suggested that he should be made Poet Laureate, in succession to Tennyson. On the occasion of the last Drawing-room, O'Connor was found in an excited condition, waiting, it is supposed, for Her Majesty, near the very same

place at Buckingham Palace in which his former mad assault upon her was committed.

One of the Queen's physicians, and subsequently Dr. Tweedie, saw O'Connor with me before his arrest. The following is his own written account of his symptoms :

“Physical Symptoms. Back like ice ; want of ability to swallow food. Sinking in Stomach. In cold weather one moment—deadly cold, the next burning hot—pains in the head—completely stupified by cold weather—Mental—want of rest—thought continually revolving upon religion. Visions at night of angels hurling men down precipices to die for ever because they had not given up all they loved and go and sell Bibles to the unconverted. Sense that unless I gave up the drama, witty and convivial Society, novel writing, and the world completely I should be everlastingly damned. In a word, one unceasing mania concerning Jesus Christ—the intellect warring with extreme views yet unable to crush the ever revolving mania. Sense of utter want of constitution and energy in comparison to what I ought to be.

“Naturally I am a poet loving the dramatic writers and poet of nature and at one time of my life, ere I became physically debilitated, quite unsusceptible to the present mania, which leaves me no rest day or night. Of late my brain agony has terribly increased I awoke the other night raging to commit suicide ; the idea occurred as a very delightful one, and just as I was about to spring from my bed to act upon it—it passed off and left me trembling all over and utterly horrified.

“Since then my feelings have risen to absolute madness continually and I know very well it is all physical disease, a dead liver or something of the kind. My home is very wretched. it is in fact a hell to me.

“Naturally I am devoured by energy, running in my walk, and in everything else, but when stupified by dyspepsia scarcely able to drag a foot.”

The apparently unanswerable evidence of the insanity of

O'Connor at the time of his outrage upon the Queen, was demolished by the Attorney-General in his cross-examination, mildly described in the *Times* as occasionally "caustic." This was done with great, but, it must now be admitted, with misapplied forensic ability; and, without hearing a single witness for the Crown the jury stopped the case, and found that the prisoner was, and had always been, of sound mind. This, perhaps, also stopped the Attorney-General's speech—fortunately, perhaps, as I was his first subject since he had showered vituperation upon the Tichborne Claimant. The ultimate result of this trial should lead future counsel to pause before they utterly ignore experienced medical testimony, at all events, in the prosecution of cases of treason-felony. They may succeed in gaining a verdict, and for the moment overwhelming the physician with ridicule. But supposing, as time has proved in this case, they are in the wrong, hard labour and stripes, and a short imprisonment as a felon, are not likely to cure insanity; and the course taken by the Attorney-General might have imperilled the safety of the Sovereign. As it is, it has nearly led to her being seriously alarmed by the reappearance of the deranged and wild-looking young man near the royal carriage, in the same place where he had before eluded the watchfulness of her attendants.

Another result of the Attorney-General's "unfortunate" advocacy, (I have to thank him for applying to my evidence and so "teaching me that word") has been that three years have been lost; Arthur O'Connor is at last committed to Hanwell Asylum. Under gentle care and treatment in his first attack, he might have recovered. He may do so now, but his chances are materially lessened.

The characteristic judgment and clemency of Her Majesty led to the remission of the hard labour and whipping to which O'Connor had been sentenced, and also to a shortening of the term of his imprisonment. If this had not been so, a curious incident would have illustrated the mistake of the law advisers of the Crown: some of the Fenian

sympathisers seriously proposed to Mr. O'Connor that a procession should be formed to meet his son on his release, and to escort him with due honour to his father's home. It should be quite understood that Mr. O'Connor was entirely opposed to this absurd proposal. I have never noticed the caustic examination of the Attorney-General; nor shall I now, except upon one point—the one by which the jury, and indeed a large section of the public, were mainly misled. It is deserving of careful attention, because it constantly arises in criminal trials, and was in this of paramount importance.

The Attorney-General contrived to persuade the jury that, if they acted upon the medical evidence, the prisoner would be confined for life in Broadmoor Asylum as a criminal lunatic; whereas, if they took the legal view of the case he would escape with a comparatively trivial and salutary punishment. Now, this was trebly "unfortunate." It was purely an *ad captandum*, argument, and entirely irrelevant to the question of the truth of the evidence, which ought not to be, and was not, in any way biased by consideration of results. It, moreover, offered a temptation to the jury to do the wrong, that right might come of it. I was unfairly taunted with attempting to injure, while I was professing to assist. Now, stripped of forensic tinsel, the plain truth stands thus: the parents of the boy, who was then only 17 years of age, were convinced of his insanity, alarmed at his evidently dangerous condition, and most anxious to have for him any treatment that might permanently cure him; they were respectable people, who had been in a superior position, and they were averse to their son's being branded as a felon; it was, therefore, after anxious consultation with them and their counsel, that the course inveighed against by the Attorney-General was adopted; and, in the event of Arthur O'Connor's recovery at Broadmoor, his parents trusted to the strong evidence of the son's previous good character, and thoroughly relied upon

his being the subject of the never failing clemency of Her Majesty.

I freely forgive Lord Coleridge for his personal attack upon myself ; it was possibly his professional duty to break down, by every possible means a witness hostile to his own views ; but he must surely now deeply deplore his share in a proceeding which consigned a sick and insane boy to degrading punishment, and to a prison instead of an hospital, thus, perhaps, rendering him a hopeless lunatic ; he may also regret that he treated a medical witness with much discourtesy, and ridiculed scientific evidence that has ultimately proved correct ; and he must feel deeply that his unfortunate advocacy very nearly resulted in injury or alarm to the Royal Mistress whom it was his special duty to protect and defend.

I trust the case of Arthur O'Connor may either lead the English Bar to more extended study, or induce them to receive with greater attention and respect the evidence of those who make medical and other scientific investigations the pleasure and business of their lives.—*British Medical Journal*.

M I D W I F E R Y .

On Dr. Copeman's Novel Treatment of Obstinate Vomiting in Pregnancy. By GRAILY HEWITT, M.D., F.R.C.P., Professor of Obstetric Medicine in University College.

I have read the valuable practical paper by my friend Dr. Copeman of Norwich on the subject of the treatment of obstinate sickness in pregnancy, in the *British Medical Journal* for May 15th, with much interest. Dr. Copeman has described a process which he has, he states, accidentally discovered ; viz., the artificial dilatation of the os uteri by the fingers as a cure for obstinate sickness in pregnancy. His results are remarkable, and, stated as they are by a gentleman of his known experience and accuracy, they are

very important. Dr. Copeman, to use his own words, does not "attempt to explain the *modus operandi* of the treatment suggested"; and I desire to offer what I consider to be the true explanation.

In the year 1871, I read a paper before the Obstetrical Society (see *Transactions*, vol. xiii) on the subject of this vomiting in pregnancy. I there enunciated the theory, which I supported by facts and observations, that obstinate vomiting, and indeed ordinary vomiting, in pregnancy are due to a flexed condition of the uterus, the compression of the tissues of the uterus at the seat of the flexion constituting the irritation which gives rise to the vomiting. My view was strongly criticised at the time, and, indeed, Dr. McClintock of Dublin was at the pains shortly afterwards to write and publish a paper, expressly directed to the abolishing of my theory. I have been content to wait until professional opinion was more ripe for discussing the matter calmly, believing firmly that my view expressed four years ago is in all essential particulars correct.

Dr. Copeman's clinical contribution of three cases has a strong and direct bearing on the above question, and the cases offer to my mind strong confirmation of the truth of my original statement. The three cases occurred respectively at six months, two months, and eight months, and in each case the vomiting at once ceased on dilatation of the os with the finger. In the second case, Dr. Copeman says the uterus was "anteverted." He gives no account of its condition in the other two cases, so far as flexion or version is concerned. Now, it is my belief that all three cases were alike; that there was, or had been, acute flexion in each case, and that the dilatation operation of Dr. Copeman effected good and removed the vomiting by reason of its also relieving the cramped condition of the cervix.

On the supposition (which I make as regards two, but which is a fact in one of the cases, according to Dr. Copeman) that there was flexion in all three, the os must have been far back, and, in order to dilate it, it must have been

pulled forwards. The dilatation would and must necessarily imply a righting of the os and lower segment of the uterus, and a consequent unbending of the organ; for I need hardly remark that to draw the os forwards would of necessity tend to tilt the fundus upwards. The uterus, as a whole, is on a pivot; direct pressure on or dragging on one extremity of it will affect the other extremity, and thus the process of dilatation, involving as it does the dragging of the os forwards, would practically aid in the placing of the whole organ in its proper position.

It is customary with obstetric authors to speak of the gravid uterus as being naturally anteverted in the first part of pregnancy. This is a statement which requires important qualification. There are degrees of anteversion. It is one thing for the body of the uterus to be rather easily felt by the touch through the anterior wall of the vagina, as it undoubtedly is in ordinary cases, but it is another for the roof of the vagina to be actually depressed by the abnormal descent of the enlarged body of the uterus when it is anteflexed. In the latter case, the os is always further back than usual, and, in marked cases, the body of the uterus is for the time completely jammed in the pelvis. It is under these circumstances that obstinate vomiting most commonly occurs. Retroflexion is equally operative in a quite analogous way; but I say nothing further on that subject at present, as it does not seem likely that either of Dr. Copeman's cases belonged to that category.

But it may be said, How do you explain the cases in which the vomiting persists as late as the eighth month, which was the fact in an acute flexion in the early part of the pregnancy; as the uterus enlarges (if abortion do not occur), the flexion is in most cases abolished, and the effect of this is, that the sickness generally disappears under such circumstances. But the tissues of the uterus at the seat of the flexion are sometimes left in a diseased state, being stiffened and unduly resistant, and thus the irritation is kept up.

Dr. Copeman's treatment would undoubtedly tend to remove this stiffening and constraint. He himself says, in his paper, "I wondered whether the relief to the vomiting so urgent and threatening to her life could have been effected by my having dilated the os uteri, and thus removed any undue tension which might be producing sympathetic irritation." Undoubtedly, there was undue tension; this tension was, I consider, situated at or near the internal os uteri, which is the situation of flexion under ordinary circumstances; and Dr. Copeman's procedure acted precisely in the way he conjectures. I submit to his careful judgment, and that of others accustomed to consider such problems, whether my explanation of the utility of his process is not the sound one.

I have been accustomed to treat cases of obstinate sickness in pregnancy by elevating the body of the uterus, and I have found that the same immediate good result follows as was observed in Dr. Copeman's cases: viz., the cessation of the sickness; but I am quite prepared to hear that traction of the os uteri forwards will produce a like effect. Both procedures have the same result; the liberation of the tissues of the uterus at the internal os uteri from their cramped compressed condition.

There are other details, but at present I forbear to say more on the subject. [*British Medical Journal.*

UNIVERSITY COLLEGE HOSPITAL.

We observe by recent exchanges that Mr. Erichsen, who has served as surgeon to University College Hospital for the past twenty-five years, has resigned that office. Mr. John Marshall becomes Senior Surgeon, and Mr. Christopher Heath takes charge of Mr. Erichsen's wards, and succeeds him as Holme Professor of Clinical Surgery. The wards lately under the charge of Sir Henry Thompson are assumed by Mr. Berkley Hill, who has, in addition, the surgical ward for children. A vacancy occurs, which is not yet filled; of Assistant Surgeon to the Hospital.

CANADA

Medical and Surgical Journal.

MONTREAL, JULY, 1875.

CITIZENS' PUBLIC HEALTH ASSOCIATION.

Recently an association with the professed object of improving the sanitary condition of the city of Montreal has been organized. It is composed of many of our leading citizens, and we trust that much good will arise out of its deliberations. There is great need of sanitary reform, and we fully expect that some definite scheme will be proposed to improve the assumed unhealthy condition of our city. If the association will earnestly enter into the work of reform, it will bring such pressure on the city authorities as to force them to adopt many needed sanitary improvements. There are many subjects of great moment to the sanitary weal of the citizens which should engage the attention of the Association. Very great good resulted a few years back by the earnest work of a similar association, whose hobby at that time was ventilation and cleanliness, in fact through the personal efforts of a few gentlemen who visited our citizens from house to house, ventilation and whitewash became the rage, which certainly improved the appearance if it did not the sanitary state of many a dingy suburban retreat.

We may remark *en passant* that our water supply is simply abominable. This we think should be a legitimate subject for the sanitary association to discuss. There does not exist in the enormously expensive machinery of our water works, any means of filtration. The citizens are supplied with water reeking with all kinds of animal and

vegetable refuse. If compelled to drink water, it is at least a satisfaction to see that it possesses the appearance of cleanliness, but to be supplied and forced to consume water which is in appearance as well as in verity filthy, is certainly anything but pleasant, and we do not wonder at the custom indulged in by many persons of mixing a drop of stuff with their water to correct it.

The waters of the Ottawa, which flow past our city, come down in a continuous stream several hundred miles from what is termed the height of land, receiving in its course the waters from tributary streams and rivers, so that it drains the entire valley of the Ottawa. In its course downwards it may be said to remove the refuse drainage and sewage of over half a million of people. We do not object to drink this water, although it is the common lavatory and sewer of this vast crowd, provided it is cleansed by filtration. People are probably not aware that at each ablution they strip from their bodies several ounces of its epithelial covering. This is in the form of an impalpable powder; it readily mixes with the water, is suspended in it, and can only be discovered by means of a high microscopic power. Of course we cannot see these scales with the naked eye; nevertheless they are there, and we swallow them and fatten on them, as nothing is lost which can be utilized by Nature. This is not pleasant to contemplate; it is disgusting, though not injurious. There are other substances, however, which are suspended in our water which are far less innocuous, and which give rise to disease and sometimes death.

This is a subject which can be discussed by the "Citizens' Public Health Association" with far greater advantage to the citizens than by silly and questionable remarks concerning our dirty back lanes. The water from our house taps is a kind of animal and vegetable compound, almost as thick as pea-soup, though not quite as savory; and the only means at the disposal of the tenant, with a view to improve its condition, is the use of a private filter. This is a luxury

enjoyed by the man of means ; the poor man is forced to drink the water as it is supplied, and thinks his water tax heavy enough without an additional tax for a filter. Hence as philanthropists and political economists, we should not only advocate but insist on the use of a public filter. It is a matter of fact based on observation, that the drinking water of Montreal is particularly noxious to strangers. Persons visiting our city, either on business or for pleasure, seldom get away without suffering from severe diarrhœa or cholera. It is by no means uncommon for these attacks to prove fatal: We need only to turn to our mortuary statistics to ascertain the fact that cholera, diarrhœa and dysentery are very often fatal during the heat of summer, and this principally amongst the floating population. The citizens themselves occasionally suffer though not in the same degree, as they become as it were accustomed to the impurities. But there are other diseases, equally dangerous to life, which may be produced by the impurity of our water supply—such as Typhoid fever, and the generation of the numerous family of entozoa, so commonly met with in children, and which are occasionally fatal. On looking over the work of Dr. T. Spencer Cobbold, on Helminthology, with reference more particularly to the internal parasites of man, the reader becomes horrified at the numerous forms, and injurious results of taking into our stomachs the ova or the young of various entozoa which live and generate within us.

These affections are known to be preventable, and with regard to cholera, diarrhœa and dysentery they arise frequently from some irritating material taken into the stomach, some substance which the body cannot utilize, and which is therefore cast out. Can we wonder at such a result, when we present as a beverage to our visitors a vile compound of human and animal excrement, fish spawn, vegetable refuse and germs of all sorts. Naturally the stomach rejects it, and what passes into the lower

tracts of the intestinal canal acts as an irritant and is thrown off. Why kill off our children by the host of bowel and other derangements induced by drinking these impurities? Our city parents do not like to assume the expense of a public filter, although we believe the expense would be trifling compared to the ultimate benefit to the fair name of the city. To this might aptly be applied the couplet:

“Kill a man’s family, and he may brook it,
Bat keep your hands out of his breeches pocket.”

“DOWN WITH THE DUST!”

So we cry inwardly when the parching simoon sweeps along our streets, searching every cavity of the face, down to the roots of each individual hair, and into every fold of our garments.—Cry inwardly we say, for who would venture to open his mouth as the excrement laden cloud pours upon him? Bleared and half closed eyes, gritty fingers, and discoloured pocket handkerchiefs testify to the ordeal to which we have been exposed when we “take our walks abroad.” “Down with the dust!” we say again, this time aloud, when we have mopped away as much of the deposit as we can with a liberal allowance of the unfiltered element with which we are supplied, and which it does not do to examine with too critical an eye.

Unfortunately our City Fathers appear to be unable to come “down with the dust” in another sense, and exorcise the demon which torments us. Now that the Road Committee have resigned their scavenging functions to the Board of Health, who are supposed to have absolute power to appropriate “dust” for sanitary purposes we look for something decided. It is stated that all the watercarts are to muster and engage in the struggle. We sincerely hope it may be so.

The irritating nature of the dust in this city can be borne witness to by every resident. Perhaps the organ most exposed to its baneful influence is the eye, one of

the most delicate of the structures of the human body, and upon the integrity of which the bread of most of our fellow-citizens, depends. The dust laden with fine particles, many of them angular, makes its way beneath the lids, and by friction causes severe irritation. Irritation like this repeated every day for a period of three or four months in the year will surely bear fruit at last, in permanent weakening of the organ.

The delicate mucous membrane of the nose also suffers. Such of us as can walk through the streets with our mouths firmly closed will not be likely to suffer so much from the inhalation of the powder, as children who do not know the danger, and who while at play almost constantly keep the mouth open. The dust, laden with deleterious material lodges on the sensitive mucous membrane of their air-passages, and causes in many instances much uneasiness and cough, while it cannot be doubted that it is a vehicle for numerous disease germs, which, lodging on the mucous membrane, find a suitable soil in which to germinate and multiply. Not only the germs of fever, but also those of entozoa may be thus disseminated, although for the latter we need scarcely look farther than our drinking water.

The breezes that we otherwise would hail as cooling and beneficial, we look upon with dread. May we not often see a puff of wind turning a corner, see it not in the sense that pigs are said to see the wind, but see it in its effects, the cloud of dust which it carries with it, gathering strength, (and dust), as it bears down upon us, until we fairly have to turn our backs to escape the murderous attack? Not only are we exposed to the limestone shower laden with its quota of disease germs; but we also come in for a share of finely divided animal excrement. We confess to a liking in a general way for the lower animals, and the odour of a cow-stable is reputed to be beneficial in some diseases, notably in consumption, but we have a decided objection to fæcal inhalations of the kind to which we are daily treated. As we belong to the

class which is habitually clad in sombre colored garments, we say nothing of the damage done to the more delicate fabrics for summer wear, by the searching and penetrating material which floats about in the atmosphere, but were we of the softer sex we think that we could make out a strong plea for pure air and less dust on that score alone.

In conclusion, we sincerely hope that the nuisance may soon be abated by the proper means at the command of the Sanitary authorities, and that we may before long hear Montreal spoken of as one of the cleanest, as it already is as one of the most prosperous cities on the American continent.

A SMALL POX HOSPITAL.

We publish below an excellent letter from the columns of the MONTREAL GAZETTE, and from the pen of Peter Redpath, Esq., President of the Montreal General Hospital. Coming from such a source we trust it will have due weight in the City Council. Mr. Redpath shows clearly the absurdity, we might say the insanity, on the part of the city authorities in attempting to shove off the responsibility of establishing a small-pox hospital.

The emergency has to be grappled with, and if we as a city, honestly desire to improve our sanitary condition, as touching infectious diseases, we must assume without further delay all reasonable responsibility in the premises. This may be attended with considerable outlay which must be met, and if need be, by a special tax for hospital purposes. We cannot but express surprise that a return to the scheme of having two separate hospitals should have been mooted. A hospital for the purpose of aiding in stamping out a highly infectious disease ought to be under the government of the municipal body. It is the Corporation of the city to whom the citizens look for the enforcement of rules and regulations which are deemed advisable for the general welfare of the community. If the

representatives of the citizens are unwilling to carry out necessary sanitary measures, the government of the country should be memorialized to step in and do the work or have it done at the cost and charges of the city. We should suppose the Provincial Legislature has this power, and if the citizens of Montreal cannot succeed in obtaining from the city council common-sense views on this important subject they had better at once ignore the very existence of mayor and aldermen and go to a higher power for redress.

In the last number of our journal we copied from a Boston paper a statement to the effect that during the year ending 1st May, 1875, no case of small-pox had been recorded as occurring in the city of Boston, which was the first occasion that such a statement could be made for the past twenty years. On reference to the report of the Trustees of the City Hospital, Boston, for the year 1873—an institution which is supported at an annual cost of over \$100,000 by the city authorities of Boston—it will be found that from April to August of that year, during an epidemic of small-pox, there was disbursed for the maintenance of the small-pox hospital \$10,219.93. Who will in all honesty say that that amount was not well spent when it resulted in the proud announcement a few months later that “not a single case of small-pox was recorded as occurring in the city during the past twelve months?”

SMALL-POX HOSPITALS.

To the Editor of the Gazette:

DEAR SIR,—Public attention has been drawn to the necessity for increased accommodation for small-pox patients, but nothing permanent has been done to meet the emergency, apparently because of uncertainty as to the best course to pursue.

The City Council has offered to the ladies of the Hotel Dieu and to the Montreal General Hospital the sum of \$25,000 each, with the conditions of their erecting isolated

buildings for the purpose, with provision in each for fifty patients at a time, and that they should respectively assume the whole cost of subsequent maintenance.

With the view of helping to avoid mistakes in accomplishing the object, I venture to express the opinion that even if this proposition be accepted and acted upon by those to whom it is addressed, the end will not be adequately attained.

The number of small-pox cases existing at one time during the last two or three winters must, I think, have been much more than one hundred, and if, as I believe, it be intended to remove all cases to the hospitals, the responsibility of providing for the excess over one hundred would still rest with the City Council.

Among many considerations which the question involves, I respectfully submit:—

1st. That the best authorities on the construction of hospitals maintain that the ground upon which an hospital is erected should afford an area of not less than about five hundred and forty square feet to each patient. Assuming that more is not required for infectious diseases, a building adapted for fifty patients should stand on an area of about twenty-seven thousand square feet. I am strongly of opinion that justice would not be done either to the patients or to the community if a more limited site were chosen.

2nd. The cubical air space provided for each patient should certainly not be less than fifteen hundred feet; two thousand feet would be much better. This estimate demands from seventy-five thousand to one hundred thousand cubic feet of ward accommodation for fifty patients. The offices, service, and administration would probably require at least half as much more, which is a smaller proportion than the space applied to these purposes in an ordinary hospital.

3. The heating and ventilating arrangements should be on the best possible plans, especially as the resources of the hospital would be most taxed during the winter.

It is obvious that if a building were constructed on the

basis of the requirements I have stated, in the most economical manner that could be devised, it would absorb a large proportion, if not the whole, of the proposed grant, leaving nothing for the cost of ground or for subsequent maintenance. The possibility of a future demand for additional help must, therefore, enter into your calculation.

I have no possible knowledge on the subject, but I have the impression that hospitals for infectious diseases are usually controlled by the municipal authorities. I observe in a newspaper accidentally beside me, an advertisement in which the Sanitary committee of the City Council of Halifax, N.S., asks for tenders for the erection there of an hospital for contagious diseases. I can readily understand why the duty should be distasteful to the City Council, but it is not the less a duty. You have made an experiment and found it an expensive one, but it has been made under circumstances which did not allow time for economical arrangements. There is no good reason why an hospital for small-pox patients should not be carried on as economically by the City Council as by any other corporation. The responsibility of it should rest with those who by a vigorous and judicious administration of their own laws, can greatly diminish, if not entirely extirpate the disease, existence of which is attended with such great expense as well as such danger to the citizens.

I believe that a civic hospital constructed on a suitable site, and on principles which I have partly indicated, would best meet the requirements of the case, and would before long be regarded with favor by the whole community.

I am, dear Sir,

Yours, very truly,

PETER REDPATH.

Montreal, 17th June, 1875.

BOWKER VS. BEERS FOR LIBEL.

This case has occupied the attention of the Courts for some years past, and is we believe finally settled before the Court of Appeal.

It arose out of an article from the pen of Mr. Bowker, in which that gentleman condemned the use of amalgam and mercury paste for filling teeth. This article we published in our Journal in the number for January, 1870, being the sixth vol. Canada Medical Journal. Mr. Beers replied in an article to which we gave insertion in the following No. for April. Subsequently Mr. Beers published in his own Journal, "The Canada Journal of Dental Science," an article in which he accused Mr. Bowker of making use of the amalgam of mercury, in his own practice, for the filling of teeth; and out of this accusation arose the action in question. In the course of the trial very conflicting evidence was given touching the question of the possible injury to be done by the use of amalgam paste for filling the cavities in carious teeth. This was a side issue raised by the defendant, and had nothing whatever to do with the question before the Court, a ruling which is evidenced in the judgment which we give below, taken from the GAZETTE:

COURT OF APPEALS—JUDGMENT.

Present: Chief Justice DORION, and Justices MONK, TASCHEREAU, RAMSAY and SANBORN.

W. G. Beers (defendant in Court below), Appellant, and H. M. Bowker (plaintiff below), Respondent.

TASCHEREAU, J., dissenting.—The respondent sued the appellant for libel contained in an article published in the *Canada Journal of Dental Science*. The article in question charged the respondent with having used professionally as a dentist a certain amalgam mineral paste for filling teeth. The plea of Beers was that Bowker had previously in an article published by him in the *Canada Medical Journal*, stated that the use of amalgam, a pernicious compound, was encouraged by the Dental Association of Quebec, of which Beers was a member. I would reverse the judgment

which condemned Beers to pay \$10 damages, and put the parties out of Court, leaving each to pay his own costs.

DORION, C. J.—We have not to decide whether the amalgam was pernicious or not. The question is whether Beers did not libel Bowker in accusing him of using a substance which the latter had asserted to be injurious. The charge of using it is not proved, and under the circumstances there would be an injustice in putting the parties out of Court. The judgment must be confirmed.

RAMSAY, J.—Dr. Bowker is a very fortunate litigant, because by writing in a very lively style he laid himself open to an answer. But the answer was too severe, for it made out that Bowker was using a substance which, by his own confession, was an injurious poison, to fill teeth with. Bowker had to defend himself from this charge. There was no plea of compensation fyled, only one of provocation. But the Court says: You went further than the provocation; we have not to weigh two injuries; therefore, we have to say that some damages are due. The Court has fixed the damages at \$10, and I think that is enough, considering the excessive sharpness of Dr. Bowker's article on a scientific question and one of great nicety.

SANBORN, J.—I don't see any question of compensation here at all: Bowker's charge was against a body of men, not against an individual. If you accused all Irishmen of being bad, an individual could not bring an action for that. Beers answered by a charge that amounted to this: that Bowker was an impostor because he was guilty of using the very same poisonous amalgam that he had condemned. that was the real gist of the charge. Every one knows that there is a good deal of disputing between gentlemen connected with the healing art; probably because there are no umpires in that profession. In the legal profession there are the judges to decide, and they become the objects of criticism.

Judgment confirmed, Taschereau, J. dissenting.

Messrs. Carter & Keller for the appellant, and Messrs. A. & W. Robertson for the respondent.

PUBLIC HEALTH MAGAZINE.

We have received the first number of a magazine, with the above title, a periodical which is destined, we hope, to do much good in the community. Its mission is educational, and if conducted in a proper spirit so as to call the attention of the masses to all subjects bearing on the laws of health, we doubt not that it will be a success, and take rank as "an authority" in Sanitary science to which it aspires.

This journal is edited by Dr. George A. Baynes, a gentleman who has already given evidence of his devotion to Sanitary subjects by a very excellent course of popular lectures delivered by him during the past winter, as also by a brochure on the disposal of the dead, which is worth reading. We wish the periodical every success; it is very neatly gotten up, and is issued from the printing establishment of John Dougall & Son.

MEDICAL OFFICERS IN THE MERCANTILE MARINE.

We notice that a return has been made to the British House of Commons on the motion of Captain Bedford Pim, of the names, ages and nationalities of persons who have served, during the past two years, as surgeons in the merchant service. The number returned was 224, none of whom were registered in the United Kingdom. We suppose that some of these gentlemen are Canadians as it is customary for the owners of Canadian steamships to occasionally appoint a young Canadian Physician and Surgeon to fill the post. We may state that one of the necessary requirements for that position is that the applicant must be registered in the Province from whence he hails—and in fact no appointment is made without the recommendation of the heads of some of our educational bodies. The owners are particularly careful in the selection of Surgeons, more especially in passenger ships, and we have no hesitation in saying that those surgeons from Canada to be met with in any of our Canadian lines of steamships are thoroughly qualified were and are registered in their own province,