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CANADA

MEDICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Excision of the Elbow Joint, for Caries, the result of an injury in a man 72 years of age. By JOHN REDDY, M.D., L.R.C.S.I., &c. Physician to the Montreal General Hospital, &c., &c.

James Foley, aged 72, a native of Ireland, of healthy and youthful appearance for his age, was admitted into the Montreal General Hospital, on the 1st June, 1871.

He applied for relief on account of a running sore, swelling and stiffness of his right elbow-joint, which he stated was the result of an accident that had occurred two years previously, and from which time he had gradually lost the use of the joint, being unable to use his arm, it being at times most painful, especially whenever he used his hand, or follow his occupation, which was that of labourer. About thirteen months ago a swelling occurred on the upper and outer part of the joint, which was very painful, and after a few weeks burst, from which time to the present a thin matter flowed; a few weeks afterwards a second swelling occurred at the inner condyle, attended with similar consequences, the member became so swollen and painful that he sought admission into hospital.

Present Appearance—Joint swollen to nearly twice the natural size, of a reddish dark colour, hot and painful to the touch, can raise his arm from the shoulder, and move his fingers without producing pain, but the slightest flexion, extension, or lateral movement of the joint, always caused him much suffering and distress. The two apertures described above exist and discharge a thin sero-purulent non-offensive matter.

On passing a probe through the outer sinus into the joint, the roughened head of the ulna can readily be felt, also on exploring the inner one the bare and roughened end of humerus is easily detected, showing that little can be expected from palliative treatment.

On account of the heat, swelling, and rather œdematous state of the part, I ordered a lotion of hot acetate of lead and opium to be applied to allay pain. the arm to be raised upon a pillow and suitably positioned. From this treatment considerable relief followed.

10th June—Nothing in particular required to be noted till this day, as the pain and swelling have considerably abated, but now on the inner side of the joint below the condyle, and present sinus on same side, a small swelling has commenced, which is evidently an abscess forming. A hot linseed poultice was ordered to be applied.

12th—Swelling above mentioned has increased so much that an opening was made to-day, and exit given to a few ounces of pus, much to his relief.

15th—From last date to the present the pain and uneasiness have been much less, and the swelling so far reduced, that I now begin to hope some operative measure may soon be adopted towards his permanent relief.

16th—A consultation being held, it was deemed advisable to perform excision of the joint, which was this day performed in the following manner. The patient partly on his face with the back of the arm towards me, an incision was made along the inner edge of the humerus and ulna external to the nerve, a second incision at right angles to that already, was made outwards across centre of the joint which formed a T. Exposing the joint fully, the olecranon was first removed, then the articulating ends of the radius and ulna, to the extent of about $\frac{3}{4}$ -inch, and lastly about an inch of the end of the humerus. Two small vessels only required to be ligatured. The flaps were then adjusted with silver sutures, the arm partly flexed, and a loose splint applied. The patient was then removed to bed and had the limb placed upon a pillow, and at the end of an hour he appeared tolerably easy and free from pain. The articulating ends of the bones were quite denuded of cartilage, and were very rough and irregular, giving evidence of long standing disease.

17th—Pulse 84. Morning, temp. 102 2-5ths. Evening 102 Fh. Slept most part of the night, felt the arm very hot but free from pain.

18th—Pulse 84. Temp. 98 Fh. Arm dressed and is doing very well.

22nd—Pulse 84. Temp 99 2-5ths. Arm free from pain, but a slight discharge has commenced from the upper end of the longitudinal incision, with every indication of a small slough forming.

24th—Pulse 84. Temp. 99 Fh. Has suffered pain in the upper

end of incision mentioned in last report. A slough the size of a florin has formed, through which some dead cellular tissue is protruding.

Ordered a mild aperient and 4 ozs. wine, and linseed meal poultice over sloughing part.

27th—Pulse 84. Temp. 99. Doing well since last report, and sleeps well at night. The slough has come away, but shreds of dead cellular tissue are occasionally discharged from the part, which is daily injected with carbolic acid lotion 1 to 40, and a linseed poultice constantly applied.

30th—Pulse 84. Temp. normal. All the sutures removed to-day; dead cellular tissue continues to come from the slough: in every other way patient doing well.

July 3rd—Pulse 100. Temp 90. The splint which had been loosely applied from the day of operation was removed to-day, an abscess is forming on the inside of the joint, near where a sinus had existed. Linseed poultice ordered. In every other respect patient doing well.

5th—Abscess burst to-day, and discharged quite a quantity of pus. Patient's health very good and improving.

12th—Able to be out of bed, and passive motion commenced which is well borne, discharge from abscess slight, and where the slough has come away on the 24th, rapidly healing up. The Edinburgh red wash has been applied to it for some days past, as well as the daily injection of the carbolic acid lotion.

22nd—Discharge very much diminished since last note, joint can be freely moved and is doing well, he makes quite a good attempt at flexing his arm. He had a slight attack of diarrhoea a few days ago, from which he is now quite recovered; he is able to walk about the hospital and grounds, and is doing favourably in every respect.

22nd August—I shall pass over the daily notes made since this day month, by stating that the small sinus still exists where the slough had formed, but no dead bone could be at any time discovered. Passive motion has been resumed and regularly made, and it is quite gratifying to have to record the amount of mobility that has been acquired; he cannot however flex the fore-arm, so as to bring it up to his head as yet, nevertheless he can use it in a variety of ways.

22nd September—Since last report he has not progressed so favourably, having made too free in going about the hospital grounds. He has been laid up for three weeks with rheumatic pains, and during that period passive motion had to be desisted

from; he is now so much better that it has again been resumed. Discharge from sinus very trifling.

3rd October—He leaves hospital to-day at the request of his friends, with a tolerably useful arm. He can pronate and supinate the fore-arm, and partly elevate it about half way to his head. A slight watery discharge occasionally continues from sinus.

I am indebted to Mr. Hugh J. Young, for copious notes of the above case.

On the 27th December I visited him at his home, where I found him in bed, having been confined there a few weeks with an attack of bronchitis, from which he appears to be rapidly recovering. On examining the joint (which was perfectly healed) I was much pleased to find that he enjoyed a tolerably fair use of the arm, complete flexion being the most deficient movement, but considering the many drawbacks that have occurred since the operation was performed, I nevertheless consider that the case has turned out quite as well as could be expected.

The record of the above case establishes a very important fact, I should say, viz, that advanced age does not prove so great a barrier as is generally supposed to excision of the elbow-joint. After a diligent search kindly made for me, by Professor Fenwick, of McGill College University, and by myself, of all the recorded cases (at all events within my reach,) that have been published in periodicals or standard works, this it would appear is the first case in which it was performed at such an advanced age, and it certainly has proved a decided success. The only two published cases that I could find, where it had been performed late in life, were first by Mr. Erichsen, at the age of 63, issue successful. Second by Mr. Beckerslette, of Liverpool, age 64, when the patient died of exhaustion on the 26th day.

MONTREAL, 5th January, 1872.

London Practice, by JAMES PERRIGO, A.M., M.D., M. R. C. S. Eng.,
Demonstrator of Anatomy, University of Bishops College.

For a person who has just graduated from any of our Canadian Medical Colleges, and who is desirous of increasing his clinical knowledge, and who at the same time may wish to devote some attention to specialities, London, above all cities, affords the most opportunities. It has a population of three and a half million, almost equal to our Dominion, and possessed of hospitals, both general and special of every description.

If the graduate have been a diligent student, a steady walker of the hospital wards, and also a good practical observer, he will be in a position to derive all the greater benefit from such a visit. He will be certain in meeting with a kind reception at any hospital. He will have to be ready to be cross-examined on the cause and treatment of diseases in Canada, habits and customs of the people generally.

Canadian students, as a rule, are much better workers than the English, and are, considering the difference of advantages and opportunities, almost their equals in clinics.

It is in the special hospitals, however, wherein the advantages of a visit to London is apparent. The General hospitals also have some of their wards for special diseases, and all of them are divided into medical and surgical sides.

There are fourteen general hospitals in London, eleven of which have schools attached to them. They are:—Guy's, holding 580 beds, the London City, holding over 300, St. Bartholomew's with 630, the Middlesex with 350, and the new St. Thomas hospital, which is, without doubt, the finest hospital in the world at the present time. It is built on the detached principle and consists of seven separate buildings, connected by corridors. The school is also in a separate building. Each building will hold about 80-100 beds. Then, there are King's College Hospital, with 175 beds, University College Hospital with the same number, St. George's hospital with 300 beds. Charing-Cross with 160 beds, Westminster with 190 and St. Mary's Hospital. All these have schools connected with them. There are also the London Northern Hospital, the West London and the Royal Free Hospital that have no schools attached to them. Each of these hospitals has its own operating day, in the week and some of them have two.

A student need lose no spare time in his hands; he can keep himself quite busy whether he devotes his attention to medicine or surgery.

As to the special hospitals; there is hardly an organ in the body that suffers diseases but what has an hospital especially for it. There are two pretty large hospitals for the eyes: Moorfields holding 90 beds and the Royal Westminster holding 46. There are two for diseases of females, the Samaritan and the Solo-Square hospitals. At these two places, children are also prescribed for in the out-door room. There are two also for children, one, the best is in Great Ormond street, and at present, holds 76 beds, but this last summer they have commenced to build a new one which will hold 200 beds. The other childrens hospital is in the Chelsea district. At the first, full clinical remarks are always made at the

bed side. Some of the general hospitals have wards for children.

For chest diseases, there is the Brompton hospital, and right opposite to it in the same street, is the Brompton Cancer Hospital with 56 beds. Skin diseases are attended to in the Blackfriars Road Hospital, and there is another in Leicester Square, but of not much importance.

Syphilis is well cared for in the Dean Lock Hospital and there are others as well, but I did not attend them and consequently know little of them. In Berners street, Sir Henry Thomson has a building that he devotes to patients suffering from stone. Deformities, club-feet, etc., are taken in at the Royal Orthopædic hospital in Oxford street, and St. George's Hospital has a department under Mr. Brodhurst for the same purpose. In addition there is an hospital for epilepsy and diseases of the nervous system.

Beside all these, there are innumerable dispensaries and branch institutions of more or less importance, but a good many of which have been started as much for the benefit of the medical attendants as for the poor.

All the hospitals with schools attached have museums, some of them, second to none. Those of the Collège of Surgeons, St. Bartholomew's and Guy's cannot be surpassed. They are complete in almost every respect.

In addition to all these means of gaining information, there are the Pathological, Clinical, Medical, Medico-Chirurgical, and Obstetrical societies, that hold meetings every month, where papers are read and discussions entered into by the first men of the day. Strangers are always admitted and welcomed when in company with any of the members and are frequently invited to take part in the discussions.

The visitor after arriving in London, will feel like a "fish out of water," particularly, if it be his first visit. He will hardly know what to do first, what hospitals to visit, &c. If he should intend to go up for examination at the Collège of Surgeons, he had better see Mr. Trimmer, the secretary, who has his office in the Collège building, Lincoln's Inn Fields. There, he will have his tickets examined and receive advice as to his future movements.

Four complete years of study are necessary. Men who have the B. A. degree will escape the preliminary examination, also those who have passed the Matriculation examination of McGill, Kingston, Cobourg, and Toronto.

No man well up in his work need be doubtful of the examinations. They are thoroughly searching and eminently practical.

In the Collège of Surgeons, anatomy forms a large portion of the

examinations. The questions are all useful and very seldom do they attempt to confuse a man. The examinations are written and oral. In the written, six questions are given, and three hours allowed, from one to four o'clock, to answer them. No man is allowed to leave the room, before the expiration of the time, unless he has answered all. The room is large and has a large gallery around it. It gives room for one hundred students to write in. There is no possibility of cribbing, as there are two porters in the body of the room and two in the galleries, so that the slightest movement is noticed.

The fee for the diploma of the College of Surgeons is £22.

Persons holding the M. D. degree, are exempt from examination in medicine and *Materia-Medica*. The final examination is divided into two parts, theoretical and practical. In the practical, the same room which was used for the written examination is heated to a higher degree, and men are there naked lying on tables.

Instruments, bandages, splints and all surgical appliances are arranged ready for use. Upon these men, you have to take colored chalk and mark the line of incision for tying arteries, stating at the same time, what structures have to be cut through. Bandages have to be put on and imaginary fractures set. You are given twenty minutes for this work.

In my next letter, I shall be able to give some interesting items of the practice in the different hospitals I visited.

Hospital Reports.

SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL
GENERAL HOSPITAL, UNDER THE CARE OF G. E. FENWICK, M.D.

Case 8—Gangrene of both Feet followed by Amputation. Reported
by JOHN MORRISON, M.A.

Michael McM., æt 40, height 5 feet 7 inches, weight 130 lbs. Small spare form, circulation languid, torpidity of all the functions, both of body and mind, temperate habits, never had any sickness, occupation labourer.

Came to this country on the 5th November, 1871, and on the 15th day of the same month, lay out on the road side all night, and had both feet frozen.

It was our first snow-storm, and although the night was cold for that season of the year, yet it is more than probable, that the

frost bite was not due so much to the intensity of the cold, as it was to the low vitality of the extremities, along with the feeble resisting powers of the individual; also the peculiar difficulties under which he was labouring at the time—such as tight boots, wet feet, a stranger in a strange land, unable to find a friend who would give him a night's shelter, would in all probability have not a little to do in bringing about such a result.

On the 16th he wandered about the city trying to get employment, he had great difficulty in walking, as his feet were numb; that evening he fell into the hands of some Good Samaritan, who took him to the House of Refuge.

On the 17th he was admitted into the Montreal General Hospital. On examination the feet were found to be very cold, presenting a dark blue mottled appearance, no pulsation could be felt in any of the arteries of the feet, no feeling when pricked with a pin except near the toes.

The feet were well covered with cotton wool and loosely bandaged. He was put on half diet with a pint of beef tea.

19th—The legs from the knees down to near the ankles were red, hot, swollen and painful; feet still cold, no pain felt in them.

20th—Phlyctenæ near the ankles, great tenderness and pain along the posterior tibial and peroneal nerves.

21st—Some constitutional disturbance. Pulse 109. Resp. 26 Temp. 101 2-5ths.

R—Quina Sulph. gr. xvi.
Potass. Chlor. ʒi. . .
Tr. Ferri Perchlor ʒij.
Aqua ad ʒvi

Sg. A tablespoonful every three hours.

26th—Darting pains in the feet, feels sick. Pulse 128. Resp. 28. Temp. 103 1-10th. Numbness of the hands, twitching of the muscles.

27th—Pulse 108. Resp. 24. Temp. 102. Feet give off an offensive smell, sloughing of the skin covering the blisters. Applied a lotion of Chloralum 1 to 40.

December 1st—Line of demarcation appearing on both legs, about two inches above the ankles. Pulse 104. Temp. 99.

3rd—Pulse 86, small, weak and irregular. Temp. 99½. Ordered whiskey ʒiv daily.

6th—The line of demarcation being well marked, and the patient's strength, by the administration of tonics, nourishing food, &c., being so far recuperated as to stand an operation, Dr. Fenwick decided to amputate. Simultaneous amputation of both legs was performed. Dr. Scott operating on the left leg, and Dr. Fenwick on the right.

The left leg was amputated a little above the middle third; the posterior flap was found to be the seat of a dissecting abscess, which had extended upwards from the foot, so that a portion of the muscles of the flap had to be removed, but notwithstanding this delay, the despatch with which the limb was amputated, was almost incredible; putting one in mind of the days when chloroform was not known—when speedy manipulations gave the surgeon his prestige.

The right leg was amputated one and a half inches lower down; two dissecting abscesses were found burrowing in the muscles of the calf of the leg, and extending into the lower flap. Very great interest was shown by the members of the Clinical Class, in watching the results of these two operations.

The arteries being ligatured, the wounds were washed with carbolic acid lotion 1 to 40, and their edges brought together by metallic sutures, and dressed with carbolic lotion 1 to 40.

7th—Did not sleep well last night, although a draught was given at 10 P.M. Pulse 130. Resp. 28. Temperature 102. Profuse perspiration.

8th—Feels better, slept last night. Pulse 116. Temperature 101 2-5ths.

9th—Stumps dressed to-day. Small slough appearing on the left stump, about the centre of the lower flap. Right stump looks well; but the skin over the upper portion of the end of the bone is very white, as if it had been on the stretch for some time. The lower flap was supported by a piece of plaster to remove this tension.

10th—Left stump, slough extending, sutures removed, and a poultice applied. Right stump looks well, but the white spot looks as if it had lost its vitality. Looks more lively to-day. Ordered—Wine 6 ozs., and Mist. Ferri et Quinae.

12th—Pulse 88. Temp. 88½. Shooting pains in both stumps, appetite improving. Right stump is uniting well, small slough in the place of the white spot. Left stump,—slough is extending.

20th—Upper part of the bone is protruding in the right leg, the small slough having separated. The edges of the wound almost completely united. The whole of the posterior flap of the left leg has sloughed away. Instead of the poultice, carbolic lotion 1 to 40.

25th—Left stump is granulating. The small piece of bone that protrudes in the right leg is turning black, but the edges of the flaps have firmly united.

January 6th, 1872.—Left stump granulating nicely. In other respects the patient is well.

Case 9—Stricture of the Urethra. Perineal Section. Cure. Reported by Mr. ROBERT HOWARD.

J. C., *æt* 25, a native of England, steward on ship board, was admitted into the Montreal General Hospital on the 23rd October 1871, suffering from Stricture of the Urethra.

History—Has led a dissipated life, drank hard for a considerable time, which has had an injurious effect on his general health, and he presents a care worn appearance, is pale and haggard, and looks as if suffering from organic disease of his kidneys. About eight years ago he contracted a chancre and gonorrhœa, this continued for over a month, and was followed by a gleet discharge from which he has never wholly recovered. Eighteen months since he suffered from great pain in the region of the kidneys, and he noticed that he had to strain considerably before making water. He was treated actively and obtained relief. Six months ago he again suffered from pain in the region of the kidneys, the stream on passing water was small, and the bladder was evacuated with much difficulty. He continued in this state until admitted into hospital. Upon examination it was found that an exceedingly tight stricture existed in the spongy portion of the urethra about four inches from the meatus. The treatment by dilatation was practised but without any relief, as the patient suffered from rigors whenever an instrument was introduced; under these circumstances Dr. Fenwick decided on performing the operation of perineal section.

November 11th—The patient having been previously prepared, was placed in the usual lithotomy position and chloroform administered, a grooved staff was then passed down to the stricture, an incision of about two and a half inches in length was made in the raphé, and the urethra opened in front of the stricture. A fine director was then carried through the constriction backwards towards the bladder, and the stricture slit up from behind forwards, the grooved staff then passed readily into the bladder. As the urethra was naturally small a No. 7 catheter was then substituted for the staff, and tied in the usual way, and the patient removed to bed.

12th—Did not sleep very well, although a draught of morphia was given him at bed time, pulse 92; tongue furred, looks anxious, complains of pain in the part. Catheter allowed to remain in, the urine is coming away freely through the instrument.

13th—Passed a restless night; pulse 110; the morphia draught which was repeated at bed time did not act very well. He had a rigor which lasted about half an hour. The urine passed nearly

wholly through the wound by the side of the instrument, a stillette was passed into the catheter to clear away any mucus or blood clots which might be there, which had the desired effect, and urine again flowed through the instrument. The bowels having not acted since the operation, a black draught was administered.

14th—Pulse 130; looks pale and anxious, has a tendency to a return of the rigor, so that the catheter was removed and a No. 8 size was introduced, and he was instructed to remove it at the end of an hour. Barley water was ordered as a drink, and a diet of beef-tea and milk enjoined.

15th—Much about the same as at last report, pulse 120: tongue coated, complains of pain in passing water, the catheter could not be wholly passed into the bladder, a No. 6 was introduced through the stricture and left in for two hours, the wound looking well and granulating.

16th—The pulse had fallen to 110; his draught of morphia acted better last night, and he had a good sleep from which he awakened refreshed. Considerable urine passes through the wound, his tongue is furred and inclined to dryness. In other respects expresses himself as feeling comfortable.

17th—Still complains of not feeling well, there is considerable irritation in the bladder; pulse 108; tongue furred, complains of thirst, bowels constipated, a No. 6 catheter was passed and retained in for three hours.

18th—Looks better to-day, pulse 96; the wound is all but healed, still urine passes occasionally through the wound, more especially when he forces. A No. 6 instrument was inserted and left in for two hours, as the bowels had not acted, a dose of castor oil was ordered.

19th—Seemed to-day not so well, complained of feeling very weak, pulse was weak and irregular, about 100; as the oil had not operated an injection of tepid water was ordered, also 4 ozs. of wine.

20th—Feels relieved though weak, slept well without a draught of morphia; pulse 94; a No. 6 catheter was passed without difficulty.

22nd—Slept well, nearly all the urine passes by the natural passage, the general symptoms are improving, the incision is all but closed.

From this date he continued to improve, the wound closed entirely. The catheter was passed every second or third day, and he left the hospital early in December, with instructions to return every few days for the purpose of having a catheter passed.

Case 10—Urinary Infiltration resulting from Stricture of the Urethra. Sloughing of the greater portion of the Scrotum. Subsequent Perineal Section. Recovery. Reported by Mr. G. A. STARK.

N. D., æt 30, a French Canadian, was admitted into the Montreal General Hospital on the evening of the 30th of September, 1871.

October 1st—Upon examination by the attending surgeon, Dr. Fenwick, the following was his condition. The scrotum was enormously distended, the left lateral half presented a yellowish grey appearance from the existence of an actually formed slough. The perineum was distended and tender to the touch, the entire hypogastric and both iliac regions presented a dusky red, somewhat livid appearance, and looked as though the vitality of the integument was destroyed in several places. He had not been able to pass water for two or three weeks without much straining, and then only a few drops at a time flowed away. He complained of a burning pain, there was much distress and anxiety, and he was so weak and confused that he could not give a very lucid account of the commencement of the attack. It was ascertained that he had suffered from stricture of the urethra for several years, this had gradually come on after gonorrhœa. For several months past he noticed that the stream became gradually smaller. Two weeks ago he applied to this hospital as an out-door patient, complaining of bladder irritation, for which he received a bottle of medicine; no examination of the condition of the urethra was made at that time.

He states that when he applied for relief the perineum was swollen, and that he had to strain considerably to relieve his bladder. From this time the scrotum and perineum continued to swell, and a day or two before he applied for admission he suffered from rigors, and felt very ill and weak. He is a spare built man, rather above the average height, and is of a peevish irritable disposition, his pulse is rapid and weak, the tongue covered with a brownish fur, complains of headache, the features are somewhat sunken, pupils dilated, is inclined to be dull and soporose, is perspiring freely. Dr. Fenwick proceeded at once to make incisions through the entire thickness of the integument, into the cellular tissue beneath; a deep incision was made through the slough on the scrotum, from which gushed out fully half-a-pint of urine mixed with grumous looking pus. The perineum was incised on both sides of the raphé, and on the abdomen three incisions about two inches and a half in length were made on the right of the median line, and two on the left side; these went through the

skin into the cellular tissue beneath, giving exit to the same kind of discharge in smaller quantity: warm poultices were ordered, to be frequently changed. He was also to have milk, beef juice, four ounces of whiskey made into punch, and the following mixture:—

R—Quinæ Sulph. grs. xii.
 Potassæ chl. ʒi.
 Tr. Ferri. mur. ʒij.
 Aquæ ad. ʒvi.
 M Ft. Mist.

Sig—A tablespoonful to be taken every four hours.

2nd—Passed a restless night, although he appears to have rallied considerably, the cuts are discharging a dark offensive matter, and the urine comes away wholly through the wound in the scrotum. No water coming by the natural passage, his bowels have acted once, he is still very weak, but his pulse has more volume than yesterday, and is at present 116 per minute.

5th—Since last report there has been very little change, complains of smarting pain whenever he makes water, which is apparently due to the urine passing over a raw surface. The slough on the scrotum separated, to-day on removal of the poultice, the discharge has become very profuse, and is still of the same character. Shreds of dead cellular tissue are coming through the wounds on the abdomen, his bowels act regularly, but he is still weak, nor does he gain strength, takes nourishment well, but his sleep is disturbed by muttering, which does not amount to delirium. The pulse is about 100 and is weak, his tongue is very red in colour, and he complains of his mouth being parched and dry.

9th—Much the same as at last report, there is very perceptible emaciation, pulse 116, weak; bowels acting once every day, takes his food well, the discharge from the wounds is much the same as to quantity and quality; carbolic acid lotion (1 to 40) was ordered to the wounds as a dressing, the same also to be injected beneath the skin of abdomen, so as to dislodge the sloughs of cellular tissue which are coming away.

14th—There is very slight improvement if any, the pulse continues high, ranging from 112 to 128. He is very weak, and although he takes nourishment well, still the drain on the system from the discharge is such, that he only holds his ground. From the constant dribbling away of the urine, he is very uncomfortable, and a bed sore has formed over the sacrum. He was therefore placed on a water bed, and a pad with a circular hole in the

centre was put beneath the buttocks, increased care was enjoined on the attendant to see that the bed was kept as dry as possible. A large sponge damped with sulphuric acid and water was placed between the thighs, so as to soak up the urine as it came away. The discharge from the wounds is less offensive and less copious, the same treatment was continued. The left testicle covered by the tunica vaginalis is exposed, but granulating, and the loose skin is being drawn together, so that the organ will eventually be covered by a good coating of integument.

19th—He has been progressing favourably since last report; pulse 108, good volume: the discharge has become more healthy in appearance, and has greatly diminished, the wounds on the abdomen are closing rapidly. The general symptoms are improving, and he feels desirous for food which is given freely, a more nourishing diet with a piece of chicken being allowed, also a pint of ale is substituted for the whiskey.

25th—He has decidedly improved since last report. No change is made in his treatment, with the exception of the diet; he is put on half-diet with a beef-steak. At his own request the ale was omitted, as he states it does not agree with him, and six ounces of whiskey substituted; in every other respect he is going on well. For the first time he noticed that a small quantity of urine came away through the natural passage, the greater portion however flows from the fistulous openings.

From this period he gradually but very slowly improved in health and strength. A catheter was introduced on several occasions, and an exceedingly hard, almost cartilaginous stricture was found in front of the bulb of the urethra. This condition being satisfactorily made out, Dr. Fenwick stated that he would perform "perineal section" as soon as the condition of the patient would permit, in the mean time he would endeavour to build up his patient with tonics, good diet, and attention to general hygienic measures. He continued to improve very gradually but steadily, the parts cicatrised, the wounds on the abdomen healed, as did also those in the perineum. The scrotum at the part where it sloughed drew together, and the testicle became so well covered that the fact of considerable destruction of the skin was hardly noticeable. There exists, however, at the inner side to the left, a small fistulous opening, through which the urine comes out in a small stream whenever the man makes water. He has been up and walking about the ward, and is gaining strength and flesh.

November 26th—A whole month has passed since last report. To-day a careful inspection was made, and it was decided to perform Syme's operation to-morrow. He was ordered a dose

of castor oil at bed-time, and the bowels to be well washed out with an injection in the morning.

27th.—The patient was brought into the operating theater and tied in the usual lithotomy position. Chloroform was then administered, and a grooved staff passed down to the stricture. The incision was then made in the *raphè* commencing immediately behind the scrotum and extending backwards towards the anus for about two and a half inches in extent; the scalpel went through a considerable thickness of brawny tissue, and the urethra was found at considerable depth from the surface and opened in front of its constricted portion. A director was then passed through the stricture, and it was slit up from behind forwards. The staff then passed readily into the bladder. The staff was then removed, and a No. 9 silver catheter introduced and retained in position by tapes. The amount of blood lost was trifling. In the evening the patient expressed himself as feeling comfortable; the urine is flowing wholly through the instrument.

28th.—Slept well during the night, urine passing altogether through the catheter; says he feels well and easy, pulse 100. The wound looks well, but is tender.

30th.—All going on well since last report; urine flowing freely from the catheter, pulse 96. Sleeps well; bowels have not moved since the operation.

December 1st.—Catheter removed, and left out; all going on well, pulse 90. Complains of being hungry, so that a more generous diet was allowed, as it had been reduced after the operation. The bowels still being constipated, an aperient draught was ordered.

4th.—Pulse 90. Catheter passed and retained for three hours in the bladder. No urine has passed through the wound; it appears to have closed. Everything is going on well, and he says he feels very comfortable.

6th.—Is not at all well to-day; had chills and shivering during the night; complains of headache, is feverish, with a pulse of 120; is uneasy and anxious; the perineum and lower part of the abdomen feels stiff and uncomfortable. The urine comes away nearly altogether by the natural passages. There is slight dribbling in making water from the fistulous opening on the inner side of the scrotum. He was ordered a fever mixture, composed of chlorate of potash with hydrochloric acid.

7th.—Is no better, pulse 132. Complains of chills and flushings of heat. There is an erysipelatous blush over the lower part of the abdomen extending to the perineum. A lotion of acetate of lead was ordered to be applied, and muriate tincture of iron in ten

minium doses to be added to the mixture and repeated every three hours.

8th.—Is very much better, pulse 100. The redness has nearly disappeared. The catheter was again introduced to-day. From this date he progressed steadily; the fistulous opening closed completely, and the urine was passed in full stream entirely through the natural passage. He was allowed to leave his bed on the 15th December. He gradually but steadily improved, expressed himself as feeling well; the catheter was passed twice a week, and he left the Hospital on the 3rd January, 1872, with instructions to return every week for the purpose of having the instrument passed.

Proceedings of Societies.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

MEETING HELD DECEMBER, 2ND, 1871.

The Society met in their rooms the President Hector Peltier, Esq., M.D., in the chair. After preliminary business, Dr Fenwick, read the following paper on

Ligature of the Anterior Interosseous Artery for wound, and subsequent formation of a Traumatic Aneurism.

There are no specific directions given for ligature of the vessels of the fore-arm in surgical works. The surgeon when called upon to arrest hæmorrhage in this region, must depend on his knowledge of the anatomy of the part, and be guided in the steps deemed necessary from the nature of the injury. Aneurism of spontaneous origin in this region is almost unknown, and traumatic aneurism is extremely rare. I can call to mind three cases only of traumatic aneurism of the vessels of the fore-arm in my own experience. The first was the case of a boy aged 12 years, who was brought to me on the 18th May, 1849. The details of this case will be found in vol. 5, first series, of the *British American Medical Journal*, page 206. An aneurismal tumour the result of a gun shot injury to the coats of the radial artery, had formed about the upper third of the fore arm, it was about the size of a hen's egg, and was successfully treated by compression over the brachial. At this period the success of Drs. Hutton, Cusack, Bellingham, Harrison and others, in the treatment of aneurism by pressure, was attracting attention, and I believe it was the first in Canada in which that method of treatment had been adopted.

The second case of traumatic aneurism occurred in a patient of Dr. Reddy's, and in which, that gentleman ligated the radial artery. And the third case is the one submitted to the Society this evening.

[*The report of this case appears under the heading of Hospital Reports, at page 244, in the last number of this Journal.*]

It will be observed that although an aneurismal tumour formed in this case, yet its existence was not known until after the integument was freely incised, and the parts inspected with the finger. In similar cases that variety which has received the name of diffuse aneurism or false aneurism is very apt to occur. The formation of an aneurismal sack cannot in any way alter the mode of treatment, which consists in ligaturing the vessel at the point of injury, this is the surgical rule, and bearing in mind the free anastomosis of the vessels of the fore arm and hand, it appears to me the only safe procedure. It may be asked whether it is judicious to seek for a bleeding vessel at such a depth as the situation of the anterior interosseous artery. After the lapse of two weeks from the date of injury, the parts are liable to be changed, and considerable effusion of fibrine is likely to complicate the operation. True, but we may bear in mind the wonderful success of Mr. Syme in analagous cases. Ligature of the anterior interosseous has been proposed and carried out by Pancost, of Philadelphia, in a case where wound in the hand was followed by continued hæmorrhage, after ligation of both the radial and ulnar arteries. Sir W. Ferguson in speaking of this case says: "Considering the depth of the vessel, I should imagine that there would be far greater danger to the arm by such an operation, than if the humeral were exposed and tied." In the case just read, you must bear in mind that the interosseous was wounded, severed in two, and that undoubtedly it became the duty of the surgeon to endeavour to ligate the vessel at the point of injury, failing which I should have resorted to some other mode of arresting the bleeding, either acupressure, or even the actual cautery, and if all these means had failed, I should then have ligated the brachial artery.

I feel convinced from the facility with which the vessel was found and tied, that even in cases where time has elapsed since the receipt of an injury, and that the parts have become infiltrated and somewhat changed, yet that the proper thing to do is to follow strictly the surgical rule, and tie both ends of the vessel at the point of injury.

Doctor REDDY remarked: With reference to the case of trau-

matic aneurism alluded to by my friend Dr. Fenwick, and which occurred about five years ago in my practice. The history was as follows: A fire having occurred during the night in the house where my patient was sleeping, in order to save his life he was obliged to make a dash through a large window, and after passing through he found that blood was pouring profusely from his right wrist near the joint. On examining the place only a small wound existed, which was strapped and bandaged by a physician, the part healing at once, and at the end of a week all appliances were removed. Within ten days however, he noticed near the sight of the wound a small swelling about the size of an almond, this at that time, he did not consider of any importance, but observing that at the end of a month its dimensions had increased to the size of a hen's egg, with considerable prominence, he sought advice, and for a few weeks had been ordered Tr. Iodine and linseed poultices to be kept continually applied. The tumour remaining unaltered he came to Montreal and consulted me. Immediately recognizing the nature of the accident, I passed an accupressure needle above and below the sac, and at the end of four days finding no improvement, assisted by Dr. Fenwick, I slit up and emptied the sac, tying the artery above and below where it had existed. The case did well from that moment, and terminated in a perfect cure.

Dr. TRENHOLME had a case somewhat resembling that just reported by Dr. Fenwick. He is understood to have said that about two years ago he was called to see a fireman, who had been injured in the discharge of his duties. The man in thrusting his hand through a pane of glass, had received a wound in the forearm. there was a good deal of bleeding at the time, but the wound was dressed by a medical man on the spot, and the bleeding did not return until seen by Dr. Trenholme several hours after. It was again easily controlled by a compress, but soon returned. A tourniquet was then applied to the brachial, and an attempt made without success to apply a ligature to the bleeding point. Failure in some measure depending upon the hæmorrhage which was not controlled by the tourniquet. Dr. Trenholme then ligatured the brachial.

MEETING HELD DECEMBER, 16TH, 1871.

The Society met in their rooms the President Hector Peltier, Esq., M.D., in the chair after preliminary business, Dr. G. P. Girdwood read the following important paper on a case of

ALLEGED POISONING WITH THE OIL OF SAVINE.

MR. CHAIRMAN AND GENTLEMAN,—The case which I wish to bring

before you to-night, is one which has some interest for the profession. It appears on the calendar at Sweetsburgh, in October last, as the Queen vs. George Mullin.

In the first instance, the father of the prisoner was to have been indicted with his son, but as the evidence would not bear out any accusation against the father, the case in so far as he was concerned was dropped. The father appears to have been in the habit of administering drugs to sick people in the neighbourhood, and seems to have given some pills to the deceased, but beyond giving her some purgative pills, he seems to have had no blame in the result.

During the trial evidence was not forthcoming to connect the son in any way with the death which ensued, and therefore after two days trial, the prosecution against him was dropped also.

The case may be briefly stated as follows: The prisoner George Mullins, as it appears commonly believed to be a lover of the deceased Josephite Fagan, and it was rumoured had already had one child by her.

She was the school mistress of the country school, and lived in the school-house, consisting of two rooms, a bed-room occupied by the deceased, and a kitchen also used as a school-room, and the prisoner was proved often to have been alone in the house with her for hours, and even to have been seen in bed with her.

It does not appear that any of the neighbours suspected her condition until the birth of the child.

It is stated that on Saturday, the 25th of February, she complained of having taken cold, and on that day she had been out and apparently got her feet wet, she was out on the Sunday morning at church and got wet again, and afterwards was heard coughing by a neighbour who went to see her, and was found and reprimanded for sitting near an open window without sufficient covering. At this time she was coughing and complaining of pain in her stomach, her tongue was white at the edges and bright red in the centre.

On Tuesday, the 27th, she sent a neighbour to fetch the doctor, who, however, was not at home, she sent again at about 1 o'clock, with instructions if he were not at home to fetch Dr. Dartois, who was accordingly brought, he states that he found his patient almost pulseless, attempting to vomit, complaining of pain in her stomach, with a little cough, expectoration easy, sputa streaked with blood, and a pinched drawn expression of countenance.

He did not examine the lungs as he thought there was no immediate danger, but thought he noticed a smell of fresh blood pervading the room, and that she was suffering from an internal flux.

He enquired of the women present what was the matter, but they told him they did not know, the deceased stated that she had taken cold, he asked for two cups and mixed some medicine for her, and left her.

He was subsequently sent for in the evening late, and found her worse, and vomiting a greenish coloured fluid, she was conscious, saw a bottle which he thought contained pain killer and oil of savine, went again to see her on Wednesday morning, found her better, had vomited no more, did not complain of her water or her loins (kidneys), nor pain in her back, but had colic, saw her next day when she was dying. Found no disease that would cause abortion or premature confinement.

A post-mortem examination was made on the 11th March by Dr. Baique, who describes the following appearances:—

F. C. Baique, Physician and Surgeon stated: On the 11th of March last, at request of Coroner Blanchard, examined the corpse of Josephite Fagan.

No external injury, except a piece of skin worn off.

LUNG was congested, in thorax about 1lb. of liquid blood.

HEART softened and pale, blood in it coagulated.

LIVER congested, gall bladder full of gall and large.

ADHESION of pleura.

STOMACH full of greenish liquid and distended with gas.

UTERUS larger than in its normal state, contained about one ounce of coagulated blood, the posterior part more congested and darker. Concluded deceased had been confined shortly before her death.

Progenitive parts were still swollen, and in the vagina and in opening of the womb, a considerable quantity of coagulated blood, is of opinion that deceased died from the effects of her confinement, having taken place before maturity, and occasioned by certain medicines administered by one or more persons unknown, (from the evidences given) he remarked a considerable derangement in the thoracic cavity, which must have been the result of the pains experienced during and before confinement.

The SPLEEN and KIDNEYS were in their normal condition or about.

The BLADDER appeared in its normal state and was empty.

The LUNGS and PLEURA contained a large quantity of bloody mucus.

The FACE was dark as also the upper part of stomach.

The woman was buried. Subsequently, on the 14th April, the body was exumed, and Dr. D'Orsonnens of Montreal, was requested to attend, he did so, and at the second autopsy he removed por-

tions of the viscera and blood, which he took to Montreal for analysis.

A small phial which Dr. Dartois had noticed on the wash stand was enquired for, and was found in the dust heap, was also handed to him.

He made his analysis, and determined that the woman had had a miscarriage produced not by natural causes, but the result of some irritant poison. The result of his analysis being that the irritant poison was oil of savine.

The process for the detection of which was detailed as follows:

Portions of the various viscera were cut up, put into an evaporating basin and acidulated with hydrochloric acid and water; and put on a water bath and digested until all the tissues were dissolved, this was filtered through a wet cloth, and the residue washed. The filtrate and washings were then put into another evaporating dish and evaporated to dryness with sand, the residue was beat in a mortar with alcohol and hydrochloric acid and water—10 or 12 of water to one of acid—agitated with amylic alcohol neutralized with ammonia, and agitated with hot amylic alcohol, this was washed with hydrochloric acid and water, and neutralized with ammonia, and agitated again with amylic alcohol, and evaporated, with this residue he tried to obtain colours, but could not obtain any.

Another experiment was made with the blood mixed with alcohol and evaporated, and an extract obtained in the same way was tried upon a frog, also part of extract obtained by the former process was tried, and a frog died. Amylic alcohol tried on another frog, frog did not die. Chloroform did not kill another frog. Oil of savine mixed with chloroform on another frog, he died.

The little phial spoken of contained a small quantity of reddish yellow fluid, much inspissated, and this smelt like pain killer mixed with oil of savine, this mixed with chloroform applied to another frog's back, frog died.

From these experiments the doctor inferred that the deceased had taken during lifetime, enough oil of savine to be absorbed, and to cause death.

The crown failed to make out the connection of the prisoner with the case, further than being supposed to be the father of the child, and therefore the case was withdrawn, and the jury instructed to find a verdict of not guilty, which was accordingly done, without going into the defence. On the moral evidence there is no occasion to comment, there was nothing to prove that the prisoner had any knowledge of the use of oil of savine, or that he had

advised, counselled the use of, or administered anything for the purpose of procuring abortion.

But it is the medical evidence on which we have to comment. What shall we say of the medical man who finds his patient suffering from pain in the stomach with shrunken features, expressive of severe illness, and pulse small of 150, with attempts at vomiting, and thinks that he recognizes the taste of ergot of rye and oil of savine, and the smell of fresh blood pervading the room, and leaves his patient without ascertaining that she has just been confined, and is at that time suffering from hæmorrhage. What could he suppose oil of savine and ergot of rye, supposing them present, were for, especially in the room of a young woman in bed with pain in the stomach.

Dr. D'Orsonnens, process of separating oil of savine is the most novel and unique process I have ever heard of, he puts the parts cut up into an evaporating basin and digests with hydrochloric acid, filters and evaporates the filtrate to dryness, and then tells us that oil of savine was in the residue. In cross-examination he states that oil of savine is a volatile oil obtained by distillation.

During the process of boiling and evaporation, he did not find the peculiar odour of oil of savine, which had it been present must have permeated the whole room, and been the very best proof of its presence, but finding no irritant poison of a metallic character, and no vegetable poison by any chemical test, he tries a physiological test on a frog.

The best test for the oil of savine is the smell, and unless that be noticed and to a marked degree, and distinctly defined on the application of heat, it can not be said to be present.

Physiological tests are admirable evidence of the presence of poison, either as adjuncts to chemical tests or (of themselves, where there are no chemical tests) to determine the presence of a poison. But the action of the poison on the system must be marked, as for instance strychnine, belladonna, morphia, or atropine, whose action is peculiar, and characteristic, but where the poison sought is like the present devoid of characteristic action, I must most emphatically state my disapproval of their use, especially where a man's life is in danger. In the case of oil of savine, the only effect as a poison, besides that of irritation, and which is peculiar, is the action on the genito urinary organs, and this action is common to camphor, pepper, and many other such substances, which are used in the common pain killer. I have yet to learn that a frog is peculiarly adapted for displaying any specific action on the genito urinary organs, and what the evidence of strangury in a frog is would be an interesting communication to the profession if the doctor

would inform us, also in what peculiar manner the oil of savine would act differently to oil of turpentine, or many other similar substances or fluids of a similar nature. The process detailed by the doctor is the best calculated I know of for getting rid of oil of savine. I know if I wished to get rid of oil of savine, I should certainly evaporate to dryness, and more especially with water and hydrochloric acid, and then I should be sure to drive off any volatile oil. Whatever killed the frog, it certainly was not oil of savine, and I can only conclude it was too much doctor.

No reliance can be placed on the evidence of the phial which was found lying about, three weeks after it was thrown out, but here the doctor states that he had pain killer and oil of savine, and he says pain killer is composed of camphor, red pepper, ammonia, opium, spirit and water.

According to Pereira, camphor is very injurious to frogs. So this may account for this frogs death. But the doctor was not aware of the action of camphor on frogs.

Gentlemen. this case brings me to an important point in medico legal enquiries. The late Mr. Wakely used to say, that two medical gentlemen should always be present at a post mortem examination in a criminal case, one for the Crown and one for or on behalf of the accused; and where chemical evidence is required two chemists should also be present and jointly make the analysis, so that they should appear as a commission to investigate and thus save the disgraceful long and to the defendant expensive cross-examinations which sully our court records.

PERISCOPIC DEPARTMENT.

Surgery.

TORSION OF ARTERIES.

M. Tillaux, Surgeon of the St. Antoine Hospital of Paris (*Courier Med.*, 14th October,) read a note on the torsion of arteries recently, says the *Doctor*, in which he remarks that there would certainly be great benefit if it were not required to tie the arteries, since the presence of the threads brings on suppuration, and is opposed to immediate reunion. It is also not rare to tie a

filament of nerve along with an artery, which causes great pain, and, according to some, tetanus. Also sometimes the noose of the thread takes in some muscular and cellular tissue, which becomes sphacelated. Now, torsion of the arteries quite shelters us from such disasters, and it obliterates completely and permanently the passage through the vessels. To make this ligature the ordinary forceps will suffice; it is better, however, to have different forceps for the torsion of the larger and smaller arteries. The artery being isolated he seizes the extremity between the two ends of the forceps to the extent of five or six millimetres. Holding the forceps in a direction parallel with that of the artery, he keeps it up with his left hand, whilst with his right he slowly twists it. After a variable number of turns, the extremity of the artery comes away in the forceps.

SHALL ECZEMA BE CURED?

The hesitation in curing eczema, lest it should "strike in," is thus met by Mr. Milton, in the *Medical Press and Circular* :

For years I have, in every instance, done my best to check the discharge of eczema as quickly as possible. During that period above 5,000 cases have passed under my notice, and as I have never seen or heard of any injurious results, I can only conclude that treatment cannot produce such an effect as bringing on internal disorder by relieving eczema. *Properly employed, treatment is neither innocuous or beneficial.* I can scarcely help thinking that, in such a large number of instances, if injurious results had been at all common, I must have heard something of them. On the other hand, it is quite certain that a number of patients, cured of profuse discharge, often of years' long duration, are, at the present time, not only well, but all the better for being freed from such a disgusting nuisance. I laid before the Medico-Chirurgical Society the particulars of a case, where the discharge from an eczema, covering the leg from the calf to the sole of the foot, was so profuse that the patient, an old man in shattered health, said, that often, after a day's work, he returned home with his shoe half full of water. This state of things had gone on for three years, yet the speedy removal of it, so far from bringing on any internal affection, was followed by a decided improvement in the patient's health. The old man was very well known in the part of the city where he resided, near London Bridge, and some years after, when I last heard of him, was certainly quite as well as he had

been previous to having the eczema. At the same time another instance was quoted, where a case of long standing eczema of the hand was cured, and where four years after the patient was in excellent health. This man, too, could have been easily identified, being a signal man at the Shoreditch station of the Great Eastern Railway. I could easily add to the list.

No doubt, if a patient suffering under eczema be attacked by some malady assailing the surface of the skin and the internal organization at the same time, as one of the ex-anthemata for instance, the eczema *may* be removed or suspended (for I trust I have shown that this does not certainly happen) as would many complaints, such as gonorrhœa; but I presume it would scarcely be considered the proceeding of a rational being to leave a gonorrhœa to take its own course, lest the removal of it might cause the development of some internal malady.

In all the cases I have seen, where eczema was complicated by an internal disorder such as bronchitis, an exacerbation of this, so far from relieving the eczema, either had no effect or made it worse; while in no case did the increased discharge, when the eczema was worse, in any way mitigate the internal affection. Thus, a poor weaver, suffering from eczema of the leg, came under my care. The disease of the skin was cured, and the patient remained well till an attack of bronchitis, at the beginning of the ensuing winter, prostrated him. In a very short time the eczema returned as bad as before, but without in the least relieving the bronchitis. A few years ago an old man came under my care for eczema of the leg. He was cured, and after an interval of quite four years, he again applied with the same complaint in both legs. I questioned him closely and learned that he had fallen into bad health, that then the eczema came on, and that the worse it grew the worse he became in other respects—a statement quite borne out by the results of treatment, for the eczema disappeared as he improved in health. A poor woman was recently in attendance at St. John's Hospital who had been four times the subject of a bad attack of bronchitis; each time she was laid up in this way an old eczema of the ankle relapsed and passed into a state of ulceration. There is a middle-aged woman attending now at the same institution for eczema, she has twice suffered from bronchitis, and twice eczema has followed the coming on of the chest affection.

I could have added many more cases, but I need no longer note them down, as I have found no evidence on the other side of the question, and to heap together facts, merely to swell the bulk of testimony without adding to its real value, seems to me sheer waste of time. My experience is, that *if two or three cases will not*

induce men to think upon a question two or three hundred will not. I shall, therefore, content myself with adducing the evidence of M. Rayer, who supports the view I have been endeavouring to combat, as to there being a connection between the healing of an internal complaint and the cure of eczema. M. Rayer then says,* that he treated a patient for gastro-enteritis, who had been previously suffering from eczema, and that *during all the time the gastro-intestinal inflammation lasted the eczema was worse.* Again he says,† of another patient, “the appetite fell off remarkably (a certain sign that the health was not so good as formerly,) an occurrence which was followed by a notable exacerbation of the eczematous affection.”

I think, then, we may conclude that the fear of curing eczema, of however long standing it may be, and however delicate the health of the patient, *is not warranted by either proof or analogy*; that no known agent possesses the power of repelling eczema; that we can cure it only by means which improve the health at the same time; and that it is as justifiable to arrest its discharge as that of diarrhoea or cholera. And I may here remark, that all that has been said of eczema may be said of ulcer; there is no danger in healing it up, no bad symptoms ever arose from doing so. Those reported to have occurred were the offspring of prejudice or faulty observation, and offer only a too painful comment on the mode in which surgery has often been studied and taught.

ON EXTRACTION OF CATARACT BY A PERIPHERAL SECTION OF THE IRIS WITHOUT INJURING THE PUPIL.

By CHARLES BELL TAYLOR, M.D., F.R.C.S.E., Surgeon to the Nottingham and Midland Eye Infirmary.

I have on former occasions, in the pages of *The Lancet*, the “*Ophthalmic Hospital Reports*,” and the “*Ophthalmic Review*,” called the attention of the profession to a mode of extracting, in cases of cataract, which I have been led to prefer to all others, and which, so far as facility of performance and percentage of recoveries are concerned, has appeared to me to leave almost nothing to be desired.

I now wish to point out certain advantages I have derived from a further elaboration of the method. In the operation I have

* “*Treatise on Diseases of the Skin.*” Translated by Willis. Second Edition, 1835. Page 316.

† *Ibid.* Page 322.

already described, the wound is subconjunctival, prolapse of the iris is prevented by excision of a small portion of that membrane, and the curvature of the line of incision is too slight to permit of reflection of the flap. There is no tendency for the wound to gape; no gushing of the aqueous, and consequent displacement of parts; manipulation of the eyeball is both safe and easy. Every portion of the cataract may therefore be removed at the time of the operation, and a clear black pupil obtained, through which the patient may count fingers before the eye is bound up. Moreover, although it is not possible that all the cases should be successful, still entire loss of the eyeball from shrinking or suppuration does not occur more than four or five times in a hundred operations. What more can be desired? To this I reply that every modern improved method of extraction, whether it be Graefe's, Mooren's, Pagenstecher's, or the one I have described, involves the sacrifice of a portion of the iris extending from the periphery to the pupillary margin, and that the one thing to be desired is, that with the same safety and facility of performance we should be able to secure for our patients the highest indication of success, a central and movable pupil.

Prolapse of the iris has always been the bugbear of extraction whether iridectomy has not formed a part of the operation; and yet the extreme beauty and superexcellence of the results, when no accident has occurred and when all has gone well, after one of the old flap operations, is such that we constantly find ophthalmic surgeons abandoning the the modern methods to revert to the old and necessarily much more dangerous flap extraction. When I was last in Utrecht I found that Professor Snellen had, in spite of the good results to be obtained by Von Graefe's and other modern methods, returned to the old flap operation; and the same is true of many other continental surgeons as well as of some of the most eminent in this country. Those for instance, who have had the good fortune to study Mr. Bader's practice at Guy's Hospital, must have noticed how frequently and with what excellent results he resorts to the old flap operation. I have myself on several occasions, actuated by a similar desire to save the iris and attain the maximum of success, extracted by my own method without excising any portion of the iris, merely enlarging the wound in a lateral direction, sufficiently to permit of the exit of the lens. Dr. Macnamara, of the Calcutta Hospital, has also endeavoured to effect the same object by the use of the spoon. In my own experience, however, prolapse has occurred from time to time, and whenever I have left the iris untouched I could by no means say as I was in the constant habit of doing when every step of my

process had been fully carried out, that my anxiety had ceased with the operation, and that scarcely any subsequent treatment was necessary.

Latterly I have been endeavouring to ascertain whether it were not possible to combine the prevention of prolapse and the other advantages attendant upon an associated iridectomy with the central and movable pupil so much to be desired in all operations of extraction for cataract, and having attained that desirable consummation, I am anxious to lay before the profession the steps of the process, which are briefly as follows.

As a rule I administer a mild aperient the day before the operation, and extract the following morning before breakfast. Chloroform is much more pleasantly given under these circumstances. The risk of vomiting is to a great extent obviated, and that of all other accidents dependent upon anæsthesia diminished.

The instruments that I employ are a pair of sharp forceps that pierce the sclerotic; a very light speculum (a modification of Von Graefe's;) and two knives, a line in width, and bent at an angle similar to the ordinary iridectomy knife—one with a sharp point, the other with a blunt or bulbous extremity.

Having separated the lids with the speculum, the eye should be gently turned downwards with a pair of ordinary forceps in the operator's right hand. Having got the globe into a favourable position, it should be fixed by the sharp forceps at about the junction of the upper with the middle third of the cornea; the pointed knife is then entered in the corneo-sclerotic junction one or two lines from the forceps at the summit of the cornea, pushed well into the anterior chamber, and then, with a gentle sawing motion, carried along the summit until one-third of the cornea has been incised. The capsule is then carefully divided with Von Graefe's cystitome, having been previously rendered tense, and the eyeball fixed with a pair of ordinary forceps. (It is better to open the capsule at this stage, because bleeding from the wounded iris—and conjunctiva also—at a later period is apt to fill the chamber and render this part of the operation obscure and difficult.) The upper segment of the iris is then seized, and a small piece of the periphery only excised, the pupillary margin and portion of iris attached to it being left untouched and free in the anterior chamber; the lens is then extruded through the gap in the ordinary way, gliding behind the pupil, so that there is no stretching of the sphincter.

In this way I believe that I have secured all the advantages, in the way of safety and certainty, of an associated iridectomy (which

I have already detailed,) and at the same time attained that grand desideratum—a central and movable pupil.

The appearance is quite equal to excellent flap results, and, so far as vision is concerned, I expect much better averages than with that time-honoured operation, since the position of the wound is such as to obviate all risk of interference with the natural curves of the cornea and consequent astigmatism, which so frequently tended to depreciate the results, and disappoint both patient and operator, in Daviell's method.

NOTTINGHAM, October, 1871.—*Lancet*.

EXCISION OF THE SHOULDER-JOINTS FOR DISEASES.

Dr. Ewens, of Cernes Abbas, reports in the *Lancet* two cases of diseases of the shoulder, in one of which an elliptical incision was made, whilst in the other excision was performed by a modification of the single longitudinal incision, both terminating successfully. The first case occurred in a girl, aged 18, who originally suffered from inflammation, apparently of a rheumatic character, of the left shoulder-joint. An abscess formed and pointed at the posterior border of the insertion of the deltoid muscle. Six months after, she was weak and emaciated, with almost complete loss of power to move the arm herself, and forced movement excited great pain. There was a second opening above the joint, when the abscess burst, and both communicated with a sinus leading to the posterior portion of the axilla. No diseased bone could be detected by a probe, but it was shrewdly suspected that disease of the shoulder-joint existed. She was placed on a generous diet, cod-liver oil and iron. The paroxysms of pain were very severe, and as the disease advanced became so violent as to necessitate a frequent resort to hypodermic injections.

At length, acting on the advice of Mr. Pollock, Dr. Ewens made an exploratory incision, and after some groping discovered loose bone. The ordinary elliptical incision was thus made, the flap dissected up, and the diseased joint fully exposed. The head of the bone was found in a very carious condition, and a portion, shortening the bone by about an inch, was removed by Butcher's saw. The wound was sponged with carbolic acid and oil in the proportion of one part of the acid to four of the oil; the flaps re-adjusted and secured by pins and twisted suture. Sickness due to the chloroform occurred after the operation, but passed off in the course of 24 hours. She progressed favourably for 10 days, when a slight rheumatic attack supervened, which was cured by ammonio-citrate of iron and bicarbonate of potash. From this date

she gradually improved; but a small sinus still remained, which indicating more diseased bone, necessitated a further operation. A small portion of the shaft was again removed, and rapid recovery followed.

Fourteen months afterward the arm was two inches shorter than the other. There was perfect use of the arm for underhand work, and power to move it behind her and to bring it forward on the chest. There was, however, no power to raise the arm. In the second case, a large abscess had formed beneath the right pectoral and had been opened; a sinus remained beneath the outer part of the mamma, behind the pectoral muscle, into the axilla, but a long probe failed to reach diseased bone, or to find the end of the sinus. Careful examination elicited the history of a blow over the front of the shoulder three years prior to the opening of the abscess, with an account of symptoms of joint disease, but ascribed to rheumatism, in the intermediate period. A swelling was found on the back of the shoulder, and opened by Dr. Ewens, and curdy pus was evacuated. Her general health improved, but several times spots of erratic erysipelas appeared on the arm, speedily subsiding under the local application of strong tincture of iodine. As the sinuses did not heal up, an explanatory incision was determined upon, and the wound at the back of the joint was enlarged so as to enable the finger to be introduced under the deltoid, which was then cut through transversely, a little below its origin from the spine and acromion process of the scapula, and the joint was thus laid open posteriorly.

There was little hemorrhage. The head of the bone was found to be completely carious, with a large sequestrum in its centre. The posterior half of the deltoid being thus divided horizontally, a perpendicular incision carried through its whole length down to its insertion into the humerus fully revealed the parts to be removed. The patient being very fat, Butcher's saw could not be conveniently used, and the bone was therefore sawn through with an ordinary finger saw, the portion removed representing a shortening of about two inches. The wound was dressed as in the former case, and the patient made a more than ordinarily quick recovery, she being perfectly well in three months. The result now is that the arm is as useful as ever for underhand work; she can lift as heavy a weight as before, and is now, and has been for the last 10 or 12 months, managing a dairy. Besides, she can raise her arm forward and upward in a manner that could only be accomplished by the action of the anterior fibres of the deltoid muscle; and with practice Dr. Ewens fully expects much greater power will be gained.

ON THE TREATMENT OF SCIATICA BY THE VOLTAIC CURRENT OF ELECTRICITY.

By WILLIAM STEPHENSON, M.D., F.R.C.S.Ed., Lecturer on Diseases of Children, and Physician Royal Hospital for Sick Children, Edinburgh.

The following two cases of sciatica treated by the voltaic current of electricity, illustrate well the action of the agent in the treatment of neuralgic pain—a subject which is attracting considerable attention.

By the Voltaic current is meant one derived directly from a battery, and distinguished as the primary and continuous current; in contradistinction to that in general use, the Faradic, induced, or secondary, obtained from an induction coil or magneto-electric machine. The latter is a momentary current more or less rapidly repeated. The distinction must be constantly kept in view, for they differ much in their physiological and therapeutic action, and as I shall presently show the Voltaic has much greater effect in relieving and curing pain than the Faradic:

CASE 1.—David L., æt 34, a carter, states that twelve months ago, he had a fracture of the tibia for which he was treated in the Infirmary. Ever since he has had a pain in the outer part of the leg and foot. Eight months ago it extended to the hip over the sciatic nerve, and he has since been quite lame. The pain is easy while sitting but severe whenever he attempts to walk; he cannot stand erect; while in bed, if he moves his leg, he feels unable again to get it into an easy position, and has to get up often during the night on account of the pain. He has always enjoyed good health and has never had rheumatism. He has been attending the Royal Infirmary, where he has been purged, has taken quinine largely, needles were introduced, blisters applied, and twice he has been cauterised with Corrigan's button, but all without benefit.

Dec. 7th, 1870.—A current from ten increased to twenty cells (Daniell's, was applied for five minutes, by means of moist sponge conductors, the positive pole being placed over the sacrum and ischiatic notch, the negative at various points along the course of the nerve. He stated that he felt greatly relieved, but the pain was not entirely away.

8th.—He walked home with greater ease than before; could stand straighter up; he has had a better night's rest than since the pain began. Fifteen cells were again applied as before.

9th.—Walked home quite free from pain; slept well; found a slight pain in the leg in the morning when he rose, but passed off when he began to move about. Fifteen cells as before.

10th—Had a good night's rest; was able to take a walk to-day; can stand perfectly erect. Twenty cells direct and inverse current for fifteen minutes.

The application was continued regularly and the improvement maintained. There was still, however, a residue of pain which remained obstinate, and was always induced when he walked much, or if the treatment was interrupted. The affection was worse in frosty weather. The effect of the induced current was tried for a time by means of a magneto-electric machine. It at once relieved the pain, like the other, but the effect always passed off much sooner. The subcutaneous injection of morphia was next combined with the voltaic treatment. This produced a more decided effect, but the pain continued to return after a day's walking. Iodide of potass, quinine and arsenic were given, and for three months, with one or two interruptions, the electric treatment was persevered in. The patient indeed was always glad to return on account of the comfort he experienced. The strength and direction of the current and mode and duration of application were modified as much as possible, without any change. It then occurred to me to try the electro-puncture, an insulated needle being introduced into the hip near the nerve, and a moist sponge applied over the painful spots in the leg. The effect was decided, a steady and continuous improvement being felt after each application, and after the sixth all residue of the pain was removed.

CASE II—David O., *æt* 50, a letter-carrier, has suffered from sciatica for four months, never had rheumatism, but once had lumbago. The pain extends over the whole length of the nerve, and affects also the superficial sacral nerves, it is always worse at night, and greatly interferes with sleep. He has been blistered seven times, four times had acupuncture applied, and taken several medicines. From the acupuncture he derived some benefit, but the pain always returned.

The electricity was applied, and benefiting from the experience of the former case the electro-puncture was used at once. The relief after the third application was decided, but the returns of the pain after walking were at first severe and frequent—but never lasting long. Whatever pain he had was always at once removed by the application. In a fortnight he could walk freely, but it was not until after five weeks use that the last residue was removed and he was able to resume his employment.

In using the electro-puncture a much feebler current is required than when the resistance of the skin has to be overcome. I had

several opportunities also of observing in the latter case that when too strong a current was used, or the needle applied too close to the nerve, there was sure to be an exacerbation of the pain during the night. Five cells produced the best results; ten seemed to over-stimulate and fifteen excited the pain at the time.

I have treated five other cases with the current. Two were recent cases, and had not been otherwise treated; both were well in a fortnight. One was the mild but persistent "residue" of a former attack and was removed in a week. The other two were much relieved, but left for the country after a few applications only.

In all an immediate relief was experienced, and this is the great criterion whether the case is likely to be cured or not. If no relief is felt after three or four applications there is little probability of any benefit. The progress to perfect cure may be slow—the above, from the experience of others, are exceptionally so—but the severity of the affection is broken at once and comparative comfort is gained. The first case was protracted, but all the more instructive, giving an opportunity of testing the relative merits of the two currents, and illustrating how much the want of success may depend not upon the remedy but the mode of its application.—*Medical Press and Circular.*

SURGICAL STATISTICS OF THE LATE WAR.

It is only as shreds and patches that we are able to gather particulars in regard to the results of wounds in men treated in hospitals during the Franco-Prussian war. Some such statistics have recently been published* in a report of the Ambulance de Ter-migniers, under the care of M. Lucas Championnière, and although the cases number only 157, the particulars given are useful for comparison. The whole were received between the 7th of December, 1870, and the 8th of January, 1871, and are classified as follows:—

HEAD.—Six cases, viz., two slight of hairy scalp by bullet, one of face by shell, with destruction of soft part of nose, and right cheek; one contusion of right eye by shell; one fracture of lower jaw by ball (transferred on 3rd January, doing well): one bullet wound through the molar region, the missile escaping at the nape, with additional wound in the left shoulder, and the feet completely frost-bitten. This patient died from these complicated injuries.

* "Le Mouvement Medical," 19th Nov., 1871.

CLAVICULAR REGION.—One, viz., simple fracture of the right clavicle—recovered.

SHOULDER.—Three, viz., one of outer aspect by a shell; one *seton* by bullet above the left scapula; one fracture by ball, of the scapula; all recovered.

ARM.—Seven, viz., *seton* by ball in right arm, three similarly in the left; one fracture of right humerus by ball, treated by apparatus to prevent motion, and the patient transferred, doing well.

ELBOW.—Two, viz., one *seton* by bullet of left elbow, with a fracture of the end of the humerus and olecranon by shell, for which excision of the shoulder was performed, but the patient succumbed.

FOREARM.—Seven, viz., three *seton* by ball, two being in the left and one in the right. One gun-shot fracture of radius; one similar injury of both bones; these two cases being transferred, doing well; one case of fracture of both bones by a shell demanded amputation in the arm. This operation was performed on 24th December, but death by pyæmia occurred on 6th of January. One deep wound of upper part of the forearm, with profuse hæmorrhage; the axillary artery was secured by ligature, and 24 days afterwards the patient was transferred, doing well.

HAND.—Two, both by shell, with destruction of the two last fingers in one, and one in the other.

HIP.—Five, viz., two contusions by shell; two wounds by bullet, one in soft parts, the projectile not extracted, the other penetrating the bone of the right ilium under anterior superior spine, the projectile unextracted. In both these profuse suppuration occurred, but the termination in either is unrecorded. The fifth case was one *en seton* by bullet in the right hip, the precise tissues injured are unrecorded, but the case was fatal.

THIGH.—Thirty-one, viz., nine *en seton* of the right thigh; nine similar of the left; five contusions by shell of the right, three similar of the left; one contusion of both thighs by shell; one severe wound, with fracture of the right great trochanter, proving speedily fatal; one fracture between the condyles of the right femur, the bullet remaining fixed in the bone; amputation performed in lower third of the thigh, followed by gangrene of the stump, and death. Two comminuted fractures of the femur for which immediate amputation had been performed, death following in both, in one by hæmorrhage, in the other by pyæmia.

KNEE.—Thirteen, viz., seven were non-penetrant, of which three of the right and four of the left, are slight. The more severe included one penetrating of the right, requiring amputation in upper

third of the thigh, ending in death by pyæmia; one fracture of patella and external condyle of the tibia by a bullet, gangrene following, secondary amputation performed, and death occurring by pyæmia; one comminuted fracture, amputation and death by delirium tremens; one comminuted fracture of the left patella, with purulent arthritis, amputation in the upper third of the thigh, 19th December, death by septicæmia on 23rd; one comminuted fracture of the left patella and external condyle, with large opening into the joint, treated by applying an apparatus to render the injured parts immoveable, but followed by multiple abscesses and death; one wound of the left knee, the bullet passing under the ligamentum patellæ, followed by purulent arthritis, and the patient transferred in a bad condition.

LEG.—Thirty-six. Among the cases which recovered are enumerated eighteen bullet wounds *en seton*, namely, eight of the right, and ten of the left; also nine shell wounds, of which seven in the right and two in the left; eleven comminutive fractures required the performance of amputation, of these seven were in the right and four in the left; of the former, one comminuted in the lower part of the right, with a wound *en seton* of the left, amputation of the right, recovery of the patient; one shell wound of the calf, with fracture of the patella, and laceration of the tibial artery, ligature of the femoral, and transfer of the patient, doing well; one gunshot of the tendo-achilles, and inner malleolus, followed by much suppuration, many incisions and the bullet ultimately removed, death; one comminutive fracture for which immediate amputation had been performed, secondary hæmorrhage recurring, a second ligature was applied at a higher part, the patient subsequently dying of exhaustion; one amputation of the thigh and two of the leg, performed on the field, one of these cases proving fatal by gangrene of the stump, and tetanus; of the four latter one was a shell wound, implicating also the right, followed by gangrene and death; one of the fibula, the patient transferred in a satisfactory state; two of immediate amputation of the thigh, death occurring in one by pyæmia.

INSTR.—Five, one being slight, *en seton* of the left, the others severe, one penetrating the joint, the bullet remaining, tetanus supervening, and death; one penetrating the joint, requiring amputation, the patient subsequently dying; two immediate amputations in the lower third of the leg, one of the patients dying of tetanus, the other being attacked with gangrene of the stump, but ultimately recovering and being transferred in a good state.

FOOT.—Seventeen, of which twelve by bullet or shell were of inconsiderable severity. The remaining five included one com-

minuted fracture of the metatarsus by a shell, the patient being seized with tetanus, and dying; one similar fracture, with severe injury of the toes, transferred doing well; one comminuted fracture of the left tarsus, requiring amputation of the leg, followed by sphæcus of the flap, pyæmia, and death; one destruction of a toe by a shell, and one fracture of the metatarsus by a bullet—both these cases doing well.

CHEST.—Two; both wounds penetrating, followed by traumatic pneumonia, and both cases left in a satisfactory state.

ABDOMEN.—Eight, four non-penetrant, these recovering; four penetrant, there being in three, wounds of the intestine; one with injury of the liver, death occurring in all four.

BACK AND LOINS.—Eight; one case of wound by a lance in the left lumbar region, and death by confluent small pox; five of the soft parts, of whom one died of dysentery; one, a shell wound in the lumbar region, with a lesion of the bowel—death; one fracture of the vertebral column, also ending in death.

BUTTOCKS.—Four; two superficial, two deep. In one of the latter the bullet entered the left buttock, penetrated the pelvis, and probably injured the rectum; the patient was transferred to another hospital. The other case was one of wound by bullet through the left buttock and iliac bone, ending in death.—*The Doctor.*

EXCISION OF CANCER OF THE OESOPHAGUS.

The last number of the *Archiv für Klinische Chirurgie* contains a paper by Dr. Billroth, in which he proposes, in cases of carcinomatous stricture of the oesophagus occurring in an accessible situation, to cut out, through its whole circumference, that portion of the tube which contains the disease. He has not yet performed this operation on the human subject; but he is led to believe in its practicability, first, from the occasional restoration of the urethral canal after its division, and secondly by the result of an experiment which he performed on a dog. He cut out about an inch and a quarter of the animal's oesophagus, fastened the lower end to the edge of the wound by two sutures, and fed the dog with milk through an oesophagus tube passed through the mouth into the stomach. The sutures were removed about a week after the operation. There was considerable mucous discharge from the wound. The external wound gradually contracted, and the discharge diminished. About ten weeks after the operation the external opening was completely closed. Bougies were frequently

introduced so as to dilate the cicatrix, and the dog gradually regained the power of eating flesh, potatoes, etc., and swallowing them with ease. Three months after the operation the animal was killed. The œsophagus presented a simple annular cicatrix, scarcely half a line wide; the tube was completely pervious.

CANCER.—That Cancer is to be regarded as a blood disease, requires stronger evidence than has yet been adduced. It is really a parasitic disease in its nature. To a certain extent a constitutional tendency must be admitted, just the same as there is to sebaceous tumours and warts, but no one ever thinks of calling these the results of a blood disease. Cancer flourishes best when there is plenty of good blood, and grows very slowly when the blood is poor. If a patient with Cancer of the uterus is kept on the sparsest vegetable diet, just enough to keep body and soul together, the disease will be arrested and may disappear, as it has been known in one well authenticated case to do. The antagonism between tuberculosis and cancer, may be explained by the fact that tuberculosis is associated with waste of tissue.—*C. De Morgan from Braithwaite's Retrospect of Medicine.*

Medicine.

A Fully-matured Tænia Solium, or Tape-worm, expelled from a Child Five Days old. Report of a Case occurring in the Long Island College Hospital, Brooklyn, N. Y. By SAMUEL G. ARMOR, M. D.

The natural history of tape-worm parasites has been a subject of fruitful speculation, and, so far as I am aware, the case here reported is quite unique. The *tænia solium*, according to Kùchmeister's investigations, "only occurs in children who partake of hog's meat." Neither he nor Cobbold makes mention of the possibility of a fully-matured *tænia* occurring in infantile periods of life. And Vogel says, in writing of tape-worm: "They are rarely found in children under one year of age, in nurslings probably never." This latter statement is in harmony with the generally-accepted view that "animal food, either raw or partly cooked, is the probable source of the *tænia solium*."

The theory appears to have been generally accepted heretofore, that the encysted parasites are taken with the food into the stomach, and that the embryo, set free from the covering of the egg by a process of digestion, passes into the intestine, fixes itself

to the mucous membrane, and, by a process of budding, produces the long, tape-like series of the articulations, which are finally converted into the full-grown tænia. Whether this be the universally-accepted theory, or not, certain it is that the encysted parasite, found in whatever part of the body it may be, only develops to maturity in the *intestinal canal*. The query at once arises, therefore, how did the *cisticercus*, in the case here reported, gain entrance into the intestinal canal of the new-born infant? for it is difficult to arrive at any other conclusion, from the clinical history of the case, than that the worm was fully matured at the birth of the child.

Without offering any speculations as to how the young tænia gained its embryonic *habitat*, I merely copy the clinical record of a case which recently occurred in the Long Island Hospital, Brooklyn, N. Y.:

Kate Quinn, aged twenty-four, an Irish servant-girl, of apparent good general health, was admitted to the hospital September 3, 1871. Diagnosis—*parturition* and a *primipara*.

In less than an hour previous to her admission she gave birth to a well developed male child in the street, and, having no home she was at once brought to the hospital.

September 4th.—Mother doing well; child nurses vigorously, and is apparently well.

7th.—Child for the last fourteen hours has refused to nurse, and examination reveals *trismus*, preventing introduction of little finger into its month, and touching extremities induces slight tetanic spasms. Ordered mild anodyne, but with no relief.

8th.—Babe seen by Prof. Skene, who, supposing the child was suffering from intestinal irritation from some cause, ordered three $\frac{1}{2}$ -gr. doses of calomel, to be followed by oil, and at 7 P. M.—some ten hours after taking the first dose of calomel—the infant passed, *per anum*, two segments of what was at once recognized from its obvious appearance as a *tape-worm*, flat, perceptibly cornuted, and possessed of slight wabbling motion of a minute's duration. The specimen, carefully picked out of the fecal matter in the babe's diaper, was submitted to different members of the hospital-staff, placed under the microscope, and the diagnosis concurred in that it was well-matured *tænia solium*.

9th.—Trismus continues; small amount of mother's milk fed by spoon; at 5 P. M. three more segments of worm came away; ordered spts. terebinth, 15 drops in mucilage.

10th.—One more segment voided; trismus remains; spasmodic action from touching extremities less; takes milk from spoon

eagerly, but has no power to grasp nipple; repeated spts. terebinth.

11th.—Another segment came away; still makes fruitless attempts to grasp nipple; ordered oil of male fern, 15 drops in mucilage.

12th.—Repeated the oil of fern, to be followed by small dose castor-oil.

13th.—One more segment passed; suspended medicine for a few days.

18th.—Two $\frac{1}{2}$ -gr. doses of calomel ordered at intervals of two hours; soon after the administration of last dose four more segments passed; trismus entirely gone; child nurses well, the mother having an abundant supply of milk; medicine discontinued.

Oct. 18th.—Mother and child still in the hospital; both doing well; the child has passed several segments since last record, but none having the appearance of the head. Child has never taken any nourishment but the mother's milk.

The foregoing is the brief clinical record of the case; as to the fact stated there can be no doubt. The case was carefully and critically watched by Prof. Skene, of the hospital staff, who was on duty, and by T. H. Hutton, M. D., resident physician.

On October 2d, twelve of the segments passed were presented to the Long Island College Hospital Society for examination, and, at their suggestion, B. A. Segur, M. D., a gentleman of skill and experience in the use of the microscope, was appointed to make further examination of the specimens. At a subsequent meeting of the Society, Dr. Segur reported that "the specimens presented to him for examination had the obvious appearance of tania, and under the microscope, with $\frac{1}{2}$ -inch objective, he was able to see the eggs, presenting the same size of joints passed by adults."

The specimens were subsequently presented to the Pathological Section of the King's County Medical Society.

Can the mother communicate the germs of the parasite to the fœtus in utero? And, if so, how do they gain entrance to the intestinal canal?

To determine one of the questions, the mother, being still in the hospital, and having fully recovered from her confinement, was, on the 8th of November—about two months after the birth of her child—put upon treatment for tap-worm; although neither previous history nor present condition indicated the presence of tania. She is an unusually stout Irish girl, of good flesh, good digestion, cheerful disposition, entire freedom from nervous disturbance, always rested well of nights, and never herself

suspected the presence of tape-worm. However, for the purpose above indicated, the mother's bowels were thoroughly evacuated, and, while fasting, she was ordered an emulsion of pumpkin-seeds, which she faithfully took for twenty-four hours, at the end of which time she passed over seventy segments of tænia.

This completes the clinical history of a case which throws much doubt upon the present received theories as to the probable and *exclusive* source of tænia. That the encysted parasites gain entrance to the stomach and bowels by means of animal food containing the parasitic germs, the experiments of Kùchmeister and others leave no room to doubt. But that they may also gain entrance through the mother to the fœtus *in utero* would appear to be equally well established by the case here reported.—*New York Medical Journal*.

Midwifery.

THE MODE OF INVESTIGATING THE DISEASES OF WOMEN.

Dr. Robert Barnes, Obstetric Physician, and Lecturer on Midwifery and Diseases of Women and Children, at St. Thomas' Hospital, says in a lecture reported in the *British Medical Journal*: I have now a few general observations to make on the mode of investigating the diseases of women. In a former lecture, I told you that we were guided by the subjective sensations of a woman in our first investigations. When a woman complains of aching and pain in a part, we are naturally led to conclude that there is some mischief going on in the seat of pain, although there is no absolute certainty until we examine the organs suffering. In single women, we are chiefly guided by some disturbance of the function of menstruation. In many cases of disturbed menstruation, there exists some morbid condition which it is necessary to investigate. If there be intense pain and leucorrhœal discharge, we get the indication of disease requiring exploration. Discharges especially are significant, and render examination imperative. No woman suffers long from distressed menstruation or a discharge without danger of mischief. By examination, then, you come to a large class of *objective* signs, which, taken in conjunction with the *subjective* signs, throw great light upon the disease. From the two together, you may come to a rational view of the case.

First, then, as to the ovary. The ovary is recognised now as the *primum mobile*, the first cause of menstruation. When menstrua-

tion is disturbed we should look to the ovary; although the uterus, being the organ of the discharge, should be looked to also. Still, if there be no ovary, there is no menstruation; if the ovary be diseased, there is likely to be difficult menstruation.

There are diseases, however, having their primary seat in the uterus. The uterus has a certain definite position, size, shape, mobility, or range of motion, sensibility and attachment. All these conditions can be examined by the touch, and any deviations from them must have a cause. There are some other properties of the uterus which we can bring under observation—such as its vascularity, colour and alterations of surface. The speculum enables us to see the lower part of the uterus and the vagina, and is here of the greatest possible service; but nothing, of course, can enable us to see the ovary.

[Dr. Barnes then referred to a diagram of the uterus and its appendages in the healthy state, and proceeded to show how its position was affected by abnormal conditions.] If there be a large quantity of urine in the bladder, the uterus is thrown backward; if the rectum be loaded, the uterus is pressed forward. Sometimes the uterus is from this latter cause so pressed against the bladder, that there is retention of urine. I have known distressing cases of this kind. There are no means of keeping the bladder free until you have washed out the rectum. As to change of size, if the uterus be much enlarged, and the other signs of pregnancy agree, we conclude that the woman is pregnant; but the minor sizes of the uterus are not so easily settled as the result of pregnancy. They may be the result of engorgement, or of mischief coming on after pregnancy, or of tumours, etc. If at the end of three weeks from confinement we find that the uterus is large, we conclude that involution of the uterus has been arrested. The best way to ascertain the bulk of the uterus is to grasp it between the two hands. The sound will also measure the size of the uterus. The change of form chiefly indicates the presence of tumours in the uterus, which, springing out of its walls, alters its shape; or it may indicate a displacement. We ascertain the sensibility of the organ by the touch. Tenderness on pressure may arise from inflammation, or neuralgia, or irritability. There is supposed to be a simply hyperæsthetic condition of the organ, the slightest touch giving acute pain; the tenderness may also arise from hysteria. In its normal state its sensitiveness is very slight.

There is another sign of great importance in ascertaining the true condition of the uterus—change of density or hardness. The os uteri, in the unimpregnated state, is as hard as the point of the

nose: it feels firm, smooth and hard. If that condition be altered to softness, you may suspect pregnancy; but of course you would not rely upon that sign alone. Another meaning of the softness is increased vascularity, which may arise from a granulating surface, the result of lost epithelium. If that be combined with increased size, patency and cancerous growth in the cervix may also help to keep the os open.

The significance of altered mobility is very important. The uterus naturally moves about, and if it do not, you have to consider a number of causes which impede it. A large fibroid tumour will sometimes fix the uterus. Cancer almost invariably alters the mobility of the uterus. Of all things this is the great test of cancer. In the earlier stages, indeed, it affects only the cervix; but when it has invaded the roof of the vagina, the bladder, and rectum, then you get a dense, firm mass, filling the brim of the pelvis, which you cannot move. There are conditions about the os which make this sign still more clear; the history also will guide you. After labour or abortion, you may have inflammation of the pelvic peritoneum; and this is sometimes attended with great effusion of plastic matter, which sets the uterus and surrounding structures fast together. The history will also guide you here. In the case of cancer you can see the disease, and find cancerous bleedings and discharges.

There is another cause of fixed uterus: the pouring out of a quantity of blood behind it—the so-called retro-uterine hæmatocele, a very interesting example of which is now in the hospital. This condition is always accompanied by pelvic peritonitis. This is distinguished by the os uteri being pushed against the symphysis pubis, and the sound passing upward and forward toward the umbilicus. This determines the position of the fundus of the uterus, proving that the mass felt behind the os cannot be the body of the uterus. The history and other signs, then, lead to the diagnosis of hæmatocele.

CATHETER REMOVED FROM A FEMALE BLADDER.—DR. W. T. BRIGGS (*National Journal of Medicine and Surgery*,) reports a case of escape of catheter into the female bladder during its use for the relief of retention of urine. It was removed by the dilatation of the urethra with a sponge-tent, and the employment of dressing forceps.

Dr. Briggs, in 1864, removed a catheter from the bladder, two weeks after its entrance, by dilatation of the urethra with the bougie and forceps. Dr. Briggs remarks in conclusion, that in the *Medical Fact Observations*, published in London in 1791, by William Ford, is possibly the only case on record.

Canada Medical Journal.

MONTREAL, JANUARY, 1872.

SANITARY REFORM.

We suggested in the last issue of our periodical, the propriety on the part of our Government, of establishing or creating a Central Board of Health for the Dominion of Canada. And we think that as far as Montreal is concerned, the action of our City Corporation during the last few days has fully proved the position assumed. The papers have been teeming with letters and articles from medical men and others, much wordy argument has been expended at the meetings of our local Board of Health, but we have so far failed to observe one single measure, calculated to allay public anxiety on the subject of the spread of epidemic disease which is known to exist amongst us. The present existing evil Small-Pox is more or less prevalent throughout the country. We have before alluded to the absurdity of our law bearing on vaccination, and the proof of the insufficiency of that law is almost of daily experience. As we before stated, our Legislature introduced and passed a law rendering vaccination compulsory in the cities and larger towns of Canada, while the country parts are left without its beneficial provisions. A law to be efficient should be general, and furthermore it should enact, under heavy penalty, that all children should be vaccinated, say, within three months after birth. The annals of vaccination are easily attainable, facts published by Hawkins and other writers on this subject are most convincing. An able paper published by the late Sir J. Y. Simpson, shortly before his death, is sufficient in itself, if we had no other evidence, to prove that of all diseases to which human flesh is heir, Small-Pox appears to be one of the most contagious, and furthermore that it is eminently a preventible disease.

It becomes therefore a duty in which a large measure of self preservation is mixed up, to inquire into and decide upon the best means of attaining this desired end.

From the teaching and experience of three-quarters of a century, the efficacy of vaccination has been fully tested and proved, proved to all but those who, with a desire of appearing singular,

have set up a theory of their own adverse to the teachings of Jenner; need we repeat the story of its reducing in Sweden, the annual mortality from Small Pox, in a period of three years, from 12,000 to eleven cases of death from this cause. Is it necessary to urge on our readers the statement of one writer, that vaccination had as effectually driven Small Pox out of Ireland, as ever did St. Patrick the snakes and reptiles. Or coming down to our own times, and to be more practical, is it necessary to show the thousand and one cases wherein the protective influence of vaccination has been marked and unmistakeable. We will not discuss the question of the protective influence of vaccination, all interested in that subject will find abundance of evidence in any work on practice of medicine. To endeavour to convince those who choose to adopt other views, would be waste of time.

We may state that Small Pox is a disease which as a general thing attacks but once in a life time. It is only propagated from individual to individual the recipient being peculiarly susceptible to the attack, or susceptible to the specific poison generated in the course of the malady, and transmitted from the affected to the healthy.

The mode of transmission is by the near approach of the one to the other, or by actual contact, by direct inoculation, or the disease may be transmitted through clothing or any substance, with which the sick may have come in contact. "We would no more expect," says Sir J. Y. Simpson, "this known species of disease or poison to originate *de novo* at the present day, under any combination of circumstances, than we would expect a known species of animal or plant—as a dog or a hawthorn—to spring up *de novo*, and without antecedent parentage."

Laying aside therefore altogether the subject of vaccination, we are desirous of simply enquiring into the contagious character of Small Pox, with a view of ascertaining whether it is preventible, and what common sense measures should be adopted for its arrest. We must refer to the history of epidemics which have been noticed and which have originated almost in every instance from one single case. In 1818-19, the town of Norwich, England, was attacked with Small Pox, and some 3,000 persons suffered, of whom 530 died. Mr. Cross, who gives an account of this epidemic, states that it was originally introduced by a girl, who in travelling with her parents from York to Norwich, was exposed to the disease at a market town, and that on her arrival home it showed itself and rapidly spread. This was in June, 1818, and from that time to the spring of the year following, 530 lives fell a sacrifice.

In Sir James Simpson's paper before alluded to, another striking instance is given. The town of Leith was the habitat of Small Pox in 1861-62. Dr. Paterson, of Leith, made an official inquiry into the origin of the visitation, which brought out the following facts: "A beggar woman, on tramp from Newcastle, brought in the course of her wanderings to Leith, a child lately affected with Small Pox, and with the crusts of the eruption upon it. In Leith she became an inmate of a lodging-house in a "land" or block of buildings, full of lodgings for the poorest of the poor. Many of the lodgers in the other houses with their children, visited the room where the woman and sick child resided. By the time Dr. Paterson was requested by the magistrates to inspect the tenement, several persons were already dead of Small Pox, caught from this imported case. The disease soon spread to other parts of Leith, and ninety-nine human beings were destroyed by it, and much suffering and sickness produced among the many hundreds in the town who caught the disorder and recovered." Evidence of a similar character to the above is to be found in the annals of the death-register throughout Great Britain, and from official returns, the spread of Small Pox, as of other contagious diseases, can invariably be shown to originate in districts and towns in a single imported case. This we think is evidence sufficient as to the contagious character of Small Pox.

It is but reasonable to believe that had the first case been reported to the authorities of the town, and precautionary measures adopted by isolation in a hospital, all this unnecessary loss of life and spread of disease would have been avoided. If we regard the occurrence and spread of any contagious malady in a pecuniary point of view, it will be readily admitted that the actual cost of the maintenance of the first few cases in any community would be very much less than the subsequent cost after the disease had become general.

We have asserted that the disease is transmitted through clothing, or any substance with which the sick have come in contact, and on this point we will again refer to the work of Prof. Simpson, he says: "I have heard of repeated instances of Small Pox obtained by riding in public carriages, which had been employed immediately before by persons still in the stage of convalescence from the malady." There can be no second opinion on the propriety of providing vehicles specially for conveying those afflicted with contagious disease to hospitals. And in the case of our own city, we regard the neglect of this precautionary measure as criminal. The idea was mooted by our City Board of Health, and an expense which would have cost in all likelihood about one

hundred dollars, was not assumed probably to the exposure to direct contagion of many valuable lives that thousands of dollars could not replace. What we would urge on our Board of Health is to provide at once, without further delay, one or more vehicles to be placed at either hospital, or at the police stations, these for use only in conveying persons suffering from contagious diseases from their homes to the hospitals. A city bye-law exists prohibiting public vehicles for hire, taking dead bodies to the cemeteries; a very good addition to this law should enact that no public vehicle for hire, should under any circumstance, convey any person suffering from a contagious malady from their home to any hospital. This bye-law could only be rendered efficient by the civic authorities providing other means for the conveying of the sick. Such a precautionary measure would at least allay that public anxiety which does exist on this point, and would be but just to all parties concerned. Here even, in this necessary measure, delay will we have no doubt occur, delay which may spread epidemic disease and death into many families. Had we a general Board of Health for the Dominion, such an enactment would be passed and forthwith carried out. Our local Board of Health are powerless, they possess no independent authority, and were they to pass any measure requiring direct outlay, would have to submit the proposal to our council board, with the possible chance of its taking at least six months before a vote could be obtained, and then possibly shelved.

We have thus far dwelt on the subject of the contagious character of Small Pox, the same may be said of Scarlet Fever, Measles, Whooping Cough and Cholera. We had intended suggesting the best means for preventing the spread of contagious maladies, these consist mainly in isolation and strict segregation. The propriety of establishing temporary Small Pox Hospitals at a reasonable distance from the city, should under present circumstances be entertained and carried out. The length of this article obliges us to reserve until our next issue, the publication of what we desire to say on this important topic.

A REVIEW OF THE TRIAL OF ANDREW HILL FOR MURDER.

In the month of May last, we took notice of the trial of Andrew Hill, for the murder of his wife, and in the course of our remarks, we stated that in our opinion the theory of the medical witnesses for the defence was wild and extravagant, and we maintain that our opinion was based on just and reasonable grounds. That the deceased could have died of the bursting of a thrombus, we regard

as simply impossible; from the fact that the descending ramus of the pubis was stripped of its periosteal covering, a condition which is not possible to have resulted from the formation of a thrombus. This points in our opinion to direct violence to the part however inflicted. A reply to our article has been published by Dr. Paré, which we are not inclined to reproduce. Had Dr. Paré written a disclaimer to the CANADA MEDICAL JOURNAL, we should have been bound to give him the benefit of our pages, reserving to ourselves the right of criticism, but he has appealed to the public, and therefore as his opinions have already been made public, and as the case has become one of local dispute, we cannot further take notice of it.

L'UNION MÉDICALE DU CANADA.

This is the name of a monthly journal published in the French language, and devoted to Medical and Surgical Science. It is issued from the *Minerve* Printing Office, in our city, and has Dr. J. P. Rottot for editor, assisted by Drs. A. Dagenais and L. J. P. Desrosiers. It contains forty-eight pages of reading matter, is well printed, and is on excellent paper; altogether it presents a most creditable appearance. We rejoice to welcome this new periodical as the exponent of our French Canadian confreres. The price of subscription is three dollars per annum, and we sincerely trust that the work will be well sustained, not alone by subscriptions freely given, but by the united literary efforts of the profession in country parts. Gentlemen at a distance should be alive to the fact that this is a labour of love, that the projectors have assumed the responsibility of publishing a medical journal in the French language, chiefly with a view of cultivating amongst their professional brethren literary tastes. The journal in its present form, and under its present able management, is we feel confident, destined to do much good. We trust that the motto selected—*“Cur nescire pudens pravé, quam discere malo?”* will be carefully thought over and digested, and that dropping “false modesty” the profession generally will prefer to learn, rather than remain ignorant.

Medical News.

DISINFECTANTS.

M. Gille has published in the *Archives Medicales Belges*, an interesting article "On the value of a Disinfectant," in which he says we must not only get rid of offensive smells, but of all other products of decomposition, and that any substance which only effects one of these ends, is a very imperfect disinfectant. He then passes in review some of the disinfectants in common use. Sulphate of iron he considers is useful from its effect of decomposing ammonia, carbonate, and sulphohydrate. Perchloride of iron, besides this, precipitates albuminoid matters, and acts also by its chlorine. Lime disinfects organic matters, fixing carbonic acid and sulphuretted hydrogen, and decomposing hydrosulphate of ammonia. The permanganate of potass. is a most energetic oxidizing agent, decomposing sulphuretted hydrogen, destroying organic matter, and acting upon all fixed compounds with which it comes in contact.

It may be remembered that M. Decaisne employed it in dissecting rooms, but that M. Gosselin, in 1864, reported that it was not adapted for this purpose. Chlorate of potassi may be used to disengage chlorine in places that are not easy to reach by other means. This is a capital plan for cesspools and middens.

Chloride of lime acts by the chlorine it sets free, and chemically decomposes most foul gases. M. Decaisne considers it the best disinfectant of offensive gases. Does it also, mixed with metallic oxides, act by disengaging oxygen as has been asserted? M. Gille doubts this. He also observes that, although chloride of lime destroys offensive gases, it does not arrest putrefaction, but by the lime set free, hastens the process.

Hydrochloric acid is employed to disinfect dog-kennels. Vessels containing it left open, completely destroys the offensive gases that abound where a large number of dogs are kept. This plan is adopted in the Veterinary School of Brussels.

The action of carbolic acid, M. Gille says, is not chemical. He accepts what is commonly called the germ theory, inasmuch as he says the acid prevents germs from provoking putrefaction. He also thinks it will hinder the formation of miasms, and is, therefore, a good preventive of epidemics. It is thus to be seen that all the disinfectants are good, but that they should be used with discernment, a selection being made according to the products we wish to get rid of.