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CANADA

MEDICAL & SURGICAL JOURNAL

FEBRUARY, 1887.

Original Communications.

NOTE ON CHEMICAL GALVANO-CAUTERY.

By William Gardner, M.D.,
Gynæcologist to Montreal General Hospital; Professor of Gynæcology, McGill University.

One of the most interesting and instructive experiences I had during the past summer was an afternoon spent with Dr. Apostoli of Paris at his gynæcological clinic. A pupil of Tripier, the doctor is tolerably well known as an earnest and enthusiastic worker with that most powerful and efficacious, but still imperfectly understood, remedial agent, electricity. It may be said with perfect truth that all, or nearly all, we know of electricity in the treatment of the diseases peculiar to women has been worked out by Tripier and Apostoli, but it must be admitted that the pupil now outshines the master. By the kindness of Dr. Apostoli I had ample opportunity to verify the results he claims to obtain in the treatment of uterine myoma by this agent. These results are: arrest of hemorrhage, almost always the most urgent symptom, diminution of pain, and finally reduction of size, varying from one-fifth to one-third of the size of the tumor. So impressed was I that I ordered from M. Gaiffe, through Dr. Apostoli, a set of the necessary appliances, which I expect in a few days, when I hope to begin its employment in a class of cases which often give much anxiety in practice. Shortly after reaching home I received from the doctor a *resumé* of a paper read by him at the last meeting of the French Association for the Advancement of Science, with a request that I should translate it for the Canada Medical and Surgical Journal. This

translation I now offer to the readers of the JOURNAL. It concerns the treatment of a class of cases much more common than myoma.

A New Treatment for Chronic Metritis and Endometritis by Intrauterine Chemical Galvano-Cautery. By Dr. G. APOSTOLI, Paris.

Intra-uterine therapeutics tend more and more, and with much propriety, to replace the old methods of application to the exterior of the uterine cervix. The new procedure which I instituted four years ago for the electrical treatment of fibroma I have employed with the same advantages and equal success in the treatment of chronic metritis, especially when the latter condition complicates endometritis. To a lesion which, before invading the uterine parenchyma, commences in the mucosa and is confined to it for some time before involving the peripheral structures, I oppose a treatment which acts by cauterizing the whole of the more or less diseased mucous membrane; for the modern methods of curetting, intra-uterine injections, and purely chemical intra-uterine cauterizations, I substitute a galvano-chemical treatment less heroic, easily localized, the dose easily regulated, well borne in all cases, and not liable to be followed by inflammatory reaction, if the remedy be properly applied. The immediate chemical action, which consists in progressive destruction of the mucosa, is soon followed by a process of regression and disintegration, which favors the absorption of exudations and hyperplasia. To properly conduct the operation it is necessary to be furnished with and understand the use of the following electrical appliances:

1. A medical intensity galvanometer, which I first had constructed to indicate 200 milliampères. Only by this appliance may the intensity of current employed be exactly ascertained. The great advantage of this precision over the old method of estimating the intensity by the number of cells is obvious. Thus a new pair of elements is, of course, more active than one in use for some time.

2. A constant current battery of sufficient size of elements to last a long time and not grow weak to any great extent by use,

and which can furnish from, say, 30 cells a current of from 100 to 200 milliampères. The best cabinet battery is certainly the Lechanché; a good portable battery of moderate size is as yet a thing to be desired. Meanwhile the bisulphate of mercury immersion battery meets tolerably well the needs of practice.

3. An intra-uterine electrode sufficiently long for application to the whole length of the uterine cavity of a material such as platinum, which is not acted on by acids and furnished with an insulating tube to protect the vagina; the best material for this purpose is celluloid.

4. A neutral electrode, which, applied to the abdomen, permits of the transmission of a very intense current without pain, heat, or the formation of eschars; the best is wet clay, which I proposed in 1882.

5. Conducting cords sufficiently pliable to be convenient of use and strong enough to prevent any danger of painful interruptions of the current from their being broken.

The physician being in possession of the proper appliances must strictly conform to a technique of operation which may be definitely indicated as follows:

1. A tepid antiseptic vaginal injection should be administered and the woman placed in the dorsal position, the knees drawn up.

2. The battery being brought into action and the galvanometer interposed, the abdominal clay electrode is placed *in situ*, the woman being warned that it is always cold; and the rheophores attached.

3. The intra-uterine electrode, previously warmed and disinfected, is slowly and cautiously introduced, with care that the vagina and vulva are protected by the insulator.

4. The intra-uterine galvano-cautery is to be negative in the hemorrhagic cases and positive in the other cases.

5. The principle which should govern all such intervention is never to surprise the uterus and never to make a too painful application. Now it is important to know that in a certain small proportion of cases (3 to 5 per cent.) the uterus is irritable. Such are certain hysterical subjects who bear the current badly, although of slight intensity, and in such small doses alone must be administered.

6. It is necessary in all cases to begin with a weak current, slowly increased in intensity, and to stop short of producing more than slight pain, to gradually accustom the patient to its effects and so overcome all physical and moral resistance.

7. Gradually in two or three sittings the intensity of the current is to be increased until in the majority of cases 100, 150 and if necessary 200 milliampères have been attained. The intensity is to be proportioned and regulated by the tolerance of the patient and the extent, gravity and duration of the lesion.

8. The duration of the application, from five to ten minutes, must, like the intensity, be regulated by the extent of effects it is desirable to obtain.

9. The sittings may be held weekly or tri-weekly, according to necessity, and the physician must regulate the number and intervals of the applications according to the urgency and necessity for intervention.

10. The patient must be made to rest in all cases several hours after the application. Such rest is necessary for the safety and efficacy of the method.

11. Antiseptic vaginal injections of corrosive sublimate or carbolic acid are to be prescribed for administration morning and evening.

This simple and safe treatment, a true therapeutic hysterometry (veritable hysterometrie therapeutique), is none other than a molecular galvano-chemical curetting, acid or basic, according to the case, which excites the formation of a new mucosa and constitutes a kind of intra-uterine issue, the action of which we may prolong or vary as we please. Its beneficent effects which I have verified in a large number of patients are speedily obtained from the first sittings, become rapidly more marked, and soon lead to a cure. Confinement to bed or any additional treatment is unnecessary. As compared with surgical curetting, it has the advantage that it can be localized and regulated as regards dose or amount, at pleasure, according to the necessities of the case.

EXPLORATION OF THE KIDNEY IN A CASE OF TUBERCULOUS PYELITIS.

By Francis J. Shepherd, M.D.

The following case is of interest, as showing the difficulty of diagnosis in the early stage of tuberculous disease of the kidney. All the symptoms at first were referable to the bladder, and the amount of pus in the urine was small. In many such cases the prominent early symptom is frequent micturition, and this may or may not be accompanied by pain, which, when excessive, may be due to tuberculous deposits in the bladder itself. When the man first came under my notice I considered that the disease was one of the kidneys and not of the bladder, because of the small amount of urea excreted daily and the absence of mucus from the urine. The personal and family history of the patient did not point to tuberculous disease, and the amount of pus was so small that it might easily have originated in the bladder. Careful examination revealed no tumor in the region of the kidney, but there was always discomfort and pain in the left lumbar region. Later on, when pus became more abundant and the amount of urine less, it was evident that there was some destructive disease of the kidney going on, due either to the presence of stone or tubercle. The sudden diminution of the flow of urine showed that both kidneys were inefficient, and it was decided to cut down on the tumor which was now present in the region of the left kidney in the hope of finding a stone which was preventing the outflow of urine. When the operation was performed the man was in an uræmic condition, and evidently had not long to live.

The operation is instructive, and this lesson is to be learned from it, viz., that no mere external examination of the kidney can satisfactorily determine its condition, and that in every case an incision should be made into the organ and the parts explored with the probe or finger. The aspirator failed to evacuate the contained pus, because it was so thick and tenacious, although a previous exploration had revealed its presence in small amount. In cases of tuberculous pyelitis the disease is often symmetrical,

and it would be folly to perform a nephrectomy without a knowledge of the condition of the opposite kidney. Such cases demand a nephrotomy with subsequent drainage until the condition of the other kidney is ascertained. If it is found to be healthy, nephrectomy may be afterwards performed with the object of removing a suppurating organ and ridding the patient of foci of disease. The condition of the other kidney is easily ascertained after a nephrotomy, for all the urine from the incised and drained kidney would come out of the lumbar wound, and that which was passed through the ordinary channel would necessarily come from the other kidney. If the urine is large in amount and of a healthy character, this is partly good proof that the other kidney is performing its functions properly.

For the report of the following case I am indebted to my late house surgeon, Dr. H. S. Birkett:—

S. B., aged 38, was admitted into the Montreal General Hospital on the 12th of July, 1886, complaining of frequent and painful micturition. These symptoms first appeared three months before, and he had been treated by several physicians for catarrh of the bladder. Had always been healthy up to three months ago, and was formerly stout, but had lost considerable flesh lately. He made water every few minutes, night and day, and each time the pain was severe. It commenced in the small of the back, on the left side, and extended down the groin, along the urethra to the point of the penis. He complained of continuous dull, aching pain in the left lumbar region. Had never passed any blood; urine contained a small amount of pus, but no mucus, specific gravity 1.005, contained albumen, and only two grains of urea to the ounce. Quantity passed daily, 60 to 70 ounces. No tumor could be made out in the lumbar regions. Bladder sounded for stone, with negative result. No cough or expectoration, and lungs and heart perfectly normal. From the condition of the urine and general symptoms, Dr. Shepherd concluded that he was suffering from some affection of the kidney. He remained in the hospital some weeks, but left no better than he entered, treatment having no effect whatever.

Dr. Shepherd afterwards attended the man at his own house, and the symptoms still continued as before, viz., frequent and painful micturition, with pus in urine. The quantity of pus in urine now rapidly increased and the urine diminished. He passed 20 to 30 ounces of urine daily, 30 per cent. of which was pus. He also became rapidly emaciated, and there was occasionally an elevation of temperature in the evening. The patient went to some mineral springs in the neighborhood, and was not seen for several weeks, not, in fact, till the latter end of September. He was then much emaciated, and seemed to be in a stupid, drowsy condition. He was passing only 20 ounces of urine daily, and of that 50 per cent. was pus. A tumor could now be distinctly made out in the left lumbar region. It was aspirated, and at first only a little thick pus was drawn off and then thin bloody serum.

He was again admitted into hospital Oct. 11th, 1886, and the day after admission passed only six ounces of urine, from which all pus had disappeared. His condition was serious; he had well marked uræmia, and Dr. Shepherd, thinking that the arrest of urine might be due to a stone blocking the ureter, determined to cut down and explore the kidney, a proceeding which he thought could do no harm and might do good. The horizontal lumbar incision was practiced, beginning posteriorly at the edge of the erector spinæ muscles and extending downwards and outwards below the 12th rib. The kidney was soon reached and found to be enormously enlarged and non-fluctuating. The finger easily went through some tissue to the depth of one inch at the upper end. A large aspirating needle was thrust in several directions into the kidney, but failed to reach either a stone or pus. From the great enlargement and general appearance it was thought a neoplasm existed, and considering that the man was secreting only six ounces of urine daily, the conclusion was arrived at that the other kidney was also diseased, so a drainage-tube was introduced and the wound sewed up. The man recovered from the immediate effects of the operation, but died comatose that night. No post-mortem examination was allowed, but after death the wound in the lumbar region was reopened and the kidney taken

out. At the same time the kidney of the other side was searched for, but could not be found; it had probably been affected by a similar disease and had undergone atrophy. On cutting through the greatly enlarged kidney numerous pockets of pus were found and some large cysts distended with serum. The cortical substance was studded with small suppurating points, and was much thickened. Dr. Wyatt Johnston examined the case, and came to the conclusion that it was a tuberculous kidney; tubercle bacilli were found in large numbers.

OBSTETRICAL NOTE—FŒTAL HEART-SOUNDS PROPAGATED THROUGH THE BREECH.

By J. C. Cameron, M.D.

A few days ago a large, strong primipara was confined in the Maternity Hospital, whose case presents some unusual and interesting points. By external examination it was ascertained that the vertex was presenting in the second position. The fœtal heart was heard midway between the right anterior superior spinous process and the umbilicus at the rate of 136 to 144 per minute. A fœtal heart-sound was heard also at the fundus, well over to the left, somewhat weaker and about eight beats less in frequency. Per vaginam, the diagnosis of second position of vertex was confirmed. The observations were verified by several independent observers, but a differential stethoscope not being available, it was impossible to determine positively whether the two fœtal heart-sounds were really synchronous or not. Notwithstanding the double heart-sounds, there was but one fœtus present, and that very large. The causation of this double fœtal heart-sound is interesting and worthy of note. Owing to the position of the child in utero the left side was uppermost, bringing the heart close to the abdominal wall. The fœtal heart-sounds heard were of maximum intensity in the usual situation, and in addition were propagated through the breech to the fundus, high up on the left side. Had the fœtus presented in the first or any other position than the second, this peculiar transmission of the fœtal heart-sounds would not have taken place. The difference in rate was probably due to the uterine contractions, which were frequent and violent.

QUARTERLY RETROSPECT OF OBSTETRICS AND GYNÆCOLOGY.

PREPARED BY WM. GARDNER, M.D.,
Professor of Gynæcology, McGill University; Gynæcologist to the Montreal General Hospital.

Beitrage zur Castrations-frage, Contributions to the question of Castration (Removal of the Uterine Appendages.)—In a long paper under this title in the *Archiv f. Gyn.*, Bd. 29, Hft. II, based on twelve operations for myoma and ten for neuroses, Prochownick of Hamburg discusses very fully this operation, than which, perhaps, no subject within the scope of gynæcology has been so much discussed during the past year. Prochownick's contribution is a model of what the reports of such cases ought to be. Every case is fully described in all its features: conditions previous to operation; description of operation; macroscopical and microscopical examination of parts removed; the immediate result of operation; and the condition of the patient several months afterwards. Unfortunately for the prospects for arriving at a correct appreciation of the value of this much-performed operation, some of the operators of large experience furnish us with very meagre or no details on several of the points indicated. In all cases the patients had been previously treated for a time—in some, months or years. It is worthy of note that in nearly all the myoma-cases the appendages were more or less diseased. This has been a very common experience in this operation, and inasmuch as similar morbid conditions of ovaries and tubes have been found when these organs have been removed for intractable uterine hæmorrhage in the absence of myoma uteri, it is beyond a doubt that the condition of the appendages causes hæmorrhage as well as the tumors to which that symptom is so universally credited. Of the myoma cases, seven disappeared, four were much reduced, and one was extirpated. The hæmorrhage, the chief indication for the operation, was stopped in six, much lessened in four, and recurred in one. All but one recovered. The fatal case was from cerebral embolism—a not very rare mode of death in such tumors. In the ten so-called neurotic cases there were, before the operation,

evidences of enlarged, sensitive and painful, adherent and otherwise diseased ovaries and tubes, producing varying, sometimes severe, pelvic symptoms, disordering menstruation variously, and accompanied with manifold reflex, nervous and digestive disturbances. Of these, four were cured, three improved, and three not benefited.

The German Society of Physicians and Naturalists held their annual meeting for the past year in the capital. In the gynæcological section many interesting papers were read and specimens exhibited. Czempin, first assistant to August Martin, read a paper on the *Relation of Diseases of the Uterine Appendages to the Uterine Mucosa*. Of diseases of the uterine adnexa, which may induce disease of the uterine mucous membrane, the following were enumerated:—

1. Recurrent, acute or subacute disease of ovaries, tubes, or of both combined.

2. Exudative parametritis.

3. Pelvi-peritonitic irritation from cicatrization of the ligaments after ovariotomy and salpingotomy.

4. Certain tumor-formations of the appendages, particularly pyosalpinx and ovarian sarcoma.

Each of these morbid states may induce those diseases of the uterine mucosa which lead to atypical bleedings, the character of which will to some extent depend on the particular cause. In pyosalpinx, ovarian sarcoma, and certain other diseases of tubes and ovaries, a glandular and interstitial endometritis is set up. In other cases the endometrium undergoes little or no change, but from arterial congestion bleeding is set up.

Hegar, Kaltenbach, Schröder, Martin, Löhlein and others took part in the discussion, and it was pointed out by some of the speakers that the diseases mentioned may exist with few or no symptoms, and that their presence must not always be taken as indication for surgical interference.

Castration for Epilepsy was the subject of a paper by Schramm of Dresden. He said that in comparison with other forms of spasm, castration in epilepsy and hystero-epilepsy yielded less favorable results, but that when epilepsy has a close relation to

the menstrual process the operation is a legitimate one and of great value. He adduced two severe cases operated on respectively one year and one and a half years previously, neither of whom had had any fits since the operation.

Schröder read a paper on *Castration for Neuroses.* He said that Hegar very properly drew a distinct line between the removal of diseased ovaries and the removal of these organs with the object of inducing menopause. The indications in the first case are clear and present no difficulties in arriving at a conclusion. The ovaries are removed because they are degenerated, constituting large or small tumors, but other pathological conditions, as chronic oöphoritis, also require operation. It only one ovary be diseased, it alone requires removal, and perhaps under certain circumstances only a part of it. It is quite otherwise when the object is to induce menopause. Then both ovaries must be completely removed, and the object is attained when the organs removed are healthy. He did not agree with Hegar that the appendages are to be removed only when diseased. There is a marked difference in the object to be attained by the operation when it is performed for the removal of diseased ovaries and when done for myoma of the uterus. In the latter case the ovaries, even when healthy, are removed to produce an influence on another diseased organ. In the same way organs, it may be healthy, are removed to get the influence on a general neurosis. The author pointed out that severe neuroses often subside at the menopause, both natural and induced by castration, without any evidences of disease in the ovaries. He had operated in twelve cases for this indication. Three cases after intervals of 8½, 7 and 5 years respectively had given a most favorable result. Two of these had married. The others were too recent to judge of results, which always follow slowly.

Sänger of Leipzig read a paper on *The Technique of Supravaginal Amputation of the Myomatous Uterus.* He described as "intra-peritoneal encapsulation" a procedure he had recently adopted in a case of subserous and intra-ligamentous tumor, with the best results, and which consisted in encircling the pedicle with an elastic ligature left *in situ* and then suturing the parietal

peritoneum of both sides to the posterior wall of the stump, which was thereby excluded from the peritoneal cavity. The author strongly recommended the leaving of the elastic ligature, which he had practised in ten cases. In only two cases in which also Thiersch's leaden ring to secure the elastic was employed, both ligature and ring were subsequently expelled through the cervix. The only fatal case was one in which the elastic was removed before closing the abdomen.—(*Archiv f. Gyn.*, Bd. 29, Hft. II.)

Acute Peritonitis; Operation and Recovery. By John W. Taylor, F.R.C.S., Surgeon to the Birmingham and Midland Hospital for Women.—This is the title of a short paper embodying the report of a case of remarkable interest alike for the accoucheur, general practitioner and surgeon. The patient was confined on Sept. 28, 1886, by forceps. Three days after, pain and tenderness in left iliac region and fever. From this time till the end of October, intermittent feverish attacks with pain as described. Ill-defined resistance on left side of cervix. On November 11th, while lying quietly in bed nursing her child, sudden pain in left side of belly, with vomiting. Pain all night. Dr. Phillips saw her at 12 noon next day and diagnosed escape of matter. A few hours later Mr. Taylor saw her with a view to opening the abdomen. Distension and tenderness of abdomen; ill-defined, acutely tender swelling behind uterus; temperature 104°, pulse 140. The diagnosis was rupture of an abscess, causing peritonitis. Operation was advised and consented to. Next morning Mr. Taylor opened the abdomen. Sero-purulent fluid welled up into the incision. The appendages on the left side, together with the intestines, omentum and uterus, were matted together in a mass, in which it was difficult to distinguish the different structures. The omentum and tube were first differentiated, and the Fallopian tube, much thickened and inflamed, was brought to the surface. The corresponding ovary was adherent to the top of the uterus and was carefully separated, when both tube and ovary were withdrawn outside the incision. The ovary contained an abscess which had broken by two small ulcerated openings, from which thick yellow pus was freely oozing. Ovary and

tube were tied with silk and removed. The right appendages were healthy and let alone. The cavity was washed out and drained. The patient did well. Drainage-tube removed on the third day. Fifteen days after operation the patient was quite convalescent. Pulse and temperature normal and appetite good. —*Brit. Med. Journal.*

The lesson taught in this recital of a case is obvious. The case mentioned in my paper on "Glimpses of Abdominal Surgery in Europe," operated on by Mr. Lawson Tait, is pertinent to this subject.

On the 9th June last Dr. Grigg, physician to Queen Charlotte's Lying-in Hospital, London, read before the British Gynæcological Society a paper on the *Dangers arising from Disease of the Uterine Appendages in Childbed.* The paper was based on the reports of four cases of death speedily following delivery, in all of which the uterine appendages were found to be diseased. Dr. Grigg began by remarking that a fatal result from disease of uterine appendages has been pointed out from time to time by various writers. Abscess of the ovary, ovarian cyst, or pyosalpinx have been recognized as sources of puerperal mischief, but they are not regarded as important factors in childbed mortality. This Dr. Grigg believed to be due to the fact that it is rare for a post-mortem examination to be made on a woman dying in child-bed, in public or private. It is due to this paucity of post-mortem examination that the gravity of such diseases with reference to child-bed has not been pointed out. The whole mortality of 548 deliveries in eight or nine months at the Queen Charlotte Hospital was five, and of these four presented in brief the following conditions :—

Case 1—Suppuration of a cyst of the right ovary as large as the closed fist. Rupture of the cyst. Lymph and greenish-yellow pus, two to three pints, in peritoneal cavity.

Case 2—Left-sided pyosalpinx and suppuration of left ovary of old standing. Recent suppuration behind pelvic peritoneum.

Case 3—Acute general peritonitis ; much turbid effusion, with flakes of lymph. A ruptured thin-walled cyst of right ovary of size of a fœtal head.

Case 4—Evidence of old disease of the broad ligaments, cicatricial contraction of the broad ligaments. Kidneys, each, 7½ ozs., cortical coat increased in thickness and very soft; ureters and pelves of kidney much sacculated and dilated. Dr. Allchin, the pathologist of the hospital, and Dr. Grigg agreed that probably the condition of kidneys and ureters was due to the old standing disease about the uterus and ovaries, causing pressure.

Dr. Grigg, in conclusion, justly remarks, "On reviewing these cases, one cannot help feeling that perhaps disease of the uterine appendages might account for many of the inexplicable cases of so-called sporadic puerperal septicæmia which seem to defy every conjecture as to their origin. Should subsequent experience confirm his view, it will place the importance of recognizing diseases of the appendages in another light, and it will be a strong argument in favor of their removal when found diseased, and it will require those who condemn the operation to reconsider their position."

The President (Mr. Lawson Tait), in closing the discussion, remarked that Dr. Grigg's paper was of great value, because it was a record of four out of five deaths, the entire mortality in the hospital in a considerable period of time, and in all four diseased conditions of the uterine appendages were present, and more than sufficient to account for deaths which, had they not been fully investigated, would certainly have been put down in the category of puerperal septicæmia. This phrase was nothing but a huge cloak, expressing our ignorance and limiting our opportunities for investigation. He believed that two at least out of these four patients, perhaps even three, might have been saved by operative interference. The further value of the paper consists in the fact, which was indisputable, that cases of chronic inflammatory disease of the uterine appendages were not only far more common than was usually supposed, but they were frequently fatal.—(*Brit. Gyn. Jour.*, Nov. 26.)

No remark of mine can in any way add to the importance of or emphasize the lessons to be learnt from this recital of cases.

The Use of Anæsthetics in Labor.—A paper on this subject was read by Dr. E. L. Partridge before a meeting of the section

in Obstetrics of the New York Academy of Medicine, on the 23rd December last. The author remarked that his paper was based chiefly on personal experience. He asked the question: Shall an anæsthetic be used in labor? If so, under what circumstances and what agent should be employed. He advocated anæsthetics in all operative procedures in midwifery, and thought they might be used in many natural labors with advantage. He would not use it in the first stage except in so-called forced labor, as by Barnes' dilators, etc. He would avoid anæsthesia in the early part of the second stage, because it to some extent modifies uterine action. He would wait for the suggestion of the patient before using it to relieve pain. In a phlegmatic woman or one who has herself well under control, he would not use it. With reference to the objections made to anæsthesia in midwifery, he could conceive that it increased the liability to hemorrhage, while the liability to puerperal fever could not be increased unless by bungling operators. Subinvolution and chronic uterine disease might possibly be a little more apt to occur after the use of an anæsthetic. Chloroform is the agent he usually employs in midwifery, remembering that it is to some extent dangerous, but when women have died from the effects of chloroform during labor it has been carelessly administered. His method of administration is never by a cone, but by a crumpled handkerchief in the bottom of a small tumbler, on which a few drops of the drug are poured. He would not feel safe in giving chloroform to a woman who was already considerably under the influence of chloral. An objection to chloral in the first stage is that the accoucheur must wait until its influence has passed off, and thus it might interfere with the use of chloroform in the second stage. He believed it proper to combine nitrite of amyl with chloroform (the former being an antidote to poisoning by the latter), in the proportion of ten drops to the ounce. He would never administer any anæsthetic without the consent of some other person than the woman who was in labor.

In the course of the discussion which followed, Dr. P. F. Mundé stated that he uses chloroform and does not believe in chloral. One very important point was never to raise the woman

up till she had fully recovered from the influence of the chloroform. Dr. W. R. Gillette uses chloroform given in the same way as Dr. Partridge gives it, and mentioned, as an advantage, that when the administration is suspended the glass can be inverted over a plate, the vapor retained, and so the unpleasant effects on the attendants avoided. Dr. H. J. Garrigues uses chloral with but few exceptions in every case of labor. When the os does not dilate well, and there is much pain, he gives it at intervals of half an hour till the patient sleeps. Sometimes he uses, under the same circumstances, morphia or opium. He never uses chloroform in the first stage of labor, and far less nowadays in the second stage than formerly. He always did without it when he could. It protracted labor, and was dangerous. With reference to post-partum hemorrhage, and for an important operation, as forceps-delivery, he always uses ether. There are two very important contra-indications to the use of ether—namely,·(1) the slightest quantity of albumen in the urine, and (2) the presence of any affection of the lungs.—(*N. Y. Med. Record*, Jan. 8, 1887.)

The Inflated Ring in the Treatment of Ectropion, with Catarrh of the Cervix, Stubborn Retroflexions of the Uterus, and Prolapse of the Ovaries and Tubes.—This is the title of a paper by Dr. Sara E. Post in the *N. Y. Med. Record* for Jan. 15, '87. Dr. Post calls attention to the objections and difficulties in carrying out the ordinary and very valuable treatment by tampons, of the affections mentioned in the title of the paper. That these affections are very common and very tedious and difficult of cure, while they give the sufferers a great deal of distress, is well known. The inflated ring in many cases gives the patient an easy and comfortable support, which she can remove at night and while she uses her douches, and replace by herself. This pessary is well-enough known, but probably has in recent years been a good deal neglected. Dr. Post reports a number of cases treated by the inflated ring, and dilates on the results obtained. Cervical catarrh has disappeared. This has been fairly uniform. Backache has also disappeared. The menstrual periods have been shortened. An occasional profuse leucorrhœal acrid dis-

charge has taken place from the vagina, which the authoress believes to have come from the tubes. Their elevation by the pessary has enabled them to be emptied through the uterus. Retroflexions reduced by the inflated ring-pessary have not always or at all events immediately returned on removing the pessary. In all the cases detailed by Dr. Post the inflated ring without the tube attachment was used. These rings have a lump of wax on the inner surface at one point. Through this wax the ring is inflated or some of its air withdrawn by a hypodermic needle. When the needle is withdrawn the wax is compressed to close the opening. Dr. Post insists on the importance of using the ring only partially inflated, as then it moulds itself to the vagina and cervix. If used fully inflated, it causes irritability of bladder and a feeling of weight in the perineum. The ring must be removed frequently, and at night should be placed in a weak disinfectant solution or weak soda and water. It is inserted in the knee-elbow position, and this will be easiest managed if it be folded into a spindle-shaped mass. It requires reinflation every one or two weeks, and removal every one to three months.

The authoress thinks that many of the good results are obtained by the pressure on the cervix, which reduces hyperæmia and so removes erosions, catarrh, and too profuse menstrual flow. Objections to this pessary are the somewhat foul discharge and excoriation of the vagina, but these can be largely removed by faithful douching and removal at night. Such objections are lightly regarded by the patients as compared with the relief it affords.

The American Gynæcological Society held its eleventh annual meeting at Baltimore on the 21st September. Dr. H. P. C. Wilson of Baltimore read the first paper, the subject being *Division of the Cervix backwards in some forms of Anteflexion of the Uterus with Dysmenorrhœa and Sterility.* The cases in which he specially recommended the operation were the following:

1st, Those of anteflexion of the uterus with an elongated cervix, where the body is bent upon the neck or the neck upon the body, or where they are bent upon each other, thus forming a more or less acute angle at the internal os.

2nd, Cases of less acute flexion, but where the cervix is hyperplastic and indurated, sometimes dense as cartilage and blue in color.

3rd, Cases in which there is a hard unyielding band encircling and constricting the internal os, through which the probe passes with difficulty, and gives to the hand the sensation as if passing over rough and dense cartilage, while the finger of the other hand in the sulcus, between the body and the neck in front, gains the impression of a strong cord tied around the uterus at the point of junction between the body and the neck.

In each of these conditions the author thinks the knife ought to be used in preference to other modes of treatment. Nearly all such patients are sterile. No dense, unyielding cervix ought to be forced open. All ill results from cutting operations are the result of improper after-treatment. A clean cut into the cervix he believed to be no more dangerous than a similar cut elsewhere, and nothing to correspond to that from steel dilators or stems. He believed that the patient should be allowed thoroughly to recover from the operation, which usually takes about a month; at the end of another month the author begins the local treatment of painting the interior of the uterus two or three times a week, followed by glycerine tampons. This he thought should not be continued for more than one or two months at a time. He had performed the operation 400 times, and never lost a patient whose death could be attributed to the operation.

Ergot after Labor.—This was the title of a paper by Dr. John Goodman of Louisville, Ky. He said the custom to give ergot immediately after the completion of labor had become general. The objects aimed at were to prevent after-pains, to promote involution, and to prevent post-partum hemorrhage. The author said that if the drug were incapable of doing harm, and there was evidence that it would accomplish either of these purposes, its use should be continued. But if it was deleterious, we must reject it or restrict its use. He related two cases of tetanic spasm of the uterus produced by small doses of ergot, in one of which septicæmia developed. He thought it absurd to suppose that it could hasten involution, as that is a natural process re-

quiring a certain length of time to accomplish it. In his opinion it should be laid down as an invariable law never to give ergot at the close of the third stage unless the danger of hemorrhage was imminent, and then by hypodermic injection of ergotin was the best method.

The President, Dr. Reamy, agreed in the main with the author of the paper. Drs. Goodell and Parvin believed in the value of ergot, and are in the habit of giving it frequently.

Electricity in Gynæcological Practice was the subject of three papers—by Dr. Engelmann of St. Louis, by Dr. W. H. Baker of Boston, and by Dr. John Byrne of Brooklyn, respectively. Dr. Byrne confined his attention to galvano-cautery in the treatment of procidentia uteri by galvano-caustic amputation of the cervix and linear cauterization of vesical or rectal protrusions, or both. He strongly advocated this method which had yielded him excellent results. He ventured the explanation that some process analogous to ordinary inflammation is brought about by the agency of radiant heat, whereby a permanent shrinkage of some, and complete obliteration of other blood-vessels and lymphatics for a considerable distance beyond the line of actual cauterization is caused, that a condensation of cellular tissue must necessarily also take place, as in this manner dynamic forces, which in health help to maintain the uterus and other parts in normal position, become completely restored or greatly modified.

Dr. Engelmann said that except in the hands of a few men there is very little that is definite about the methods ordinarily employed in the application of electricity. The causes of failure were insufficient knowledge of instruments, lack of localization, concentration, total want of dosing and measurements, etc. Operators had been in the habit of guaging its effects by the number of cells, and he believed that the currents had been too weak to be effective. He described Apostoli's method of using electricity, and exhibited electrodes, battery and galvanometer. He believed that the only definite contra-indication to the use of electricity was severe acute inflammation. He mentioned a great variety of gynæcological affections in which he had employed the agent with great benefit.

Dr. Baker dealt chiefly with the use of electrolysis in fibroids of the uterus. He credited Dr. Kimball of Lowell with having first used the agent for this purpose. Dr. Baker uses very much smaller needles. His rules are the following:—

1. It should not be used about the menstrual period.

2. The patient should be under the influence of an anæsthetic.

3. Electrolytic needles for both positive and negative poles should be used.

4. They should be sharp and thoroughly clean.

5. The needles should be buried in the tumor sufficiently near to each other, so that when the current is introduced it will not be diffused to other parts.

6. The needles should not be too nearly approximated.

7. When both needles are properly placed in the growth, it matters not whether the positive or the negative needle is the internal one.

8. After insertion, a current of four to six cells is first used, gradually increasing to eighteen or thirty cells, the intensity being much more exactly regulated by the galvanometer.

9. The length of time, from ten to twenty minutes, to be determined by the character of the pulse, which should be continually felt, and when found to be diminished in frequency below the normal, the current should be either discontinued or the number of cells decreased.

10. No interruption of the current during the application.

11. Gradual diminution of the current before disconnecting the electrode.

12. The current should be cut off before the removal of the electrodes.

13. The application should never be made at the surgeon's office and the patient allowed to go home after coming from under the influence of ether.

14. After the application, put the patient to bed, where she should remain a week.

Dr. Baker also spoke of the use of the galvanic current in the treatment of chronic cases of circumscribed perimetritic products. As long as there is any acuteness of the inflammatory

process, it is hazardous to attempt manipulative interference. He believes that in electrolysis we have a valuable agent to assist absorption and promote cure. His experience, however, has been limited to a single case, but in which the result was so marked that he gave it in detail. His conclusions were :

1st, That electrolysis is a useful agent in the treatment of certain cases of fibroid tumors of the uterus, as well as chronic circumscribed perimetric affections.

2nd, In the treatment of fibroid tumors of the uterus by this agency, frequent applications are not necessary.

3rd, Cases of perimetric affections treated by this method should be selected with care in regard to the absence of all acute symptoms.—(*Am. Jour. Obst.*, Oct. 1886.)

A CASE OF THROMBOSIS OF THE LEFT VENTRICLE OF PECULIAR INTEREST.

Some time since Dr. Geo. Ross presented to the Medico-Chirurgical Society of Montreal a short account of a peculiar and puzzling case which ended fatally. The heart was shown to the Society, and the following is the record that appeared in the proceedings :—

" *Thrombosis in the Left Ventricle of the Heart.*—Dr. George Ross showed a heart which had been removed by Dr. Johnston from a patient who lately died in the General Hospital. Both sides of the heart were greatly distended, and there was marked bulging of the wall of the left ventricle just above the apex. The cavities contained soft blood-clots. There was no clot in the pulmonary artery or its branches. On opening the left ventricle a firm, decolorized and apparently organized thrombus was found filling the spaces between the columnæ carneæ in the vicinity of the septum and projecting slightly into the cavity at a point corresponding to the bulging previously mentioned. The thickness of the thrombus exceeded that of the ventricular wall, which in places was reduced to one-fifth of an inch. A space between the thrombus and the heart wall was filled with a chocolate-brown fluid and the endocardium seemed to have disappeared. At some points the heart-muscle was pale and in part fibroid.

A small, firm, decolorized clot was also seen lying loosely behind the left coronary segment of the aortic valve; from this was prolonged a clot which completely plugged the left coronary artery. A small, firm clot filled the left auricle. Valves normal. Dr. Ross remarked that the patient was a strong, healthy girl, about 25 years of age, who came into the hospital to be treated for an ulcer of the leg, which was supposed to be of syphilitic origin. Suddenly she was seized with a violent pain in the left side of the chest and great difficulty of breathing; her pulse was almost imperceptible at the wrist, and she was in great distress. The dyspnœa and pain grew worse, and the patient gradually sank and died five days after the first seizure. Dr. Ross at first thought it was a case of pulmonary embolism, but was now at some loss to account for the symptoms."

Later, Dr. Mills made a communication, which, taken in connection with the above, the Society thought of such importance as to call for publication in a separate note, which is as follows:

It will be remembered that some time ago Dr. George Ross exhibited to the Society a heart with clots *in situ*, one of which was found to plug completely the left coronary artery. The symptoms of the patient were peculiar and difficult to explain. I ventured then to advance the view that these symptoms were traceable to the clot in the coronary artery, and that this clot explained the presence of the second one. I have since met an account of experiments that seem to me to confirm the view then advanced, and as the case is almost unique, I venture to call the attention of the Society to them.

(1.) Sée and others ligated the coronary arteries in a dog, and found that after two minutes the cardiac contractions gave place to twitchings of the muscular fibres, and ultimately the heart ceased to beat. Ligature of the anterior coronary artery alone is sufficient to produce this result.

(2.) Von Bezold and Erichsen obtained similar results in the rabbit. Ligature of one artery first affects the corresponding ventricle, then the other ventricle, and last of all the auricles. Compression of the left coronary artery causes slowing of the contractions, especially of the left ventricle, whilst the right one

at first contracts more quickly and then gradually its rhythm is slowed. The contractions of the left ventricle are also weakened, whilst the right pulsates with its usual force. It follows that as the left half of the heart cannot expel the blood in sufficient quantity, the left auricle becomes filled, whilst the right ventricle pumps blood into the lungs as usual. Œdema of the lungs is produced by the high pressure in the pulmonary circulation, which is propagated from the right heart through the pulmonary vessels into the left auricle. (*Samuelson and Grünhagen.*)

If I remember correctly there was also in the case in question some not very serious affection of the lungs.

Hospital Reports.

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

Ununited Fracture of Humerus—Resection and wiring of the ends of the bones, with good union at the end of three and a half months. (Under the care of DR. SHEPHERD.)

(Reported by DR. H. S. BIRKETT, House Surgeon.)

J. M., aged 35, admitted June 22nd, 1886, with ununited fracture of right humerus and inability to use arm. On 2nd January, 1886, while driving, was thrown out of his sleigh, which passed over his right arm, about the middle, and across his chest. Fracture of middle third of humerus was diagnosed. The arm was put up with four coaptation splints extending only two inches above and below the seat of fracture. Hand kept in a sling. The arm remained in this apparatus for two weeks, when it was taken down and plaster applied, which was also kept on for two weeks, and when it was removed, no union had taken place. The arm was then again put in splints, and remained so up to admission. At time of injury three or four ribs were broken, but nothing was done for them. Patient has always been healthy. No specific history. The right humerus is found fractured at middle third, the fragments being perfectly moveable over each other. Shortening of 1½ inches has occurred. There is considerable pain at site of fracture.

June 23rd.—Under ether, ends of bone thoroughly rubbed together and then drilled subcutaneously. The wound was dressed with dry dressing, and fracture put up in four coaptation splints with outside angular splint, all very firmly held together with cotton bandages, and patient sent home to return at end of six weeks.

Aug. 3rd.—Patient returned. No union.

Aug. 4th.—Again etherized, and an incision 3½ inches long was made on outside of arm, over seat of fracture, and ends of bone turned out, when the following condition was found: Upper fragment directed downwards and outwards; lower one upwards and inwards; direction of fracture very oblique from above downwards and inwards. The ends were smooth and rounded, and portions of triceps muscle and the musculo-spiral nerve were found between the fractured ends. Muscle and nerve were carefully dissected away; fractured ends of bones sawn off obliquely, brought together, and held in position by a strong suture of thick silver wire, which went through both fragments. The wound was then thoroughly irrigated with solution of bichloride 1–1500, and closed with a continuous suture of catgut; small drain at lower end of wound; dressed with iodoform and sublimate jute. The arm was then put up on an internal rectangular splint, with an external splint (Gooch's) reaching from shoulder to elbow, the whole kept in position by firmly applied gauze bandages.

Aug. 11th.—Dressings removed, and soiled only with serosanguineous discharge; no redness or swelling about edges of wound, and edges perfectly united. Sutures removed and tube shortened. Dry dressing and splint reapplied. Temperature 97° to 98½°. Patient allowed up.

Aug. 20th.—Dressings quite dry. Drainage tube removed. Line of incision perfectly united. Dressed as before. Temperature 98° to 99°. General condition of patient good.

The man went home for some six weeks, and when he returned, splints were taken down; fair fibrous union had taken place. The bones were rubbed together and again put up firmly in the same splints, and the patient told to return about end of November.

Nov. 25th.—Returned to-day. Humerus firmly united by strong bony union. Splints removed. Owing to the long period the man had been under treatment he had some stiffness of the elbow, but could move his fingers freely.

Remarks.—In this case non-union was due to the presence of muscular tissue between the ends of the bones, and union could not have possibly taken place by other than operative means. The pain which was supposed to be due to the "knitting of the bones," was caused by the pressure on the musculo-spiral nerve, which was between the ends of two fragments. The wire suture which united the sawn ends of the fractured bone was cut short and hammered down on the bone and left there. It did not cause the slightest inconvenience. This operation is one which, if performed with a strict regard to antiseptic, is devoid of danger and gives most satisfactory results, but it should not be resorted to till other measures (as drilling and rubbing the ends of the bones together) have been tried.

MONTREAL DISPENSARY—DEPARTMENT OF GYNÆCOLOGY.

CASES UNDER THE CARE OF DR. ALLOWAY.

CASE I.—C. D., aged 44, married 22 years. Has had five children at full term and four miscarriages. The last miscarriage was supposed to have been due to a fall at fourth month of gestation, but contents of uterus did not escape until the ninth month. Has a metrostaxis every two weeks, sometimes going as far as the third week, and lasting six days. Discharge sometimes profuse, and accompanied with pain in back and sides. Intermenstrual leucorrhœa. The menorrhagia has existed for the last five or six years, and has reduced her much in strength. She complains of constant headache and facial neuralgia, frequent micturition, and constipation.

Examination.—Perineum intact; vagina relaxed and spacious with uterus and pelvic floor low down. No para- nor perimetritis. Uterus enlarged $+1\frac{1}{2}$ in., but not retroverted. Cervix hypertrophied, intravaginal portion measuring two inches in length and one inch and a half across at external os. It is the seat of

extensive cystic hypertrophy, the hypertrophic disease extending half an inch back on the posterior lip. An old bilateral laceration is evidently here the cause of the hypertrophy. The corners have become cicatrized up, giving the cervix a truncated mushroom appearance. To do Emmet's operation of trachelorraphy in this case would be useless, as it would leave a considerable amount of diseased tissue still in the anterior and posterior lips. I therefore decided to do Hegar's operation (*Fig.* 1) or a modification of it (*Fig.* 2) of exsection of a portion of the cervix,

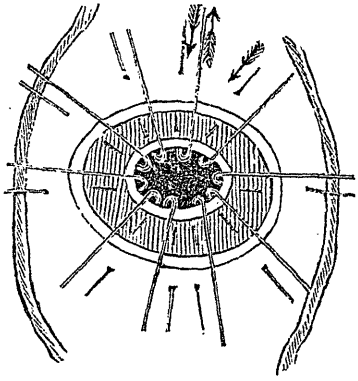

FIG. 1.—(From Hegar.)

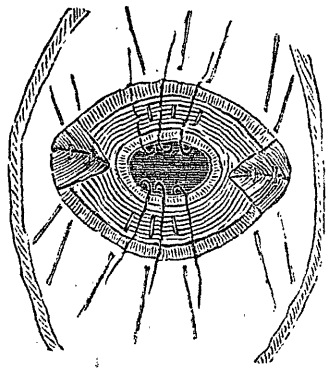

FIG. 2.

removing all of the diseased portion, as, by so doing the cervix is reduced in size, the nutrition of the organ is effected by reducing its blood supply, and involution of the whole organ is induced. Fig. 2 shows the manner in which the sutures are passed, the three centre ones in the anterior and posterior lips uniting the mucous membrane of the cervical canal to that covering the portio-vaginalis, and in this way retaining the patency of the os. One week before the operation the uterus is thoroughly curetted with the sharp instrument, after which carbolic acid is applied to the entire endometrium on an applicator wrapped with cotton.

The operation is done under ether, with the patient on her back in the lithotomy position, a Sims or Simons' speculum pulling the perineum well downwards in the hands of an assistant.

A Museaux double tenaculum is fixed high up in the cervical canal and the uterus drawn down to the vulva. With straight scissors the cervix is slit up on each side to a point where you wish to begin the exsection. With a scalpel the posterior lip is carefully dissected off; the anterior or upper lip is then rapidly removed in the same manner. These lips are trimmed off with rectangular curved scissors. The centre sutures are then passed and the corners closed by two sutures each, as shown in Fig. 2. Of the sutures I have used in this operation I prefer the silk-worm gut shotted, but silk or wire will do. It is well to perform this operation under constant irrigation of a weak antiseptic solution, no sponges or like material being necessary. After the operation the vagina is irrigated night and morning with an antiseptic hot solution and the patient kept in bed. On the eighth or ninth day afterwards the sutures are carefully removed and the patient further kept in bed for five or six days. In all such long-standing cervical laceration cases as the one I have described, we get much better results in the more perfect involution of the whole organ than from Emmet's operation.

CASE II.—A patient attending my clinic asked me to see a friend of hers at her house with the following short history:

Aged 26. Has had three children, the last one born fourteen days ago. She was attended by a midwife. Labor was normal; did very well until the tenth day, when she became chilly, complained of slight headache, loss of appetite, pain in back, and intense prostration. The feeling of prostration was what concerned the patient and her friends most. She could scarcely walk from her bed to the sofa without being thoroughly exhausted. She was very anæmic; had a rapid pulse and slight elevation of temperature (101°); tongue dry, and was constantly thirsty; bowels very loose, amounting to troublesome diarrhœa. She also complained of night sweats. On examining the abdomen there was not the slightest tenderness on firm pressure over fundus of uterus or broad ligaments. In fact her whole condition seemed to point anywhere but to the region of the pelvis for explanation of symptoms. As, however, I had

seen other cases of a similar nature during the second and third week of puerperal convalescence, I assisted the patient to place herself on a kitchen table in front of a good light. Placing her in Sims' position and retracting the perineum I got the odor of an infective purulent discharge. The cervix was small, seemed well involuted, and was neither lacerated nor eroded, showing that absorption could not be taking place from the vagina. I then fixed a volsella in the anterior lip of cervix and drew down the uterus. As I did so a gush of the most fœtid greenish pus escaped. Relaxing my hold on the volsella, the uterus went back to its anteflexed position and the flow of fluid from the uterus stopped as if a controlling cock had been turned. I then prepared a 1–2000 solution of corrosive sublimate in a fountain irrigator with a return-stream tube, and looking about for one of the two women who were with me a few moments before, to hold up the bag of the irrigator, I found myself and patient the only occupants of the room. The horrid stench of this pent-up pus was too much for them, and out of dire necessity they ran from the apartment, which was, I must say, a small and miserably ventilated one. With the aid of a nail in the window-sash I managed to wash out the uterus thoroughly until the return fluid was clear. I then removed the speculum and passed my left fore-finger into the uterus, at the same time pulling the organ well down with the volsella. At the position of the internal os I could feel a strong band or ridge stretching across the anterior wall. Over this ridge my finger passed directly forwards and downwards into the cavity of the body of the uterus, on the anterior wall of which I could distinctly feel two small velvety elevations about the size and thickness of a five-cent piece. The smoothness of the surrounding mucosa of the uterus within reach was very marked and interesting. These small elevations were no doubt the remains of portions of placental tufts left behind attached to the wall of uterus, but which would have done no harm in their melting-down process had there been free drainage. The fibrous ridge spoken of on the anterior wall almost invariably exists in these cases of extreme anteflexion. It acts as a most complete valve, preventing the ingress and egress of

fluids.* This band was, together with the extreme anteflexion (*Fig* 3), undoubtedly the cause of retention of the discharge.

FIG. 3.—Showing shape of uterus.

The uterus was converted into a veritable abscess which could discharge its contents only by a process of overflow, and occasional contraction of the body of the organ overcoming the valve-like obstruction at the cervix. (*Fig.* 4.)

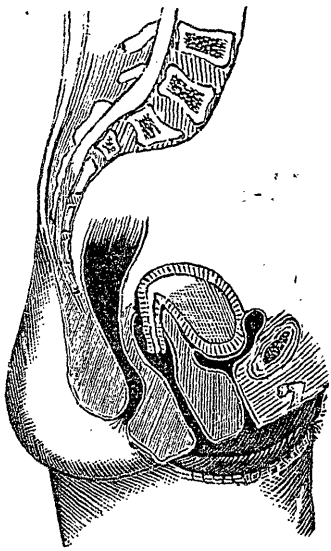

FIG. 4.—Showing retained discharge converting uterus into pus-dilated cavity.

The symptoms complained of by the patient were those of a chronic septicæmia due to constant absorption of a very small quantity of ptomäines from the cavity of the uterus. The skin and bowels were, by their over-action, endeavoring to maintain the balance between health and a serious explosion. The nervous system was giving evidence of distress in the headache, cardiac irritation, and slight elevation of temperature.

* Sims on Treatment of Stenosis of Cervix. Am. Gynæ. Trans., 1878.

A case of this kind has a special interest attached to it, in that it is a type of the old midwife's "weid" when that visionary disease occurred late in the convalescence. The "weid" did not *always* kill the patient, nor would it have killed this patient, as, with time and much suffering the uterus would have gradually emptied itself, the danger always being in the foreground of a sudden attack of lymphangitis followed by interligamentous pelvic abscess.

But to return to the treatment in this case. The uterus was irrigated in a similar manner the next morning and the cavity filled with iodoform and boric acid suppositories. The temperature in twelve hours fell, the heart became quiet, and the patient was strong and out in a few days afterwards. I did not think it necessary to curette the tufts spoken of, as there had been no secondary hemorrhage, although in Germany it would probably have been done.

CASE III.—*Ptomäine Poisoning from retention of a decomposed Decidua.*—C. B., aged 26. Has had two miscarriages and two children at full term. Her youngest living child is seven months old. She has a pronounced retroflexion of uterus. She menstruated but once (four months ago) since the birth of last child, and did not mind its non-appearance again on account of her nursing. During the last three weeks, however, she has been losing blood from the uterus at intervals. During the last week she complained of chilly sensations, gradually increasing exhaustion, thirst, constant headache, diarrhœa, and severe pain in the back. She has now a pallid pinched countenance; rapid small pulse (135), temperature 102°F., and feels so exhausted she can hardly walk across her bedroom.

On examination, there is found a fœtid brownish uterine discharge. Uterus retroflexed, with fundus lying in hollow of sacrum, enlarged, and excessively tender. The os is closed, cervix feels large, but otherwise normal.

From a history of this nature,—no matter how strongly the patient protested against the possibility of her being pregnant,—it will be seen that there was a decomposing product of conception incarcerated within this bent uterus, and that it must be got out

as quickly as possible, notwithstanding the firm closure of the cervix and the strict injunction from the "old masters" that we must wait until it is opened (*sic*). The patient was anæsthetized, placed on a table, Sims' speculum introduced, and the uterus drawn down to the introitus with a volsella. The cervix was now dilated with forceps, the mass seized and drawn out. With the dull curette the cavity was scraped over and all fragments removed with the forceps. Lastly, the cavity of uterus was washed out with a 1–2000 solution of corrosive sublimate. The following afternoon the patient's pulse was 86, temperature normal, and other abnormal conditions before mentioned had disappeared.

CASE IV.—*Profuse intermittent Uterine Hæmorrhages for eight weeks, after missing two menstrual periods. Cervix closed.* —L. M., aged 28. Has had three miscarriages and two full-term children. Last miscarriage eighteen months ago. States that she missed two menstrual periods, and that two months ago she began to bleed. She would experience sudden gushes of blood from the uterus, accompanied with some pain. The bleeding would continue in a minor degree for a few days and then stop, would again return in six or seven days and again stop in the same way. This state of things continued up to the time I saw her (eight weeks from supposed cessation of pregnancy). I saw the patient at about three o'clock in the afternoon, directly after a severe hæmorrhage. I found the cervix firmly closed, hard, and enlarged from old cystic hypertrophy. Body retroflexed, exceedingly tender, and lying in hollow of sacrum. Not having instruments with me I told the patient I would return the next day and remove the contents of uterus. At six o'clock the same afternoon however, I found the patient had had a severe rigor which lasted over half an hour. Pulse now 120; temperature 103°F.; severe headache and other constitutional disturbance. She was anæsthetized, placed on a table, and treated in same way as case No. 3. I had some difficulty, however, in finding the mass in this case. It seemed to be incarcerated down in the left cornu of uterus. The forceps went into the uterus unopposed to the depth of five inches, and it was

only by a careful and systematic search that the mass was discovered in the left cornu and its vicinity. This patient was well enough to be up and about next day.

At both of these interesting cases—which occurred within a few days of each other—Dr. John A. MacDonald was present.

CASE V.—*Retained products of conception causing Hæmorrhage and Ptomaine Poisoning. Removal at Clinic.*—This case, aged 40, mother of many children at full term and the subject of several miscarriages, presented herself at my clinic a few weeks ago. She complained of having passed two menstrual periods, and had been bleeding off and on during the last two weeks. She was exhausted, feverish, had a rapid pulse, and other symptoms of septic absorption. On examination a large dark blood-clot occupied the cervix. The forceps was passed beyond this to the fundus and there found a large decidual mass. The uterine cavity was thoroughly curetted and all shreds removed in the presence of some gentlemen attending the clinic. The cavity was washed out with sublimate solution 1–2000, a tamponade of iodoform with string attached placed against the cervix, directions being given to remove it that night, and use hot carbolized irrigations night and morning for a few days. This woman left the clinic quite undisturbed, as if nothing in fact had happened, and drove to her home some two miles distant in a western suburb. She had no more trouble.

I have introduced these cases of inevitable abortion in this report to show with what ease and safety the contents of the uterus can be removed in the manner described. At the same time I would not wish anyone to think that the operation is an easy one to perform by those unpractised in uterine surgery. Like all other manipulations about the uterus, it requires a perfect knowledge of the parts and some special manipulative skill in this branch of our art. The only danger I can see regarding the procedure consists in leaving a portion of the mass behind in the uterus, requiring a second attempt. There is no reason, howevea, why any physician cannot perfect himself in this as well as in any other surgical proeedure. I have not as yet made

an exact calculation from the records of this operation, but I think I must have done it over one hundred times with the happiest results, and have witnessed very unfortunate consequences result from following the old *expectant plan* of treatment.

Reviews and Notices of Books.

The Diagnosis and Treatment of Diseases of the Kidney amenable to direct Surgical Interference.—By W. BRUCE CLARKE, M.A., M.B., Oxon, F.R.C.S., &c. London: H. K. Lewis.

This little book is limited to a description of those diseases of the kidney which are amenable to surgical treatment. The first chapter treats of the anatomical situation of the kidneys, and anomalies, such as misplaced, single and horseshoe kidneys, are described, also the anomalies of the renal arteries. Mr. Clarke says that he has only seen extra branches entering at the two ends of the kidney in one case in thirty in the dissecting room. In our experience such anomalous vessels occur much more frequently, as often as one in five or six. There is one anomaly of the vessels which Mr. Clarke has not alluded to, and that is complete absence of the main vessel entering the hilus, its place being supplied by arteries entering at the two ends. Injuries of the kidneys and ureter are next considered, and numerous cases are given in illustration. Then follow excellent chapters on the pathology, diagnosis and treatment of new growths of the kidney, parasites of the kidney, and hydronephrosis. A very excellent description of calculus of the kidney and ureter is next given, and the chapter is fully illustrated. Mr. Clarke is of opinion that the removal of a calculous kidney in an advanced stage of suppuration is an unwise proceeding and should not be attempted, and that nephrotomy should be performed in such conditions. In many cases of advanced calculous pyelitis the kidney has been successfully removed, and we are of opinion that Mr. Clarke is rather too conservative on this point. A preliminary nephrotomy is certainly a wise method of procedure, and drainage may accomplish wonders, but the disease and its

cause still remain, and the fatal termination is often merely postponed. We have seen kidneys in the most advanced stage of suppuration removed without the great difficulties due to adhesions which Mr. Clarke lays so much stress on.

In the chapter on scrofulous disease of the kidney, the author very properly draws attention to the fact that in these cases the disease is often in the first instance referred to the bladder, and that frequent and painful micturition are constantly prominent symptoms. Exploratory incision is advised and preliminary nephrotomy for the purpose of drainage and in order to ascertain the condition of the other kidney, for if the other kidney is not performing its duties it would be useless to perform nephrectomy.

The chapter on "operations on the kidney and their mode of performance" is an interesting one, and each operation is fully described. In describing nephrotomy, the author states that "by gently separating the kidney from its surrounding connective tissue with the fingers the anterior surface can be thoroughly explored and the whole kidney pulled outside the body and freely handled." Now in our experience the pulling out of the kidney, especially when situated high up under the ribs, is no easy matter, and even if it were as simple a proceeding as Mr. Clarke states it to be, we very much question whether it would be a wise one. In speaking of the question of drainage after nephrectomy, he says "if the kidney has shelled out without any trouble there is no need of drainage any more than in an ordinary case of ovariotomy; but if there is any doubt in the operator's mind, it is safer to drain than to do without drainage." We should advise drainage in all cases, for even if the kidney shells out easily there is always after-oozing which requires drainage; after simple ovariotomy no drainage is necessary, because where no adhesions exist there is no after-oozing. In many cases of nephrectomy it is well not merely to drain but to plug the wound with iodoform gauze for 24 hours, as advised by Bergmann. In cases of suspected stone, where the kidney has been cut down upon and no stone is found by needle exploration, the author advises incision of the kidney and the employment of a flexible catheter with a metal or porcelain top. With this instrument

he has been able to explore, in the dead subject, every part of the pelvis and calyces.

The book concludes with a short chapter on the methods by which one ureter can be temporarily occluded for the purpose of ascertaining the actual condition of each kidney before resorting to operation. We have perused this book with much pleasure, although the materials from which it is written are, perhaps, drawn too exclusively from British sources, we can recommend it as giving an excellent account of the present state of the surgery of the kidney. It is concisely written, is furnished with a good index and bibliography, and is splendidly illustrated with nineteen full-page original cuts. The diagrammatic illustrations are especially useful.

Ueber den mit Hypertrophie Verbundenen Progressiven Muskelschwund und Änliche Krankheitsformen.—Von DR. FRIEDR. SCHULTZE, Professor extr. an der Universität Heidelberg. Mit drei lithographirten Tafeln. Wiesbaden: J. F. Bergmann. 1886.

Among the many recent important neurological advances, not the least is the definite recognition of a purely myopathic progressive atrophy as distinct from a neurotic progressive atrophy. It is true that Friedrich for some time before his death contended for the essentially myopathic origin of many muscular atrophies, but it is only within the last two years that the truth of this view has been established beyond doubt. Prominent among the workers who have brought this about stands the honored name of Schultze of Heidelberg. In the volume under consideration, Prof. Schultze not only gives a synopsis of the work performed by others up to the present time in these important groups of diseases, but also a considerable number of observations which he has made himself, and some of which are published for the first time. He divides muscular atrophies into five distinct groups, the first being the well-known "Atrophy with pseudo-hypertrophy." This disease is a purely muscular affection. In the most pronounced cases of it there never has been found changes in the central or peripheral nervous system to account for the marked atrophy.

The second variety is the "Hereditary form of progressive muscular atrophy." In this form there may or may not be pseudo-hypertrophy. There are many types of hereditary atrophy, but as these depend on its extent and localization it only leads to unnecessary confusion to make such a division as is made by certain authors. Hereditary progressive atrophy is a myopathic affection. In one marked case, recently very carefully examined by Landouzy and Déjérine, no changes whatever were detected either in the central or peripheral nervous system. Schultze's third division is characterized by progressive atrophy without pseudo-hypertrophy, with the absence of heredity and without any marked nervous symptoms, but frequently *with genuine hypertrophy.* Here in all probability we have also to do with a pure myopathic affection. In the fourth form, there are slight nervous symptoms with few changes found in the cord and nerves, while there are marked changes in the muscles themselves. The fifth variety includes all those cases of slowly developing muscular atrophy where there is nothing found but degeneration (intense) of the anterior horns of the spinal cord. The majority of these cases of true neurotic atrophy are attended by degeneration of the lateral columns and bulbar paralysis. This form is very seldom attended by pseudo-hypertrophy and never by a true hypertrophy of the muscles.

The diagnosis between neurotic and myopathic atrophy is to be made by the existence or non-existence of certain serious symptoms, as bulbar paresis and lateral sclerosis—through the condition of the muscles; in particular through the existence or not of hypertrophy or pseudo-hypertrophy—through the localization of the atrophy, the existence of heredity, and the age of the patient. The presence of the reaction of degeneration, of fibrillary contractions and of pain speak strongly for the neurotic origin of an atrophy, but they do not absolutely exclude a myopathic atrophy. If the atrophy commences in the muscles of the face, shoulder or in the lower extremities, it is probably muscular; while if the muscles of the hands are the first to be affected, it is in all likelihood neurotic.

Schultze makes a valuable suggestion when he proposes to

call neurotic atrophy "motor tabes," reserving the name "primary muscular atrophy" for the cases of *pure* muscular atrophy. If the latter is attended by hypertrophy or pseudo-hypertrophy, these terms are simply added.

The Methods of Bacteriological Investigation.—By Dr. Ferdinand Hueppe. Translated by Hermann M. Biggs, M.D. New York: D. Appleton & Co.

Of all the abundant crop of books on this subject which have recently appeared, this one is undoubtedly the best and most practical. The German edition was written at the special request of Prof. Koch by the man who was in his opinion best qualified to do it. The fact that in Germany three large editions have been sold out within two years is a proof that he has done his work well. The American is well translated from the last German edition, and is well up to date even in a branch in which the changes are so rapid. While lovers of high art will miss the pretencious chromo-lithographs of bacteria and cultures which form the leading features of the manuals of Bates, Woodhead and Crookshanks, the loss is rather an æsthetic than a practical one. No chromo-lithograph, however resplendent, can prove of much practical value as compared with the study of the objects themselves. The methods described are not confined to those of Koch. A novelty to English readers is the introduction of the physiological classification of deBary as well as the primitive morphological one of Cohn. Another valuable feature is a well-written chapter of directions to distinguish objects which can be mistaken for bacteria in microscopic preparations, though we notice he omits to mention granular fibrin as one of them. The style is throughout exceptionally clear and precise, though in many places rather too terse. Some mention of the numerous simplifying changes recently sanctioned by Koch himself might surely have been introduced; for instance, no one outside of the books thinks it necessary to subject *all* glass after an ordinary washing to an elaborate rite of purification by "mineral acids, distilled water, corrosive sublimate, absolute alcohol, and ether" before he ventures to sterilize it by heat.

If the glass is simply washed clean with water and then heated the result is exactly as good. On the other hand, however, it must be admitted that the methods mentioned are certain to give good results, and any one would soon learn for himself how much of the sublimate and alcohol ritual he might neglect with impunity. The book is well got up, clearly printed, and is not expensive.

Outlines of the Pathology and Treatment of Syphilis and Allied Venereal Diseases.—By HERMANN VON ZEISSL, M.D., late Professor at the Imperial-Royal University of Vienna. Second edition, revised by MAXIMILIAN VON ZEISSL, M.D. Translated by H. RAPHAEL, M.D., Attending Physician for Diseases of Genito-Urinary Organs and Syphilis, Bellevue Hospital Out-patient Department, etc. New York: D. Appleton & Co.

In this work the author claims only "the modest task of presenting a comprehensible picture of venereal diseases and their treatment as briefly as possible to the practical physician whose time will not permit to read extensive works upon every special branch of our science." In striving to accomplish this, he has admirably succeeded, the unrivalled facilities possessed by him in the great Allgemeines Krankenhaus of Vienna having furnished a vast store of material from which to draw. Gonorrhœa and the other local affections are fully considered, whilst constitutional syphilis and the multitudinous organic disorders to which it gives rise receives the largest share of attention. The work is so divided into sections and systematized as to make it very useful and handy for reference. It will be found a valuable guide from the hands of one of the most experienced syphilographers of the period.

Rheumatism: its Nature, its Pathology, and its Successful Treatment.—By T. J. MACLAGAN, M.D. New York: Wm. Wood & Co.

The publishers have done well to add this volume to the library of standard authors. As is well known, Dr. Maclagan

was the first to bring prominently before the profession the valuable properties of the salicyl compounds in the treatment of rheumatism. The use of salicin in this disease was before this not altogether unknown, and in some very out-of-the-way places the infusion of willow-bark was looked upon as a sovereign remedy. Indeed, we know an old practitioner in this province who long ago used to speak of the great success he met with in treating acute rheumatism by this remedy. Dr. Maclagan holds the miasmatic theory of rheumatism, and thus explains the manner in which these medicines produce their anti-rheumatic effects. At the present time a good deal is being written upon this subject, and some diversity of opinion is shown to prevail upon the power of these remedies to control the disease itself and prevent the important complications from occurring. It behoves all, therefore, to acquaint themselves with the original views expresssed by their chief investigator.

Books and Pamphlets Received.

A Text-book of Medicine for Students and Practitioners. By Dr. Adolf Strumpell. Translated by Herman F. Vickery, M.D., and Philip C. Knapp, M.D., with editorial notes by Fred. C. Shattuck, M.D. New York, D. Appleton & Co.

Manual of Operative Surgery. By Joseph D. Bryant, M.D. With about eight hundred illustrations. New York, D. Appleton & Co.

On Diseases of the Lungs and Pleuræ, including Consumption. By R. Douglass Powell, M.D., Lond. Third edition. New York, Wm. Wood & Co.

Alpine Winter in its Medical Aspects. By A. Tucker Wise, M.D., L.R.C.P., &c. Third edition. London, J. & R. Churchill.

Handbook of Practical Medicine. By Hermann Eichhorst. Vol. X. Diseases of the Blood and Nutrition, and Infectious Diseases. New York, Wm. Wood & Co.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, Nov. 19th, 1886.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

DR. MAJOR exhibited the following cases, taken from his clinic for Diseases of the Nose and Throat at the Montreal General Hospital:

1. *Complete paralysis of the right vocal band*, the result of pressure exerted by a fibroid on the right recurrent laryngeal nerve. The patient, aged 47, a painter by trade, applied for treatment. On examination, the right vocal cord was found in a state of complete immobility, and occupied a position midway between that of full inspiration and phonation. A blue line on the gums and abdominal colic pointed also to lead poisoning. This latter complication, however, in no way nor at any time influenced the laryngeal condition.

2. *Early Laryngeal Œdema (tuberculous)*, with no recognizable pulmonary infection. The patient, aged 50, applied for relief of dyspnœa and a barking, choking cough. Œdema of the left arytenoid body alone was present, the swelling was grey in color and of the size of an acorn, and interfered with voice production and deglutition. After a lapse of couple of weeks a similar condition developed in the right region. Some days later the epiglottis showed signs of swelling and thickening, and later on pulmonary signs became apparent. The lactic acid treatment was adopted, and local improvement followed. The condition of the chest would lead to the opinion that temporary arrest of the disease had taken place there also. The gradual development and extent of the œdema and subsequent lung signs are the interesting features of the case, as was also the general improvement under purely local treatment.

3. *Three cases of Laryngeal Papillomata.*—(*a*)* In May, 1880, Dr. M. performed a tracheotomy on this child, then in her third year, for relief of suffocative paroxysms that endangered

* *Vide* writer's paper, "Rest and Tracheotomy," Canada Med. and Surg. Journal, December, 1882.

life. At an examination preceding the operation the larynx was found filled with warty growths. Canulæ have been worn constantly since, and no evil results have arisen therefrom. The physiological rest afforded the larynx has had a marked effect in arresting the development of the growths, as has been proved experimentally during periods of temporary improvement by plugging the tube, when increased activity of the excrescences invariably followed. Absolute alcohol has been used daily as a spray in the larynx by the child's mother with the very best results. At two recent sittings evulsion by cutting forceps had been practised, removing any remaining neoplasms. Particular attention was requested to the healthy condition presented by the vocal cords, there being no alteration of color, diminution of lustre, abrasion of surface, or impairment of movement perceptible. The writer attributed the satisfactory state of the patient to the spray of absolute alcohol and the employment of the quarter circle tube, which latter he considered less liable to produce tracheal disturbance than any of the many other makes in general use. The tube has now been withdrawn and good voice is produced.

(*b*) A female, aged 20, was first seen in October, 1885; complained of loss of voice, hoarse and painful cough, and great general debility. The larynx was found to be intensely congested, as also the trachea, which latter was of a raw-beef, purplish hue. The vocal cords were rough, granular-looking, and swollen, showed no loss of surface, and there were no growths present. The case was treated locally by astringents, etc., until May 1886, with little, if any, improvement, when attendance ceased, owing to the writer's absence in Germany. In September 1886, when the case was again seen, extensive papillomata of large size were found springing from the vocal cords in all directions and from the epiglottis. These growths were removed at two sittings, when local treatment was again resumed, with the satisfactory results demonstrated.

(*c*) A lady, aged 24 (a private patient), was referred by Dr. James Stewart of Pictou, Nova Scotia, in August, 1883, and so closely resembles the preceding one in several important par-

ticulars, that, although she could not be induced to be present, the history was recorded. When first seen in August, 1883, there was aphonia, or more correctly, dysphonia only. The history given was that of ordinary cold, and had so continued without improvement for two years. On laryngoscopic examination the vocal cords were thickened, red and granular-looking; there were no growths present. Local applications of a very thorough nature were employed over a period of two months, with but little benefit. In September 1886, the patient, who meantime had passed through a number of hands, placed herself for the second time under treatment. On examination, papillomata were found on the laryngeal face of the epiglottis, and the vocal cords were completely obscured from view by them. There was now complete aphonia, the breathing was much embarrassed, and coughing was almost incessant. The trachea presented an appearance such as described in the preceding history. The cords also showed at such points along their edges as were visible evidence of erosions and irregularities of surface. After the removal of these neoplasms by means of cutting and crushing forceps, cold iron snare, and V. Schrötter's guillotine, for no one method was in itself sufficient, a very unsatisfactory state of the vocal cords was found. Under local applications of powerful astringents, etc., improvement followed, and a very fair quality of voice has been established.

In the two latter cases nasal respiration was very much impeded, and it was only after the reduction of the hypertrophied turbinated tissue and the restoration of healthy nasal respiration that the local medication of the larynx showed any good result. This fact should not be lost sight of in the treatment of all chronic laryngeal disease. These were at first cases of chronic catarrhal laryngitis, and if nasal hypertrophies had been at first removed, convalescence would most probably have resulted without the transition to papillomata having first to be undergone. In this respect papillomata should form no exception to all other laryngeal conditions, and the dependence of a healthy larynx upon normal nasal respiration cannot be too strongly emphasized. The growths were examined by Dr. Wyatt Johnston, and on sec-

tion were seen to be radiating papillæ covered with a thick layer of epithelium and having vessels in the centre. No hyperplasia of submucous tissues and no lymphoid nodules were to be seen. The epithelial cells in *c* were larger and more loosely arranged than in *b*.

Dr. Major also showed the following instruments :—

1. An improved nasal traction snare and écraseur.
2. A nasal spud or denuder.
3. An improved nasal écraseur.
4. A laryngometer. A laryngeal mirror engraved on its reflecting surface with a scale for the purpose of measuring movements or spaces in the larynx or composing them relatively.

The nasal snares are both angular, and among other improvements introduce a novel feature in a revolving wheel or pulley placed at the angle of junction of the canula with the shank over which the wire plays, thus reducing friction, increasing power and imparting strength to the instrument at its point of greatest weakness. The mechanical principle involved requires no vindication.

Perforation of the Gall-bladder.—Dr. W. G. Johnston gave an account of an autopsy he had performed for Dr. R. P. Howard. The abdomen was found distended, panniculus and omental fat excessive. The abdominal cavity contained several quarts of thick sero-fibrinous fluid mixed with bile and of a deep brown yellow color, not fœtid. (A small incision made by undertaker for injecting a small quantity of preservation fluid was found in left loin. This fluid, readily recognized by its aromatic smell, was not found in general peritoneal cavity.) The coils of intestines glued together by recent adhesions formed numerous sacculi. In the right hypochondrium the hepatic flexure of the colon was found imbedded in a mass of firm old adhesions, attaching it to the lesser omentum and tissues about gall bladder, which could not be seen till adhesions were dissected off. Near the neck of the gall bladder a small orifice was found, through which thick greyish-brown bile was escaping. On opening the gall-bladder this orifice was valvular in character, its size that of a No. 4 sound, and it corresponded to

a spot where the mucosa is eroded and the walls thinned. Elsewhere the walls of gall-bladder are flaccid, somewhat thickened and firm, and contained about an ounce of bile mixed with mucopus. Its cavity was divided into three sacculi by the contraction of fibrous tissue in the wall. The middle one of these contains a gall-stone the shape of a bean and about the size of a pigeon's egg; close beside this is a spot where the wall has been eroded, but was secured against the surface of liver by inflammatory fibrous tissue. In a pocket near the perforation, but not corresponding to it exactly, was a small gall-stone the size of a pea. The cystic and common ducts were thickened. Just at their junction, lying really within the cystic duct, but partly obstructing the common duct by its pressure laterally, was a gall-stone the size of a pigeon's egg. A probe could be passed through either duct beside it. No other gall-stones in peritoneal cavity. Duodenum contained gray, clay-colored fæces, but bile exudes from the papilla on pressure. No signs of bile anywhere in intestines. Some slight intestinal catarrh. Liver a little fibrous and fatty. Other organs normal.

Dr. Howard, in reporting the case, said its clinical features were of unusual interest. It was a case of acute general peritonitis from perforation of the gall-bladder in a man aged 65. The patient was in good health at the beginning of the month. After four days of epigastric pain, never very severe, patient became jaundiced. Next day there was vomiting; pain in the epigastrium became more marked, especially in region of gall-bladder. There was no very marked tenderness on pressure, but pain and symptoms of peritonitis extended over entire abdomen. Pain was not sufficient, however, to necessitate an opiate. The temperature on the morning of the sixth day was 100.8° and 99.5° at night; on seventh day, 100.6°; eighth day, 100°; and ninth day, 98.8°. The abdomen gradually became enlarged and tympanitic, but still no severe pain. After third day jaundice gradually increased. The diagnosis was very obscure. Cancer could be excluded, and as there was no history of gall-stones, a diagnosis of peritonitis spreading from the gall-bladder was made. It was strange that the escape of so irritating a fluid as the contents of

the gall-bladder should have caused no collapse or severe pain. No perforation was diagnosed. It is an important question for consideration whether surgical interference in this case would have availed anything. The gall-bladder was so deeply imbedded in old adhesions that it would be hardly possible for a surgeon to have reached it. The gradual invasion of the symptoms was probably due to the slow oozing out of the contents of the gall-bladder.

DR. WILKINS asked if non-action of bowels in such a case would not be due to spasm of the muscular coat owing to the peritonitis, and whether an opiate treatment would not be most successful in relieving constipation.

DR. HOWARD stated that the treatment had been mainly an opiate one.

DR. GEO. ROSS had been struck, on seeing the case, by the absence of the usual marked features of acute peritonitis. The obstinate constipation had suggested intestinal obstruction. He called attention to the fact that severe acute peritonitis may coexist with a normal or only sub-febrile temperature, the idea that acute peritonitis necessitated a high temperature being quite fallacious.

DR. SHEPHERD thought that surgically nothing could have been done. The anatomical features of the case placed it out of the reach of surgical interference. Excision of the gall-bladder could not have been successfully performed owing to mechanical difficulties.

DR. R. J. B. HOWARD suggested that perhaps in a similar case simple ligature of the cystic duct by preventing the passage of bile from the liver to the gall-bladder would change the discharge of acrid bile into the peritoneal cavity to one of a little harmless mucus.

DR. WILKINS asked when the perforation probably took place.

DR. HOWARD, in reply, said the perforation probably occurred early. There was nothing in the history of the case to indicate sudden rupture. Bile entered peritoneum gradually.

DR. A. F. SCHMIDT showed a case of *cancer of stomach*, Apparently the whole stomach was tranformed into cancerous

tissue. There was also an extensive diffuse cancer of the head of the pancreas. The tissues in the neighborhood were extensively infiltrated. The liver contained numerous soft secondary nodules. Bile duct slightly obstructed. Secondary cancer of lungs.

DR. JOHNSTON thought it difficult to say whether the disease originated primarily in stomach or in pancreas. No definite ulcer or nodule, looking like a starting-place could be discovered. The surrounding infiltration might afford some clue, as this infiltration was much more directly continuous with the growth in the pancreas than with that in the stomach.

Cancer of Œsophagus.—DR. ROSS showed an œsophagus the seat of malignant disease. The symptoms during life were marked and gradually increasing difficulty in deglutition. The stricture admitted a No. 3 bougie. There was no marked emaciation. The patient had died suddenly and unexpectedly, death being due to the bursting of a cerebral abscess. There were no symptoms of brain disease.

Autopsy by Dr. Johnston.—Epithelioma of œsophagus; forming ulcerated surface five inches long. Calibre of gullet not much narrowed. In brain, an abscess was found just above the roof of right lateral ventricle, at its anterior and external part, anterior to the motor area. This had burst into the lateral ventricle. Abscess appeared chronic in nature; did not appear to be connected with the cancer.

Stated Meeting, December 3rd, 1886.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

Case of Leukæmia.—DR. STEWART showed a man, aged 32 years, who is suffering from enlargement of the cervical, axillary and inguinal glands. The patient, who is a farmer, first noticed a swelling under his left lower jaw nine months ago. The glands along the sterno-mastoids and above the clavicles are very much enlarged. The swelling is painless, and in some parts has a semi-fluctuating character. Several glands in both axillary regions are the size of hen's eggs. The groin glands are much enlarged

also. The patient also complains of weakness, with palpitation and breathlessness on exertion. He is decidedly anæmic. He never had any previous illness. Has lost three sisters from pulmonary consumption. There is no evidence of enlargement of the bronchial or mediastinal glands. His breathlessness can be accounted for by his anæmia, and the pressure exerted by the enlarged cervical glands on the trachea. There is no enlargement of the thyroid glands or tonsils. No pain, tenderness or swelling over any of the bones. *Blood*—Dr. Wyatt Johnston kindly undertook the examination of the blood. It is as follows: "Red corpuscles are well formed, uniform in size, and nummulate normally. White are considerably increased in number. There are numerous small colorless cells (blood plaques ?). On staining the blood (Ehrlich's hæmatoxylin eosin method), the leucocytes are seen to be mostly small and with mono-morphic nuclei. A very few eosinophile cells and one or two nucleated red corpuscles noticed, but both these elements are very infrequent. By Gowers' hæmocytometer, red cells 3,570,000 per c.m. (71 per cent. of normal); white cells, 200,000 per c.m. Proportion of white to red, 1 to 20 (an increase absolutely of 13 times and relatively of 15 times the normal). Hæmoglobin index 58 per cent." *Spleen*—There is a considerable increase in the size of the spleen, its vertical dullness extending from the upper border of the ninth rib downwards a distance of five inches. Its surface is smooth. *Liver* is also somewhat enlarged, its vertical dullness (in the line of the nipple) reaching from the fifth rib to two inches below the ribs, a distance of six inches. During the last two or three weeks he has been complaining of a dull, aching pain over the lower part of his back. There is no pain or œdema of the lower limbs. Nothing abnormal to be detected in the abdominal cavity.

Remarks.—The case presents some difficulty in diagnosis. Its marked clinical features are the hyperplasia of the superficial lymphatic glands. So marked is this enlargement that at first sight one would be inclined to at once come to the conclusion that it is a case of Hodgkin's disease. The very considerable increase in the number of white-blood cells, together with the

increase in size of both spleen and liver, make it more probable that the case is one of lymphatic leukæmia. Osler, in his article on leukæmia in "Pepper's System," says that when the white cells increase to such an extent as to bring about a proportion of one white to fifty red, then we have to do with leukæmia. He draws particular attention, however, to the variableness of this proportion from day to day. A case, therefore, might be diagnosed one day as lymphatic leukæmia and another day as Hodgkin's disease, if we were to rely solely on the proportion which the cellular elements of the blood bear to each other. There are cases, and the one exhibited belong to this class, where it takes some time to come to a conclusion whether we have to do with lymphatic anæmia or Hodgkin's disease. Is it possible that a case of Hodgkin's may end in what we call lymphatic leukæmia?

DR. BELL referred to cases which he had seen in hospital. Cases of Hodgkin's disease lived many years; those of leukæmia died within two years. He thought the present one a case of leukæmia in an early stage.

DR. SHEPHERD spoke of difficulty in diagnosing between Hodgkin's disease and scrofulous glands of the neck.

DR. A. LAPTHORN SMITH referred to a case of *Torticollis*, previously shown, saying that a history of syphilis had been found. He also exhibited a case of doubtful psoriasis following vaccination. The eruption came out a year ago, soon after the patient had been vaccinated.

DR. SHEPHERD regarded the case as one of eczema.

DR. MILLS said that the case was of interest, because of the recent evidence that lymphatic glands are producers of red blood corpuscles, and this case would support it from the pathological side.

Case of Leprosy.—DR. SHEPHERD exhibited the case, occurring in a man aged 19, a native of Trinidad. He had a well-marked tubercular eruption on the face and hands, and a copious macular eruption on the legs and buttocks. The maculæ were of the size of ten cent pieces, of a bronzed color, and showed some infiltration. The fingers of both hands were crooked and swollen,

and patient could not use them. The claw-like appearance of the hands was very marked. Large bullæ were seen on the hands and wrists, which when evacuated left troublesome ulcers. The patient's face was very characteristic of leprosy, the thickened tissues, dull expression, and tubercular nodules, also loss of eyebrows, and injected conjunctiva, gave the individual an appearance *sui generis*. There were also a number of anæsthetic patches, viz., on the inside of each thigh with atrophy of the skin on right elbow, and on dorsal surface of fingers and toes. The anæsthetic patches have only appeared within the last year. The right ulnar nerve could be easily felt, and was slightly enlarged. The mucous membranes were not affected. The patient had been in this country four years and had been treated for syphilis; he came to Canada by the advice of physicians who thought his disease would improve in a colder climate. He was affected with the disease two years before he left Trinidad; the eruption was then principally on the chest, and disappeared with the use of chaulmoogra oil internally and externally. He said the disease is common in Trinidad, and exists chiefly among the Portuguese. There was no history of leprosy in his family. Dr. Wyatt Johnston had excised one of the tubercles on the nose and had obtained from it the bacilli of leprosy in abundance, a beautiful preparation of which was shown.

Dr. Mills said that in the skin, as in the eye, it had been demonstrated that blind spots occurred, and thought it would be interesting to see if these corresponded with the anæsthetic areas in leprosy and in other pathological conditions.

In answer to Dr. Smith as to whether the disease was contagious, Dr. Shepherd said that, like syphilis, it was inoculable, but not contagious. Leprous men have lived for twenty years without conveying it to their wives. It was hereditary, usually skipping a generation. Great diversity of opinion exists as to the contagiousness and the heredity of the disease. This is well shown in the reports from the different leper stations.

Cases of Cancer of Pylorus.—Dr. Johnston showed two specimens. The first was from a woman aged 49, a patient of Dr. T. A. Rodger. She always was dyspeptic. A distinct tumor was felt

in the right hypochondriac region about a year ago. Symptoms of gradual exhaustion were experienced, accompanied by dilatation of the stomach. At the autopsy, the pylorus was found involved for 2½ inches in a scirrhus growth, lumen still admitting little finger readily; three small ulcers with infiltrated edges were situated near the ring; hyperplasia of mucosa in region of pylorus to a distance of five inches from ring; walls of stomach hypertrophied; cavity not markedly dilated; no infiltration of tissues in neighborhood; no secondary growths anywhere. The second case was from a man aged 50, a patient of Dr. Geo. Ross. The stomach was enormously dilated; pylorus was involved in a dense cancerous mass, wall greatly thickened, and lumen narrowed, only admitting a No. 8 catheter; a little infiltration in neighborhood, but no compression of bile ducts and no secondary cancer; walls of stomach at fundus not so thick as in preceding case.

Dr. Ross stated that his patient's symptoms were those of excessive dilatation of the stomach, requiring the stomach tube to get relief. At the autopsy, a quantity of fibrous pulp was found within the stomach, being the remains of some oranges patient had eaten some time previously. He thought the clinical distinction between this case and the preceding one was accounted for by the much greater degree of constriction at pylorus.

Dilated Stomach.—Dr. Bell reported a case of dilatation of stomach caused by fibrous constriction of an inflammatory origin at pylorus. An abscess filling lesser omentum had burst and caused fatal general peritonitis. It communciated with the stomach through an ulcer in the pylorus. He thought the disease began as the result of an injury to abdomen received in a fall eighteen months before, and that the patient's life would have been saved by an operation proposed to him, but refused.

Bifid Meckel's Diverticulum.—Dr. Johnston showed a case of Meckel's diverticulum ilei having a bifid extremity. He did not know of its having any anatomical significance.

Dr. Shepherd stated that this was the first example he had seen of a bifid Meckel's diverticulum.

Extreme Dilatation of the Heart.—DR. JOHNSTON also exhibited a specimen of extreme dilatation of the right side of the heart, from a man aged 40. The right chambers contained 27 ounces of blood and a soft clot. Tricuspid orifice measured 9 mm. in circumference. Pulmonary orifice slightly dilated; valve competent; other valves normal. Dilatation of left ventricle only trifling. No hypertrophy of heart wall and no marked degeneration of the muscle. Patient had also right-sided chronic tubercular pleurisy with dense fibrous exudation and acute uniform miliary tuberculosis of both lungs in an extreme grade in connection with the arterioles. The case was considered puzzling as to causation. No caseating mass was discovered anywhere, and no communication of any such mass with the veins or thoracic duct. The adhesions could not embarrass the circulation in any way unless by interfering with the contraction of the right auricle. He thought the obstruction to pulmonary circulation in arterioles would have aggravated the dilatation of the right heart.

DR. GEO. ROSS said the clinical history was that of an acute pleurisy four months ago not well recovered from. A prominent feature was the marked heaving pulsation in epigastrium.

DR. STEWART thought that the above explanation did not account for so extreme a dilatation. The patient might previously have had parenchymatous changes in his heart muscle which were not now to be recognized.

Puerperal Cerebral Embolism.—DR. ROSS exhibited specimens from a case in which an abortion was followed three months ago by embolism of left Sylvian artery, causing right hemiplegia with aphasia. A presystolic murmur existed. The autopsy by Dr. Johnston showed extensive warty vegetations, but no sclerosis of mitral valve. The left Sylvian artery was obliterated and transformed into a fibrous cord. There was softening of the left corpus striatum and internal capsule.

DR. SHEPHERD thought the embolism was excited by fibrous condition of the blood at parturition. He had reported a similar case to the Society, with embolism at three successive labors.

Tuberculous Disease of Bladder and Kidney.—DR. JOHN-

STON exhibited for Dr. Bell specimens from the case of a boy aged 19, where a cystotomy wound had remained unhealed. Death followed in one year with symptoms of pyelo-nephritis. Autopsy showed old tubercular disease of right kidney and ureter; the bladder was nearly free from disease, but prostate was extensively involved. The granulations of the wound were tubercular, and sections showed tubercle bacilli in them. The other kidney and ureter were healthy. The lungs showed acute tuberculosis.

DR. BELL said the patient had chronic disease of knee-joint, apparently tubercular.

Tait's Operation.—DR. WM. GARDNER exhibited the uterine appendages removed from two patients during the past three weeks. In the first case the ovaries were cirrhotic and densely adherent behind a retroflexed uterus. Free bleeding followed the separation of the adhesions, treated by the drainage-tube. The patient had been an invalid for fourteen years from pelvic pain and profuse and painful menstruation, with severe headaches. She is slowly recovering. In the second case, both ovaries were enlarged and cystic, the left the size of a hen's egg; no adhesions. The symptoms were profuse and painful menstruation and constant pelvic pain. Patient recovered without a single bad symptom. In both cases the abdominal incision was an inch and a half in length only.

Dr. Gardner also reported that a lady on whom he had performed ovariotomy in the fourth month of pregnancy had been confined a week ago, at full term, of a male child weighing ten pounds. The patient was the mother of two children, and had suffered for many years from cough, hæmoptysis, and purulent expectoration. The labor was of six hours' duration. It was followed by inertia of the uterus, with alarming hemorrhage. She is now recovering without any complication. The cough and expectoration continue. Dr. Gardner remarked that operative measures were much preferable and safer than the old treatment of tapping the tumor or bringing on premature labor.

DR. TRENHOLME asked for the symptoms which led to the operation.

DR. GARDNER replied—Intense pain in pelvis and back, vomiting, and headache. Last pregnancy fourteen years ago, and suffered ever since. Patient was very neurotic.

DR. MILLS read a paper upon "The Cause of the Heart-beat and other Problems in Cardiac Physiology." (*See January number, page* 321.)

DR. ARMSTRONG congratulated Dr. Mills upon having performed so important a service to science in doing this original work, and also congratulated the Society in being able to receive so valuable a paper.

DR. STEWART had until now always cherished hard feelings against Mills, Gaskell and the others who had recently overthrown the old cardiac physiology which had appeared so complete. In studying the action of drugs the new researches had had a most unsettling effect upon his views, but he thought that when the theories advanced by Dr. Mills were formulated the matter would be put on a sound and at the same time simple and comprehensible basis.

HURON MEDICAL ASSOCIATION.

Stated Meeting, Jan. 11th, 1887.

MEETING HELD AT SEAFORTH, THE PRESIDENT, DR. J. CAMPBELL, IN THE CHAIR.

Floating Kidney.—DR. GRAHAM of Brussels read a paper on "Floating Kidney," and presented a patient before the meeting. The patient was a lady in the middle period of life, who had consulted Dr. G. for a swelling in the situation of the right kidney. She had complained much of dragging pains, loss of appetite, and dyspeptic symptoms. She had vomited often, suffered from marked debility, and labored under bronchitis. There had been great irritability of the bladder, but the uterine system was healthy. After several medical men present had examined the patient, they expressed themselves as entertaining no doubt, from the position, size, feel and mobility of the tumor, and from the condition of the other organs, that the case was one of movable or floating kidney. The treatment as outlined by Dr. Graham was approved of, viz., to treat the symptoms as

they arise, such as indigestion, anæmia, phosphaturia, etc., advising the patient to refrain from straining or violent exercise, and applying an elastic bandage or truss with a well-fitting pad in the region calculated to retain best the misplaced organ.

Ichthyosis.—DR. CAMPBELL of Seaforth presented a case of ichthyosis, which was examined by those present. The disease was in the form known as xeroderma, the skin being harsh, rough, dry, and a large surface covered with bran-like scales. The treatment recommended was by alkaline baths, followed by glycerine unctions or by tarry applications to check cell growth.

Enlarged Testicle.—DR. SMITH of Seaforth brought before the Association for examination an interesting case of a young man apparently in good health, but having an enlargement of the left testicle. The slightest pressure on the affected testicle excited most painful spasms, and continued manipulation rendered the organ most sensitive, so that the slightust touch would cause him to cry out. Directing the patient to lie with his face downwards, pressure along the spinal column caused no pain, until the two lower dorsal vertebræ are reached. Slight pressure here caused spasms of the left side. This had been thought to arise from the abnormal condition of the testicle. He had been treated with large doses of pot. brom. combined with pot. iodid. The question arose as to whether there was likely to be malignant disease of the testicle, but the length of time since he had first noticed the enlargement (four years) rendered this improbable. It was thought better to continue the treatment as above, and not resort to operative measures at present. Electrolysis was mentioned as likely to be useful in the case.

Ulceration of the Leg.—DR. WORTHINGTON of Clinton presented an intractable case of ulceration of the leg in an old gentleman, for which the persistent wearing of a Martin's bandage was recommended.

Case in Practice.—DR. ELLIOTT of Brucefield mentioned a case which had recently occurred in his practice, in which a miscarriage was taking place, but the uterus being slow to throw off its contents, he had injected hot water at a temperature of 120°F. into Douglas' cul-de-sac, with the result that uterine

contractions were excited, so that the ovum was expelled without further delay.

Enlarged Spleen.—DR. NICHOL of Bayfield reported a case diagnosed as enlargement of spleen, occurring in a man aged 50, which he had first seen in July last. The treatment pursued had been all that was recommended in those cases, but nothing seemed to be of any avail, and the patient died six months after the enlargement was first noticed. The enlargement reached to within a finger-breadth of the pubis, and about two inches over the median line of the abdomen.

DR. SMITH, who had seen the case, agreed with Dr. Nichol's treatment, but expressed regret that a post-mortem examination was not allowed.

DR. GRAHAM recollected a somewhat similar case, in which those who saw it diagnosed splenic enlargement, but the post-mortem showed that it was a case of spindle-shaped sarcoma of the kidney.

Cancer of the Pylorus.—DR. SMITH read the notes of a case of dilatation of the stomach arising from cancer of the pylorus. The patient was aged 54 years. Eleven years previously had been affected by what had been diagnosed as cancer of the stomach. At that time there was pain, anorexia, nausea, vomiting and finally hemorrhage. Suddenly, however, a remission in his symptoms occurred, and he seemed gradually to improve. For ten years he has been able to attend to business, never complaining of anything but occasional attacks of indigestion. Suddenly last month there was a return of all the symptoms of eleven years ago, with the exceptlon of the pain. Nothing controlled the vomiting and nausea, and the patient rapidly sank and died of exhaustion. An interesting post-mortem revealed the fact that a scirrhous growth was involving the pylorus and causing stenosis of that orifice, which was reduced to the size of a small pencil. The stomach measured 30 inches in length along the greater curvature, and a straight line from cardiac to pyloric orifice was 19¼ inches. Coats of stomach were found free from ulceration. A fact of interest was that the diagnosis made eleven years previously was verified by the

post-mortem. The sudden remission of the symptoms is not an unusual occurrence in cancer of the stomach, but these symptoms generally return within a year. In this case reported, everything went to show that the disease had been diagnosed correctly, and that for some reason the progress of the disease had been arrested or retarded.

Resolution of Condolence.—A resolution of condolence expressing sympathy with Dr. W. Sloan of Blyth in the sudden death of his son, Dr. A. M. Sloan of Listowel, was carried.

Election of Officers.—The election of officers resulted as follows: President, Dr. W. Graham, Brussels. Vice-President, Dr. Young, Londesboro'. Secretary, Dr. Smith, Seaforth. After passing complimentary resolutions to the retiring officers, the meeting adjourned.

TORONTO MEDICAL SOCIETY.

Stated Meeting, Jan. 6th, 1887.

THE PRESIDENT, DR. MCPHEDRAN, IN THE CHAIR.

PATHOLOGICAL SPECIMENS.

DR. TEMPLE showed the uterine appendages, removed on account of purulent salpingitis of both tubes. The patient, aged 33, had been married eleven years, was never pregnant, and began to suffer one year after marriage. During the last year she was almost constantly confined to bed, as any exertion caused severe pain in the pelvis, lasting several days, probably due to circumscribed peritonitis. The patient was thin, and the abdomen was enlarged equal to the fifth month of pregnancy. On examination, the uterus was found to be pushed forwards and upwards, so that the cervix could be felt with difficulty behind the symphysis pubis. The Douglas cul-de-sac was filled with a fluctuating mass. The right tube could be accurately mapped out by bimanual palpation; the left could not be so well outlined. On opening the abdomen, the mass presented the appearance of a fibro-cyst. The structures were greatly matted, the adhesions being separated with difficulty. The right tube burst during separation and about 8 oz. of pus escaped into the peritoneum. The right ovary was removed—the left could not be found. It

had probably become absorbed from pressure. The patient made satisfactory progress, the temperature not exceeding 101°F., usually varying from 99° to 100°.

DR. ROSS exhibited a placenta from a case of twin pregnancy in which the cords, which were attached to the placenta very close together, were inextricably knotted. Death of both fœtuses had occurred, evidently some days before birth. One of the children was hydrocephalic, and it was found necessary to puncture the head before delivery could be effected.

DR. MCPHEDRAN presented a stomach, etc., from a case of carcinoma of the œsophagus for which gastrostomy had been done. He first saw patient (a woman aged 41) in April 1886. She had then been suffering from some pain in the chest and mid-dorsal region for about four months, with increasing dysphagia. Exploration revealed a constriction of the œsophagus 11 inches from the superior dental arch. From May 1st there was complete inability to swallow even ʒj of water. A large amount of clear mucus was regurgitated daily, with occasionally a little blood. She also had frequent hemorrhages all summer. She was nourished through an œsophageal tube until June, when the stricture only admitted a No. 8 catheter, and became so painful that operation was advised. The preliminary operation was done July 11th, and the stomach opened on the 21st. She improved greatly in flesh and strength, and was able to walk and drive out from July to October. There was considerable trouble from leakage around the tube in the fistula, otherwise the operation met the object aimed at perfectly, viz., the relief of hunger and thirst, first and most important, and, secondarily, the prolonging of life. She began to fail in November, was confined to bed most of December, and became rapidly worse. Cough and dyspnœa became troublesome, and she died on the 28th of December, six months and eighteen days after operation.

Post-mortem.—The stomach was found dilated and extending two inches below the fistula, which was situated one inch from the pyloric opening. The proximity of the fistula to the pylorus doubtless accounted for the troublesome leakage. The lower five inches of the œsophagus was disorganized and converted

into a cavity containing foul grumous material. The surrounding parts were adherent. The aorta showed invasion of the disease on its inner surface. The back parts of the lungs were in an advanced stage of hypostatic pneumonia, which was the immediate cause of death.

Remarks.—With the division of the operation into two stages, it is not a dangerous one if resorted to before prostration is advanced. The securing of the stomach with harelip pins was resorted to on account of ease combined with efficiency. The stomach should be drawn as far as possible to the right, so that the fistula will be at the greatest possible distance from the pylorus, as there will thus be less liability to leakage. It would be better not to retain the feeding tube in the fistula constantly, but to introduce it when food is to be given. Of late years the death rate from this operation has been greatly reduced. Of 13 cases operated on by Knee of Moscow, 10 recovered and 3 died—one from bleeding, one from perforation of a bronchus, and only one from prostration.

Stated Meeting, January 13th, 1887.

THE PRESIDENT, DR. MCPHEDRAN, IN THE CHAIR.

Arsenic in the Treatment of Skin Diseases.—DR. GRAHAM read a paper on this subject. He first considered its negative aspect, quoting Drs. Fox, Hardway and others as holding the opinion that in *some* forms of skin disease, principally those of an inflammatory nature, arsenic was not simply useless but positively harmful. From the positive point of view, the writer of the paper dealt with the effects of arsenic on the skin in causing degeneration and partial dissolution of the protoplasm of the cells. The epidermis separates and desquamates, and the cells of the Malpighian layer are loosened and separated from one another; in short, arsenic causes a mild inflammation of the skin, hence it is contra-indicated in acute affections. In small doses it beautifies the complexion, but if given freely it may cause a brown discoloration; bullous eruptions have also been attributed to the use of arsenic. Part of the beneficial action of arsenic may be due to its action as an oxygen-carrier, arsenious

acid having the property of absorbing oxygen to form arsenic acid, and then returning to its original form by giving up the oxygen. The author had found arsenic to be very useful in psoriasis guttata, not so good in psoriasis diffusa, and positively harmful in the congestive form of this disease. In eczema it is not of such general use, as it is injurious in acute cases, though it is of some service in the chronic forms with scaling. Though children bear comparatively larger doses of arsenic than adults, they are more liable to pneumonia and bronchitis from its use than adults. When the eczema is malarial in origin, the arsenic may be given with much benefit and in more acute cases. Hutchinson reports 26 cases of pemphigus chronica cured by arsenic. It is, however, useless in the foliaceous form of this disease. It is useful in chronic urticaria and erythema nodosum. Benefit will follow its use in alopecia following typhoid fever and syphilis, but not in alopecia areata. Acne indurata is benefited. In the malignant diseases of the skin, such as multiple sarcoma and epithelioma, arsenic is very useful, especially in the form of Donovan's solution.

Discussion.—DR. REEVE had found arsenic useful in the furuncular habit in patients so affected.

DR. SWEETMAN had used it with marked benefit in two cases of keloid.

DR. GHENT related a case of psoriasis of nine years' standing which had been cured by giving a course of brisk purgatives, extending over a period of three weeks, and followed by a tonic of ferri carb. and port wine. Pot. chlor. was also given freely. The external treatment consisted in a wash of pot. carb. to dissolve the crusts, followed by the application of thick rice water, which formed a thin wax-like or gelatinous layer which excluded the air. Complete cure took place in about two months.

—The General Council of Medical Education and Registration have decided to recognize the preliminary examinations of the Ontario College of Physicians and Surgeons.

CANADA

Medical and Surgical Journal.

MONTREAL, FEBRUARY, 1887.

THE FUNCTION OF THE SUPRA-RENAL BODIES.

If Hoppe-Seyler's work had never gone beyond blood-pigments the medical and scientific world would have owed him a debt of lasting gratitude. He has laid in chemistry the sure foundations on which others have refined and in some instances improved. Great advances have of late been made by means of the micro-spectroscope, with which the names of Sorby and McMunn are especially associated.

McMunn's statements are very novel, and we think some of his experiments need repetition; but, unquestionably, the field is wider than it was once supposed, and there is much still to be discovered.

Kühne pointed out that the red color of muscles was owing to *hæmoglobin*. McMunn maintains that while the majority of voluntary muscles do contain hæmoglobin, in most cases it is accompanied by *myohæmatin*, in others the latter replaces hæmoglobin, and in some only hæmoglobin is found.

The heart-muscle invariably yields myohæmatin. This body has a characteristic spectrum obtained only on pressing out the tissue to great thinness. There are three bands visible: the first just before D, the next two between D and E. When the oxy-hæmoglobin bands are well marked they cover and are merged into the myohæmatin bands, which accounts for the latter not having been seen before. This pigment has been found not only in the muscles of Mammals, but also in those of Birds, Reptiles, Batrachians and Fishes. Myohæmatin is a respiratory substance.

Considerable interest attaches to the study of pigments as recently carried on from the light which, according to McMunn,

is thrown on the function of the supra-renal bodies,—a standing puzzle in physiology if not also in pathology. According to this investigator, in the supra-renals of man, the cat, dog, guinea-pig, rabbit, ox, sheep, pig and rat, the spectrum of *hæmochromogen* (reduced alkaline hæmatin ?) may be obtained from the medulla, while the cortex shows that of a *histohæmatin*. The histohæmatins are respiratory pigments, with spectrum very like that of myohæmatin.

Hæmochromogen in a vertebrate body is always probably *excretory*. It has been found in both the bile and the liver. "Hence, and owing to the darkness of its bands in the medulla of the adrenals, it must be looked upon here as excretory; if so, *the function of the adrenals must be* (*at least in part*) *to metamorphose effete hæmoglobin or hæmatin into hæmochromogen*"; if from disease, or after removal, as in Tizzoni's experiment, the effete pigment is not removed, pigmentation of the skin and mucous membranes may take place.

According to Vulpian, taurocholic acid is found in the medulla of the adrenals; further, there is considerable resemblance in the structure of the supra-renal bodies to that of the liver and the large lymphatics, which, taken in connection with the well-known results of Addison's disease, go to show that an active metabolic process is taking place in them. McMunn therefore concludes that these bodies have a large share in the downward metamorphosis of effete coloring matter. Certainly such observations throw at least some light upon a hitherto dark subject in both physiology and pathology.

THE TREATMENT OF CHRONIC DISEASE OF THE LUNGS AND AIR PASSAGES BY MEDICATED GASEOUS ENEMATA.

Dr. Bergeron of Lyons has introduced a method of treating chronic tuberculosis and other diseases of the lungs which promises to yield excellent results. It consists in the introduction into the rectum of sulphuretted hydrogen gas impregnated with carbonic acid gas. Imbued with the bacillary views of the day of the origin of tuberculosis, he has been experimenting for some time with various antiseptic agents, endeavoring to find

some one among them that possessed the power of killing the microbes and at the same time that would be innocuous to the system. In this search he was unsuccessful until he discovered the power of sulphuretted hydrogen gas when introduced into the rectum. When this gas is injected into the general circulation it acts as a powerful poison, but when introduced into the rectum it is absorbed into the venous system and rapidly and entirely eliminated by the lungs. The elimination commences almost immediately, and is rapidly completed. Cases of pulmonary phthisis treated in this way soon improve, and simultaneously there is a diminution in the number of tubercle bacilli, but the author does not claim for his treatment that it acts as a microbicide. It is well known that sulphuretted hydrogen is a powerful destroyer of the lower organisms, and it is unlikely that it acts otherwise than as a microbicide. Dr. Bergeron uses the natural sulphuretted hydrogen gas of certain mineral waters in preference to the artificial gas, on account of the pain induced by the latter when driven into the intestinal tube.

Dr. J. Henry Bennett gives a full account of Bergeron's treatment in the *British Medical Journal* for Dec'r 18, 1886, and from a short experience of it he is strongly inclined to believe that it is a very important advance. If so, it will be another illustration of the benefits derivable from comparative experimental pharmacology.

Obituary.

Joseph Morley Drake.

It is a painful duty to have to speak of the death of this, our honored and respected colleague and *confrère*, but it is, indeed, a pleasure to recal the features of a life which was a very noble, though an arduous one. Dr. Drake was entirely a self-made man, but he won for himself in his adopted country a place of which any one might be proud, securing at the same time such universal love and respect as falls to the lot of few. He has gone to his rest, leaving behind him an example of energy, perseverance, uprightness, and conscientious discharge of duty, associated with a gentle, kind and charitable spirit, which produced the natural fruits of regard and attachment.

Dr. Drake was born in London, England, in the year 1828. In that city he received a course of chemistry at the Polytechnic

Institution, and was certified as an analytical chemist at the early age of 17. He came to this country in 1845, and obtained employment as a druggist, first with Dr. Godfrey and subsequently with Carter & Co. and with Mr. S. J. Lyman. Whilst thus engaged he entered upon the study of medicine, and graduated at McGill University in 1861, obtaining the highest honors the Faculty could bestow. He was immediately appointed House Surgeon of the Montreal General Hospital, a position which he held for eight years, possessing the unlimited confidence of the Board of Governors, and being the trusted assistant of the medical staff. In 1869 he entered practice in this city; from the important public position he had held, his abilities were well known, and he at once obtained a large and influential *clientèle*. His kind and sympathetic nature, combined with medical talent of a high order, made him the trusted adviser of all those who were fortunate enough to secure his services. The Faculty of McGill University recognized in him one who possessed all the elements of a successful teacher, and very soon promoted him from the office of Demonstrator of Anatomy, which he already held, to be Professor of Clinical Medicine. His natural abilities, aided by his great hospital experience, made him thoroughly at home in this new sphere of labor. He was a thorough diagnostician, and many a good practitioner at the present day owes much of his success to the lessons learned in the wards from Dr. Drake. After a few years, the chair of Physiology became vacant by the death of Dr. Fraser, and Dr. Drake preferred to take up this branch. Here, again, the many-sided possibilities of the man showed themselves, and he delivered a course of lectures upon that difficult subject, which was highly appreciated. Soon—all too soon—it was evident to his friends that he was working beyond the limits of his physical strength. He was known to have valvular disease of the heart, and began to suffer at times severely. He was, however, a brave man, and he defied physical suffering and toiled at an arduous practice and at his teaching work when many a strong man would have acknowledged himself beaten. At last, though, to the sorrow of his colleagues and the hosts of friends who surrounded him, all had to be laid aside. He retired quietly to Abbotsford, near Montreal, where a home had been provided for his aged mother, and there died quietly on the 26th December, 1886.

Possessed of great natural abilities, of strong literary tastes, and with a passionate attachment to the medical profession, his career was a strikingly successful one. But there were qualities in the man himself which developed a remarkable and universal personal attachment—his colleagues always speak of him in the

most affectionate terms—his former patients contiuue to deplore his departure as an individual affliction—while the citizens at large feel that his loss made a blank not easily filled.

A sound, careful and enthusiastic practitioner of medicine—a successful teacher—a whole-souled friend—a man abounding in the true spirit of charity—gentle, affectionate, high-spirited, honest and honorable—has gone from amongst us. *Requiescat in pace.*

—It is with deep regret that we announce the death of Dr. J. B. Johnston of Sherbrooke. After a prolonged illness, he died quite unexpectedly on the 2nd of January, at the ripe age of 74. Dr. Johnston was one of the oldest practitioners in the province, and though of late years he had retired from active practice, his life was both a busy and a useful one. After taking his M.D. degree from Edinburgh University in 1833, and spending some time in the hospitals of London and Paris, he came out to Canada, and in 1845 began practice in Sherbrooke. From that time to 1878 he was actively engaged in the practice of his profession. His superior training as a physician und his good judgment, together with an unusual capacity for work, caused his early recognition by the profession; indeed, almost from the outset of his career he was one of the best known and most respected practitioners in the province. Dr. W. G. Johnston, Demonstrator of Pathology in McGill, is his only child.

—It is with deep regret that we record the death of Dr. Andrew McCaa Sloan of Listowel, at the early age of 27 years. He was one of the most promising young practitioners in western Ontario. His father, Dr. Sloan of Blyth, has in his great affliction the deep sympathy of his many professional friends.

Personal.

—Dr. R. P. Howard, Dean of the Medical Faculty of McGill University, has been made an Associate Fellow of the College of Physicians, Philadelphia.

—Mr. H. B. Dixon, of Balliol College, Oxford, succeeds Sir Henry Roscoe as Professor of Chemistry in Owen's College, Manchester.

—Dr. Charles E. Casgrain of Windsor, a graduate of McGill University (1851), has been appointed to fill one of the vacant senatorships.

—Dr. J. B. Gibson, who graduated in McGill in 1866, has been appointed Medical Superintendent of the Mary Fletcher Hospital, in Burlington, Vermont.