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## CANADA

# MEDICAL & SURGICAL JOURNAL

### MAY, 1888.

Original Communications.

FAREWELL ADDRESS

Delivered to the Graduates in Medicine of McGill University, March 31st, 1888.

BY GEORGE WILKINS, M.D., M.R.C.S., ENG., Professor of Medical Jurisprudence and Lecturer on Histology, McGill University.

Gentlemen Graduates in Medicine :

The duty of addressing a few parting words to you on behalf of the Medical Faculty has this year devolved upon me. Allow me, therefore, in the first place, to extend to you our hearty congratulations at receiving the degree of Doctor of Medicine which the University has just conferred on you through our esteemed and honored Principal.

In presenting you this diploma we confer privileges which, as far as the law is concerned, places you on an equal footing with the oldest and most experienced physicians. This diploma is a guarantee from the University that you have acquired the requisite training and education in the art and science of medicine to qualify you to practice that profession and to be entrusted with the lives of your fellow-men. This does not mean simply that your privileges and duties are to be confined to the curing of disease and the relief of suffering. They will embrace as well the endeavor to ascertain the causes of disease and the application of the laws of sanitary science.

The honorable position that you have now acquired, of which, I am sure, you are justly proud, is the result of four years steady hard work on your part. Nor is the pride associated with this

37

honor confined to you the recipients of the privileges. Our curriculum requires that you should spend more time under the immediate guidance and instruction of your professors, in the practical as well as in the theoretical branches, than is required by any other University or School of Medicine in this Dominion or in the United States. We have the reputation both at home and abroad, and we believe deservedly so, of having the best facilities for teaching, practically, the final as well as the primary branches of medical education.

We all feel that you have had about as much work as it is possible for man to do in the time you have been required to devote to your studies. Therefore, now that you have had conferred upon you the degree of Doctor of Medicine, we feel that we have fifty-nine more graduates who, compared with graduates elsewhere, are quite able to uphold the high reputation this University has ever striven to maintain.

I am quite certain you have been frequently told that medicine now-a-days is a very progressive science. As a matter of fact, it has within recent years made more rapid progress than any of the other sciences, with the possible exception of the oldest born-astronomy. The increasing momentum of this onward march is year by year gaining in force from the acquisition of new facts. This will necessitate continued study on your part, for your own sakes as well as for the reputation of your Alma Mater. When you begin practice, therefore, you should commence with some definite scientific object in view, one, of course, within the range of possibilities. Naturally your first desire will be to make a living; that is, provided you have no independent means. You must not, however, be in too great a hurry to have an extensive practice. When I hear a young man boasting of his being so excessively busy, I look upon him as a man lost to science. He may in the course of some years become what is called a good practical man, but then you must remember that a practical man is really one who practices the errors of his predecessors. Indeed it would be a great misfortune to any one of you to get too rapidly into practice. The history of the career of our most scientific and

successful medical men either here or on the other side of the Atlantic proves that fact. Although your four years study at college and in the hospital wards may be considered enough to qualify you for the important duties of your profession, still, as soon as you are thrown on your own resources, and are launched out in the struggle for existence in the practice of that profession, you will find continually cropping up questions that are quite new to you and which will require deep thought and study. Whether you like it or not you will be compelled, to some extent, to continue to be a student. If you have the proper scientific spirit you cannot be very long in practice without discovering from some of the cases under your care, that a great deal yet remains to be done in all the departments of medicine. Without this scientific spirit the practice of medicine is devoid of its ennobling qualities, as it is that alone which gives dignity to our calling.

Although the relief of suffering may at first sight appear to be your principal object in life, you must not lose sight of the fact that the science of medicine is one of prevention rather than cure. The mere search after remedies, although a praiseworthy and necessary work, is far inferior in its aims to the investigation of the causes of disease and the discovery of means for its extinction or avoidance. This latter is really the element in medicine that entitles it to the claim of a science. Here is an extensive field in which trained intellect is of inestimable value, and one in which you can profitably employ much of the spare time that you are certain to have in the early part of your professional career. It is a work in which any one of you, considering the training you have had, can engage and tend greatly to ameliorate the condition of our race; that is, provided you only possess the qualities of patience and industry, and are accurate in your observations. Indeed there is as much to be done in the way of new discovery in this direction as in any other field of inquiry which can be selected.

It is quite true some of your patients may occasionally give you the name of being fond of experimenting. That must not deter you from your proper course. You may if you like tell

them that our science has progressed only by experiment and observation ; that it is by the close observation of the effects of experiment made by disease, and of the thousands of popular experiments that are still being daily made by an easy going public that we hope to progress still further. As a matter of fact hundreds of little ones are being unconsciously made the subjects of experimentation with diseased milk, and thousands upon thousands of all ages are experimenting upon themselves with deadly sewer gases and the use of polluted waters; that many other similar popular experiments are being daily made. The public are the experimenters. Their experiments unfortunately too frequently, result in disease. These are some of the cases in which you practice your profession both as an ART and SCIENCE: as an art in endeavoring to overcome the injurious tendencies of disease-as a science, in closely observing and recording the symptoms, and in the endeavor to find out the cause of the disease and of its symptoms.

You are all aware of the immense strides made in Medicine of late years through the instrumentality of the microscope, and of experimental physiology, pathology and therapeutics. This may be a more attractive field for some of you, and although it may require a little more outlay in the purchase of instruments, still if at all within your means, I would strongly urge you to ovide yourself with suitable apparatus and undertake with it some special scientific work. The advantages you have had in the physical sciences as applied to medicine in the various laboratories are such as can be had in only two or three other schools of medicine on this continent, and should fit you for scientific work. Nor need you be at all discouraged upon discovering that a great many good and kind hearted people, who when ill are quite willing to take advantage of the results of scientific research, and at other times look upon it as nothing more than a hobby, or refined intellectual pursuit. I am quite certain that in after years you will never regret the time and money thus spent. Science in any of its branches is always attractive. It is particularly so when it is found to be applicable to the study of the animal organism, and that life itself embraces most of the laws of Natural Philosophy. This reminds me that many in this Province believe that Philosophy should form a part of the primary education of the medical student. I also am of that opinion, and hope you gentlemen will use your influence in that direction. Let it not, however, be a scholastic philosophy such as that in which for quite three hundred years engaged the attention of the learned men of the principal universities of Europe during the mediæval ages : where chief theme was the Aristotilian and Platonian views of the universe. Let it rather be a philosophy better adapted to the enlightened age in which we live; the philosophy of a Gallileo, Harvey, Newton, Darwin, a Pasteur, Koch-a philosophy which teaches us that Nature is subject to certain fixed laws; that so far as these laws are concerned she never errs; that those laws prevail just as certainly in the animal body as apart from it, and that the infringement of these laws result in disaster. In after-years besides finding this scientific work of great benefit to you, it will become a pleasant relief from your other occupations. Nor is it at all necessary that you should live in a large city in order to be able to engage in it. No matter how remote the country place in which you may fix your lot, you will find many methods of contributing your quota to the progressive side of medicine, if only so disposed. Koch, whose name and fame sprung into existence only eight or nine years ago, was an obscure country physician, who plodded with his microscope and in experimental pathology, in a small Ger-To-day he holds one of the highest and most man town. honorable appointments in the German empire, and his name is known throughout the civilized world. It was steady, laborious work on the part of the late lamented Cohnheim that led him, by a process of reasoning and deduction, from his observations. to foretell "in the not very distant future," to use his own words, the specific bacteria of tuberculosis, the discovery of which a couple of years later, has immortalized Koch, to whom I have just referred.

Remember, gentlemen, that the man who leads the ranks of mankind is not he who has soared above his fellow creatures in power. It is rather the man who has done most towards enlightening his fellows in their ignorance. Need I refer you as an example to that greatest of modern scientist, whose ashes are entombed in that sacred edifice, where none but the bravest and greatest of England's sons are laid at rest—where, more than once, but a few years previously, both the individual and his doctrines were denounced as bitterly as lately they have eulogized. What was the true cause of Darwin's greatness ? In the first place he himself says that he considers himself "superior to the common run of men in noticing things which "easily escape attention, and in observing them carefully." He attributes his success to his "love of science, unbounded "patience in long reflecting over any subject, industry in "observing and collecting facts, and a fair share of invention "as well as of common sense."

When we read that Lewenhock, the father of microscopy, on looking at the circulation of the blood in the fin of a small eel, by means of a small bead of glass, which he had himself fused into shape, was so delighted with what he saw that, as he says himself, "he invited several grave gentlemen to come and see it, and that they repeatedly exclaimed that "they did not think anything more curious could meet the eye." When we read of facts such as these, imagine for a moment if you can, those " grave gentlemen," or, better still, the immortal Harvey, reappearing in this sphere of ours, and listening to a recital from any one of you of what you had seen during your course of training at college, and of the observations made by you personally with the instruments of precision of the present day, during the past four years of your college course. How incredulous they would be were you to tell them, as you could truthfully, that each of you are quite prepared to domonstrate to them all that you have related.

I hope, gentlemen, you will not rest content with mediocrity. There is no profession where success depends so much on steady work. I do not mean altogether pecuniary success. I mean rather that success which has for its highest ambition that you should be recognized by your confreres both at home and abroad

as a true disciple of Hippocrates; that that recognition is due to actual advances made in the science of medicine through your work. It matters not how little that step forward may be, it must diminish suffering and probably be the means of increasing the number of human lives saved through the instrumentality of our profession. Do not hide your light under a bushel. The man who simply places on record his observations of the course of disease is doing some good work. Any new fact that you have made out, it is your duty to make known to the medical world either through the proceedings of some scientific society or through the medical press. If no more, it may be the means of directing a train of thought and research in another equally scientific mind, and by a process of gradual development result in some important benefit to our race. In the physical sciences, it is a notorious fact that some of the most abstract and apparently trivial experiments in original research have led to inventions and results of great national importance. The contractions of a frog's leg in the experiments of Galvani have, by a process of gradual development, led to the expenditure of millions upon millions of dollars in the telegraph and telephone and to an immense extension of international and individual intercourse, besides other innumerable advantages that are selfevident.

It is not an unimportant point for you all to remember that with the increased wealth of the world at large, the relative proportion to the masses of those having a more or less scientific education is enormously increasing, consequently the number of laymen who are sufficiently acquainted with subjects allied to medicine and able to detect the ignorance of pretenders is vastly greater than in former times. They well know through the press and otherwise that medicine as a science is markedly progressive, and should they observe a lack of that spirit in you, they may relegate you to the level of the followers of the mythical and insane doctrine of dilutions.

In a few days many of you will have commenced your lifelong conflict with disease and death. In this struggle you will be watched by much more critical examiners than those you

have had during the past two weeks. Your habits of life; the manner in which you occupy your spare time; the amount of common sense you are supposed to possess; the use you make of your hands, whether with the knife or in percussing the chest, or even in feeling the pulse ; your manner at the bedside,-these and many minor points will have an important effect in determining your relative success and possibly changing it very materially from that existing to-day. I am sure we all wish success to the prizemen who have so well deserved the honor, but the man who has footed the list, provided he has the natural accomplishments of a gentleman, good, sound common sense, and that he is willing to consider himself a student all his life and acts as such, must eventually succeed, and occupy a honorable position. Most of you, I presume, will become "general practitioners." As such, in the course of time you will find yourselves unconsciously become in many cases the confidential advisers in cases of emergency in matters non-medical. Here I will quote you an extract I have taken from the oath required by Hippocrates from every one entering the temple of the healing art, which I would urge you to keep in mind: " "My patients shall be treated by me to the best of my power "and judgment in the most salutary manner, without any "injury or violence. \* \* \* To whatever house I am sent, I " will always make the patient's good my aim. What-" ever I see or hear in the course of a cure or otherwise relating "to the affairs of life, nobody shall ever know of it, if it ought "to remain a secret.

It is very essential to your success, wherever you may locate, that you should secure the friendship of your fellow-workers. On no consideration do any act against your confrères that the unwritten law of the profession would consider improper. You may at first suffer a temporary loss in consequence, but it is an acknowledged fact that no man ever succeeded permanently whose success was not ratified by the members of the profession. They alone are the qualified judges of his real value, and it is usually in accordance with their judgment that he is eventually placed. You will find many difficulties, which can be overcome only by patience, courage and perseverance. When, as years roll on, and you are numbered amongst the successful practitioners, you must expect to find that your increasing reputation has its drawbacks. The dignified ease associated with the other learned professions becomes more remote as you grow older. You will, however, have the satisfied conscience that you are the more frequently instrumental in relieving the suffering of your fellow man. The discharge of your duties, when associated with kindliness and tenderness, will call forth expressions of gratitude from more than those whose sufferings you have relieved; it will also cause to arise within your own heart inexpressible feelings of thankfulness that you as an individual, not simply the money you represent, are of some use in the world.

Remember, gentlemen, wherever you go, the diploma you have so deservedly obtained is a passport amongst the members of our profession either at home or in foreign climes. Remember also the pledge demanded by Hippocrates from everyone entering the temple of the healing art : "with purity and with holiness I will pass my life and practise my art." Your Alma Mater will expect you to keep unsullied this guarantee of honor and trustworthiness she now bestows on you. I am sure, gentlemen, I express the heartfelt wish of every member of this faculty when I say, may God bless you and prosper you in your journey through life.

#### RARE FORMS OF URINARY EXTRAVASATION. By James Bell, M.D.,

Surgeon to the Montreal General Hospital.

(Read before the Medico-Chirurgical Society of Montreal.)

MR. PRESIDENT AND GENTLEMEN—I wish to bring before you to-night the reports of two cases in which urine became extravasated in unusual situations, and in each of which it pursued an unusual course. (These cases have nothing in common beyond the occurrence of this accidental condition.)

CASE I.-H. R., aged 32, was admitted to hospital on the 3rd of September last suffering from retention of urine. He was a sailor and had suffered from stricture for fifteen years, and had received treatment for it at different times in marine hospitals in all parts of the world. For years he had carried with him a No. 2 silver catheter and an ordinary wire stilette, with which he relieved himself when retention occurred. When he appeared at the hospital he stated that he had been four weeks in port and had been drinking heavily all the time, and that he had been obliged to relieve himself with his No. 2 catheter several times. but that for twenty-four hours he had not been able to pass any water, and had also failed to introduce either the catheter or the stilette, both of which he had tried. The house surgeon, after some difficulty, succeeded in passing a No. 2 catheter (English) through a stricture situated in the penile urethra, just in front of the scrotum, and emptied his bladder. The patient was very ill at the time, however, and had a temperature of about 105°F. On this account I postponed operating upon his stricture until the 6th-three days later-and then, although his condition was unchanged, I performed an internal urethrotomy and dilated the urethra to 34 (French). There was only the one stricturethat at the root of the penis-and no difficulty was experienced in the operation. As the stricture was so far forward, the rectum was not examined before nor at the time of the operation, although the patient complained of uneasiness about the neck of the bladder, which was at the time attributed to the prolonged retention. On the following day (the 7th) he was somewhat

586

better, but complained more of pain about the anus. From the perineum there was considerable tenderness on pressure over the region of the prostate, but no swelling nor sign of infiltration. Urine passing freely. Temperature 102°F.

Sept. 8th .- Patient complained of diarrhœa; pain and fever persisting. No further examination was made until the 12th, six days after operation, when the rectum was explored, the patient being anæsthetized for this purpose. The anus was red and swollen, and on introducing the finger the rectum was found to be surrounded by suppuration, which separated it from the bony pelvis as far as the finger could reach and also from the sphincter ani posteriorly and laterally, so that the finger could be introduced between the bowel and the sacrum and ischia. The sphincter was then cut through posteriorly so as to allow a freer escape of inflammatory products and the cavity washed out with a warm sublimated solution. The washing was continued daily, and three days later a large piece of the rectum was found lying loose and completely separated, and was easily withdrawn. This piece of gut measured four inches in length and finm an inch and three-quarters to two and a half in width, and consisted of the posterior and lateral walls of the gut from close upon the prostate on the left side around to the right side, but not reaching to the prostate on the right. Much sloughy cellular tissue also came away, and from this time the patient's condition rapidly improved until the 24th of October, when he left the hospital to join one of the outgoing vessels as an able The wound seemed to be quite healed at this time, the seaman. deficiency in the rectum being filled with cicatricial tissue. Defecation and micturition were normally performed, and the urethra admitted a No. 34 sound without difficulty.

There can be little doubt, I think, but that this patient, in passing the No. 2 catheter or stilette while drunk, must have wounded the neck of the bladder in or about the point of the prostate and behind the triangular ligament, and that the subsequent distension of the bladder forced a few drops of urine into the peri-rectal cellular tissue, which produced the ordinary results of urinary infiltration. CASE II.—In this case extravasation occurred into the pelvis from the reopening of a wound in the bladder which had been accidentally inflicted during the performance of an ovariotomy.

Mrs. L., aged 42, was admitted to the Montreal General Hospital on the 20th of September last suffering from an abdominal tumor which had been growing for twelve years, but which had increased rapidly in size during the last four months. Her general health was excellent. She had never had any pain, and suffered only from the inconvenience of the rapidly enlarging growth. Menstruation was regular and normal. On examination, the abdomen was seen to be enlarged to about the size of a full-term pregnancy. The tumor had evidently grown from the left side, and was round, smooth, painless on pressure, and only very indistinctly fluctuating at its most prominent point. Per vaginam, the uterus was freely movable. The diagnosis was a left parovarian tumor. The operation was performed in the usual way four days after admission, the patient being catheterized by the nurse before being brought into the operatingroom. On tapping the tumor only a few ounces of fluid could be withdrawn, and it was seen to be a dermoid cyst containing the usual semi-solid sebaceous-looking material. The abdominal wound was enlarged and the tumor delivered entire. There were no adhesions except about the left broad ligament, from between the layers of which it had to be enucleated. When this process was being accomplished a broad vascular mass of adhesion was encountered, which it was thought wise to ligature in sections and cut with the scissors. This mass was to the left and partly in front of the tumor, and, unknown to the operator, contained a portion of the fundus of the bladder, which had been carried high up into the abdomen by the growth of the tumor. In this way, therefore, the bladder was wounded, an incision about an inch long having been made into its upper and posterior surface with the scissors. This was immediately sutured with catgut after Lembert's method and the tumor removed. The operation was concluded, the wound closed and a dressing applied, and the patient made uninterrupted progress until the twelfth day. For the first four days a soft rubber catheter was tied

into the urethra; from this time it was removed and passed every two hours. On the twelfth day the nurse (a new one) complained that she "could not get the catheter in far enough," and that the urine withdrawn had been bloody. The patient also complained that the passage of the catheter pained her. It was then ordered to be passed every four hours, and the bladder was washed out daily with a weak solution of salicylic acid dissolved with borax. Next day a small hard mass about as large as a marble was observed at the lower end of the abdominal incision, which was painful on manipulation. This mass remained without much change, and irritability of the bladder with fætid bloody urine persisted. Con the eighteenth day after operation the mass was found to have suddenly disappeared, but the patient complained of pain and tenderness over the left inguinal region and in the left loin. These symptoms, together with a marked diminution in the amount of urine withdrawn by the catheter made it clear that a general extravasation of urine had occurred into the left side of the pelvis. The patient was therefore anæsthetized and the abdomen opened through the lower inch of the original incision (over the site of the little hard mass which had first appeared). Urine flowed from this incision, and on exploring with the finger an opening could be felt in the fundus of the bladder which would almost admit the point of the little finger, while a larger sinus led down into the left side of the pelvis. Through this last a pair of long forceps was introduced and protruded into the left side of Douglass' fossa, when an incision was made into the vagina. A large drainage-tube was then drawn from the vagina through this opening and up through the abdominal wound and a large soft catheter tied into the urethra. The whole cavity, as well as the bladder, was then thoroughly washed out with a solution of salicylic acid and borax, the wound freely dusted with iodoform. and a gauze dressing applied. The drainage was very satisfactory and the patient's condition immediately improved. The wound was irrigated and dusted with iodoform and dressed as above described daily. Four days after the incision sloughs of cellular tissue began to come away in enormous masses, and an incision into the loin was found to be

necessary on account of a collection of sloughy tissue in that The sloughs were soon all removed, and about this time region. (fourteen days after incision) a dark jelly-like, fermenting substance came away from the wound in considerable quantity for a few days. It was odorless, and a careful microscopical and chemical examination failed to determine its exact nature. The bowels acted normally throughout. During the separation of the sloughs the patient suffered from severe sciatic pain and hyperæsthesia of both legs. These symptoms began on the left side, and were more severe and lasted longer on that side. By the 20th of October all these symptoms had disappeared, the wounds were looking healthy, the bladder wound was nearly closed, the use of iodoform, which had been of late greatly lessened, was now entirely discontinued, and the prospects of recovery were most encouraging. It is worthy of note here that until the sloughs began to separate there was no elevation of temperature whatever, and at no time was the temperature high or continuous, but from the onset of the bladder symptoms the pulse remained rapid-from 100-120. About the 1st of November an acute mania developed, and from this time, although the local conditions continued to improve, the patient had to be forcibly restrained. She refused food, and was in a state of maniacal excitement day and night, without sleep and with frequent involuntary evacuations, gradually and perceptibly sinking until the 9th of November, when she died; at the end of the eighth week after operation. Slight delirium at night and a peevish, nervous condition of the patient, especially while being dressed, had been observed for a few days before the violent maniacal symptoms set in. These latter lasted about eight days. and were accompanied by very rapid emaciation. Unfortunately an autopsy could not be obtained.

This case presents many points of interest, and illustrates a chapter of accidents such as it fortunately seldom falls to the lot of the surgeon to report in any individual case.

(1) It emphasizes the necessity for instrumental exploration of the bladder by the surgeon before operating. It had heretefore been my practice to allow the nurse to catheterize the patient before bringing her into the operating room. This was done with the double object of shortening the period of anæsthesia and to avoid soiling the hands after having cleansed them for operation. Important as these matters are, however, they are not to be compared with the risk of wounding the bladder, which is occasionally carried high up into the abdomen on the surface of the tumor.

(2) It strengthens the evidence already existing to show that catgut is not to be relied upon as a suture to retain the contents of a hollow viscus. I may say here that from past experience I would not have used catgut, but that no suitable silk was at hand at the moment.

(3) The necessity for careful and thorough catheterization for at least two weeks after an accident of this kind is here shown.

Finally, with regard to the acute maniacal condition, which was the immediate cause of death, and which supervened when to all appearances the other difficulties had been overcome, I have two suggestions to make, viz., that it was due either to the toxic effects of iodoform or to the absorption of ptomaines or leucomaines from the urine retained and decomposing in the cellular tissue of the pelvis? The patient was a healthy, vigorous woman, with an excellent family history, and who had never suffered from any form of nervous derangement in her life. On the other hand, the use of iodoform had been practically discontinued for several days before the maniacal symptoms appeared, and the cavity had been thoroughly irrigated every day with a solution of salicylic acid and borax.

I need only mention here a third case, in which, during the performance of an ovariotomy, a strong fibrous band connecting the surface of the tumor with the base of the bladder was stripped off from the latter tearing away its peritoneal covering over a small area. Nothing was thought of this at the time, and the patient made an excellent recovery; but two weeks after operation a small inflammatory mass appeared at the lower angle of the abdominal wound. This was thought to be a stitch-hole abscess, but on pressing it an amber-colored fluid exuded. A large soft catheter retained in the urethra for ten days not only gave immediate relief to the symptoms, but effected a complete cure.

The history of these cases shows that the necessity for early surgical interference where extravasation of urine has occurred within the pelvis, no matter how slightly or how gradually occurring, is as great or greater than for extravasation into the perineal tissues. Had I recognized the condition sufficiently early in case No. 2 of this series, I have no doubt but that I would have saved my patient.

#### QUARTERLY RETROSPECT OF OBSTETRICS AND GYNÆCOLOGY.

PREPARED BY T. JOHNSON ALLOWAY, M.D., Gynæcologist, Montreal Dispensary; Assistant Surgeon, Montreal General Hospital.

In the British Gynæcological Journal of February Dr. Purcell, of the Cancer Hospital, reports a case of vaginal hysterectomy for carcinoma. The interesting points in connection with the report are that Dr. Purcell ligatured the broad ligaments en masse on each side after getting into the peritoneal cavity above and below. He also uses a glass drainage tube not open at the bottom, but containing holes. Tube removed for first time on the fourth day after operation, when all was well. On the following day, however, symptoms of cellulitis, peritonitis and formation of pus became evident. These symptoms subsided after injection through tube of iodine-water.

In commenting upon the case, we do not think the glass tube of Tait is an improvement on the T-shaped rubber tube of Martin combined with the iodoform packing introduced by Fritsch. It would have also been better had the tube and dressings in Dr. Purcell's case been left undisturbed for at least the sixth or seventh day after the operation. The interferance on the fourth day was quickly followed by the formation of infective pus. The reason of this is evident and clear; the lymph spaces in the connective tissue wounds are not properly closed until after the sixth or seventh day, and therefore should be left completely at rest until after that time.

At the same meeting the President, Dr. Granville Bantock, reported a case in which he had performed vaginal hysterectomy. Dr. Bantock's case was one of malignant disease of the body of the uterus, cases of which are so favorable for good results after vaginal hysterectomy. Bantock's method of operating differs somewhat from that described by Purcell, in that after circumcising the vaginal vault he separated first the bladder from the uterus with the finger. In effecting the separation of the structures laterally, whenever he came across a resisting band he applied a pair of pressure forceps and divided the band between the instrument and the uterus. Meanwhile traction was kept up by means of a volsella fixed in the cervix, and with each division of a resisting band the uterus descended a little. In this way he proceeded towards the fundus, and he was able to bring the posterior aspect of the broad ligament at its junction with the uterus into view and divide it piecemeal, and thus see any bleeding vessel. All the vessels were thus secured by pressure forceps and afterwards ligatured separately. Finally the pelvis is washed out with warm water and a drainage-tube inserted, which is packed lightly around with iodoform gauze. In this case the bladder after forty-eight hours gave way and necessitated the performance of a second operation some time afterwards for the closing of the fistula.

In considering this method of Bantock side by side with that of August Martin, of boldly opening into Douglass's pouch at once and by the guidance of the left forefinger suturing the vessel-containing tissues with curved needles armed with stout silk and dividing between silk and uterus, we would prefer the latter in which we have had experience. In Bantock's method it appears to some extent groping in the dark, and the instruments allowed to accumulate in the vagina must ere long obstruct and hinder the operator.

Enucleation by Electrolysis of a large Uterine Fibroid.— Dr. Holland reports a case aged 38, mother of seven children, severely blanched and flooding when admitted. Upper limit of tumor level with umbilicus, hard and multiform. A negative current of 50 milliampères for ten minutes; in three days 80 mill., and in four days afterwards 150 mill. Pain followed this last application. Ten days afterwards, the hemorrhage continuing, positive pole 250 mill. applied for twelve minutes. The hemorrhage now became arrested and did not return. In three days A.P.N. 250 mill. again applied for ten minutes. In three days A.P.N. 250 mill. In three days A.P.N. 300 mill. In three days A.P.N. 235 mill. Following this last application patient had chilly sensations, rise of temperature, and an increasingly more and more foetid discharge became established. Severe pain and cvident sloughing of the mass now set in. The temperature continued high and within a few days a large sloughing mass was bloodlessly enucleated and extruded into the vagina. In a few days another large and similar mass was expelled. The removal of these masses was attended with considerable difficulty. In the instance of the first, the left lateral wall of the uterus became inverted, and was with difficulty separated from the mass and replaced. Douches of chlorine water were assiduously employed every three hours, and with the aid of quinine, kept the temperature under control. In fifteen days from time of expulsion of second mass the patient was convalescent, the uterus measured 23 inches, and there was no evidence of tumor. All this was accomplished in exactly fifty-five days. The tetanoid condition into which this character of tumor is thrown by the electric current is urged by Dr. Holland as a means to be used in diagnosis when there is a doubt between uterine and other tumors. And we would here add that the action of electricity and of ergot upon uterine tumors are of a somewhat similar nature if we take the action of electricity in the above case as a type. They both tend to arrest hemorrhage, and the danger in abuse of both is similar, viz., death of the growth from strangulation.

Dr. Burford has seen this tetanoid condition of uterus continue for five or six hours after application, and states that he has seen 700 milliampères A.P.P. used without much intolerance and no evil results ensuing.

Dr. Mansell-Moullin stated that the electric current would be of use in aiding the treatment of fibroid by enucleation. It would force the tumor down into the pelvis and make it more accessible. But there was, in his opinion, no evidence of its causing a diminution in bulk, as claimed for the electrolytic current of Apostoli. In the numerous cases in which he had seen the treatment carried out with that view, failure had been the result in every instance.

Dr. Heywood Smith reported a hysterectomy; uterus weighing 73 pounds. Tumor when in situ reached two inches above um-It was multiform and the cavity measured  $7\frac{1}{2}$  inches. bilicus. The interesting point in this case consisted in the discovery, on opening the cavity of the uterus, of a polypus about the size of a Tangerine orange growing out from the fundus. A similar case to this Dr. Bantock had reported some short time ago. Dr. Heywood Smith drew attention to the fibroid outgrowths and to the numerous separate fibroid tumors that were imbedded in the uterine walls, and in view of the exceedingly strong remarks made by Dr. Thomas Keith (Brit. Med. Jour., Dec. 10) against the operation of hysterectomy, he wished to ask whether the electrolytic method of Apostoli would have had any beneficial effect in the case of the tumor he now exhibited, and whether many cases did not arise where it would be worse than a waste of time to subject a patient to such treatment with the probability of having to have recourse to the operation of extirpation after all.

Dr. Fancourt Barnes stated that he had in one of his wards at the present moment a patient with a fibroid tumor of the uterus whom he had allowed, at her own request, to be treated afte. Apostoli's method by one of his colleagues. The result was that her temperature rose within a few days to 103°F., and in addition to developing various symptoms of blood-poisoning, she has had a painful swelling in the axilla, with pain in the right elbow-joint and phlebitis of right arm. Her present condition was very serious.

Dr. Bedford Fenwick, of the Hospital for Women, Soho Square, read a paper "On the Use of Local Blood-letting in Gynæcological Cases." Dr. Fenwick, in speaking of the various methods employed, tells the strange story of a leech, through its innate love of investigation as a traveller, having escaped from the vagina up through the cervix, uterus and fallopian tubes to the abdominal cavity, there giving rise to an hæmatocele from which the patient recovered after months of invalidism. The moral Dr. Fenwick draws from this is—Do not apply leeches in the vagina. He recommends Fergusson's speculum to expose the cervix, and a Buttle's scarificator or some such knife to puncture the part with, the patient lying on her side. The vagina is afterwards injected with hot water and a cotton tampon applied. The following are the cases in which Dr. Fenwick has found most suitable for benefit by this method :

1. When cervix presents a deep bluish appearance, evidencing much and long continued congestion of the uterus.

2. In cases of throbbing or having pain over region of ovaries.

3. By leeches around anus in cases where the cause is the presence of inflamed hæmorrhoids and such like congestive conditions.

Dr. Fenwick then cites a case of dysmenorrhœa and dyspareunia associated with conical cervix. This patient returned on four different occasions some distance apart "to have more blood drawn." She would quite recover from pains after the operation, but all would return again in a few months.

Case 2.—A case of congestion from retroflexion following subinvolution and chronic metritis cured by one "bleeding." (?)

Case 3.—Case of lacerated cervix; subinvoluted uterus heavy, large and tender, sound passing  $3\frac{3}{4}$  inches; cervix large, deeply lacerated, lips everted, large, deeply congested, almost purple in color. She was scarified five times. Ergot and a tonic given, In three months the uterus was reduced by  $2\frac{3}{4}$  inches and the patient cured. Dr. Fenwick stated that this case had been under treatment in two general hospitals and one special hospital without relief, and that he presumes Emmet's operation should have been performed, from a theoretical point of view, or that she probably should have had intra- and extra-uterine cauterization, but that he considered his scarification plan as more scientific and common-sense.

Case 4 .- Endometritis and sterility. Scarified weekly for

three weeks and hot douches ordered night and morning. In three weeks the erosion was healed, the cervix was pink instead of bluish, and the discharge had almost ceased. She became pregnant.

Case 4.—Subacute ovaritis. Nine leeches applied over left side, which restored her at once completely; was out of bed in three days. This woman, Dr. Fenwick insinuates, had a narrow escape from having her ovaries removed by a well-known London specialist.

In the discussion on Dr. Fenwick's paper it was generally conceded that the old-fashioned plan of blood-letting, local or general, gave temporary relief to the congested part, but that this relief was purely temporary and not curative. It is well known that scarification of the cervix for the relief of almost any pelvic pain woman is heir to has been well tried and extensively carried out in its day of fashion, and that its necessary repetition proved so irksome, unsatisfactory and so purely devoid of rationalism consistent with the pathology of chronic uterine inflammation, it was given up gradually as progressive surgeons became more enlightened in uterine pathology. The practice has also been found not free from danger through excessive hemorrhage. Further, to say that a deeply lacerated cervix followed by subinvolution and general hyperplasia can be cured by scarification is stating a good deal more than our experience will allow us to accept. We have had one such case within the last few months admitted to the Montreal General Hospital with the history of having been scarified and burnt for some months at one of the London hospitals. A few days after admission the whole of the diseased tissue was exsected after Schroeder's method. She was discharged as cured in eighteen days-a result somewhat more rapid and radical than that by the method of scarification. Local blood letting in chronic pelvic disease may suit the medical gynæcologist, but his cases will eventually find their way to the surgeon.

Treatment of Gonorrheal Vaginitis and Endometritis.— Dr. Fritsch strongly recommends the use of chloride of zinc solution in the treatment of these conditions. He uses equal parts of chloride of zinc and water, and of this adds 20 grains to one litre of water at a temperature of 30°R. This solution is used as a vaginal douche twice a day.

The Pathology and Treatment of Abortion.—When abortion is inevitable, many cases end satisfactorily if the usual antiseptic precautions be observed; in neglected cases death only occurs from hemorrhage or sepsis. The four chief indications to be recognized are: (1) Control hemorrhage; (2) Relieve pain; (3) Dilate cervix; (4) Empty the uterus. To control hemorrhage use the plug. If the cervix is open and the ovum protruding ergot is indicated, otherwise ergot is contraindicated. To relieve nervous symptoms, chloral and bromides, Indian hemp or opium may be given. If the ovum is not detached, or only a portion expelled, the uterus may be emptied: For this purpose the finger or ovum forceps are the best for the purpose. —(J. A. Lycett, M.D., Birmingham Med. Review.)

The teaching here is certainly very old and dangerous. We hope the plugging method of treatment will soon be fought shy of. The only rational mode of treating abortion is contained in the last indication, viz., to empty the uterus. Lives are only lost when it is done too late. Procrastination or an expectant course is the most fatal to pursue. Dr. Mundé reports in his paper 57 cases treated with one death. In this fatal case the abortion was self-induced, carrying with it possible severe traumatism to the uterus. At the time of operation the patient was septicæmic, with a temperature of 103°F, and the immediate effect of the operation was a fall of temperature to 98°. I have operated during the past five years in over one hundred cases with one death. This fatal case occurred in a patient who lived some distance from town. She had been profoundly septicæmic at the time of the operation and had been so for some days previous. In a few hours following the operation secondary pyzemic manifestations showed themselves in the joints, and the patient died of pyzemia in hospital a few days afterwards. The result of this case shows that the prognosis after operation in such a case is directly in relation to the duration and degree of intensity of the septic phenomena.

Abortion is fraught with more danger to the woman than labor at full term. It is, as Goodell puts it, "as the plucking of immature fruit." By active and timely interference the patient is spared the danger from profuse hemorrhage which might occur at any time during the absence of the physician. Then there is ever the risk of septic infection setting in, after the advent of which no one can say with certainty which way the case will end. By active intervention is not meant unnecessary interference. Nature is ever to be given a chance; but when we see that she fails to accomplish the removal of her dead fruit it is but rational that we should come to her aid as quickly as possible. Active intervention in cases of incomplete abortion was first strongly advocated by Dr. Paul F. Mundé of New York and by myself, in two articles appearing simultaneously in the February (1883) number of the Amer. Journal of Obstetrics.

Treatment of Cancer of the Uterus.—Cancer of the uterus can be completely cured by vaginal hysterectomy, provided the disease be still in its early stage and the incision for the removal of the uterus be made in healthy tissue. The extirpation must be complete, as it is impossible to define the limits of healthy and diseased tissues. In the early stages there will be some erosion, on the surface of which small nodules, dark-red or yellowish-red, project and which bleed very easily. At first these nodules appear innocent, but if removed and examined microscropically they present all the characteristics of cancer. According to Prof. Schanta total extirpation of the uterus gives the best results—70 per cent. of cases ending in "complete restoration to health."—(Prof. Schanta, Pittsburg Med. Review.)

The Technique of Vaginal Hysterectomy—(A. Martin.)— It is of little consequence on which side of the uterus detachment from the vagina is begun. The author prefers beginning on the posterior fornix, as the peritoneum is easier to reach. It must be a requisite that there is free mobility of the uterus. The detachment of the lateral fornix must reach right to the side of the body of the uterus. Always complete the operation on one side before proceeding to the other. It is to detach the bladder after both sides and the back of the uterus have been made free,

and great care must be taken in this step of the operation, which is best performed with the fingers. Occasionally the author has punctured the bladder with the suturing needle, but no harm has resulted. In two cases he has opened the bladder, forming a vesico-peritoneal fistula. In both of these cases recovery took The author has never injured the ureters, which, he place. says, are close under the pubic arch and far from the cervix. To remove the uterus the fundus may, if large, be everted through the posterior opening; in other cases there is no need to proceed to evert. The ovaries and Fallopian tubes should be removed if possible, the ligatures inserted into the lateral part of the broad ligament. Any bleeding points are ligated either separately or in one large ligature. The intestines seldom or never prolapse. It is better not to close the vaginal opening, through which a drainage-tube is passed, the outer end of the tube being covered with salicylated cotton. This tube is removed on the eighth day. The bowels are moved on the fourth day, and the patient allowed to get up between the tenth and twelfth days.-(Amer. Jour. of Obstetrics.)

The Operative Treatment of Retroflexion of the Uterus .-Sänger (Centralblatt für Gynakologie, Jan. 14, 1888) makes a valuable contribution on this subject, in which he presents a brief, but comprehensive, historical view. He estimates that in at least twenty per cent. of cases of retro-displacement it is impossible to keep the uterus in its normal position after replacing it. Why, he asks, can we not, in those cases in which the organ is only retained in position when a pessary is introduced, perform some operation which will render the pessary unnecessary ? The essentials demanded of such an operation must be safety and the restoration of a condition which corresponds as closely as possible to the natural one. This desideratum has not yet been attained. He divides the various operative procedures into the indirect and the direct. Among the former he includes : 1, Repair of the lacerated perineum, with correction of the prolapse of the vagina and uterus. 2, Repair of the lacerated cervix alone. 3, Amputation of the portio vaginalis. 3, Removal by laparotomy of any neoplasm which may directly cause

the displacement. 4, Removal of the uterine appendages. As an illustration of the latter method, he cites a case in which he removed the ovaries in order to relieve various hystero-neuroses associated with menorrhagia. The uterus was retroflexed. Some months after the operation the hemorrhage recurred. On examination, the uterus was found to be still retroflexed and no smaller than before. The left stump appeared to be thickened and tender on pressure. At the earnest request of the patient laparotomywas performed a second time, and the affected stump was freed from the adhesions which it had contracted. The adherent uterus was detached, anteverted, and retained in position by means of a Hodge pessary. Although the organ soon returned to its former malposition, it decreased in size, the hemorrhage ceased, and the patient was entirely relieved. It was evident from this that persistent hemorrhage from a retro-displaced uterus after castration was to be ascribed directly to the retroflexion. Among the indirect operative measures may be classed Schultze's method of separating periuterine adhesions by bimanual manipulation. Of the direct operations he mentions (1) Von Rabenau's method of resecting a portion of the vaginal wall, in order that traction on the cervix may result from the resulting cicatricial contraction; (2) Alexander's operation, which in itself is not enough, as it does not attack the cause of the displacement, although, if combined with shortening of the antagonizing utero-sacral ligaments, it may be made more efficient; (3) the treatment of retroflexion by laparotomy and ventral fixation of the organ. The latter operation was first attempted by Koeberle in 1877. After removing the ovaries he sewed the stumps in the abdominal wound. P. Müller, a year later, attached the fundus to the abdominal wall. Schultze, writing on this subject in 1881, said that the performance of laparotomy for the express purpose of curing retroflexion was only justifiable after attempts to break up the adhesions by bimanual pressure had proved unsuccessful, and that even then it was too dangerous a procedure to be advised. Olshausen renewed the discussion of the subject in 1885, and reported two cases, in one of which he attached the stumps (after oöphorectomy) to the lateral walls of the pelvis, while in the

other the sutures were introduced through the cornua of the uterus, at the base of the round ligaments, and were then carried as deeply as possible through the muscles of the abdominal wall. In this way a greater range of motion was obtained for the uterus than was the case when the fundus was attached. Tait reported two cases in 1880, and Hennig another in 1881, beside others by Bardeleben and Czerny, and two by Sänger. Soon after Olshausen's paper appeared, Dr. Howard A. Kelly of Philadelphia performed an operation, which he subsequently reported under the name "hysterorrhaphy," a word to which Sänger objects, since from its etymology it would imply a plastic operation upon the uterus itself; "gastro-hysterosynaphia," or "ventro-fixatio uteri," are suggested as being more appropriate terms. The following variations in technique have been practised : 1. Removal of the appendages and suture of both stumps in the abdominal wound. 2. Ovariotomy and suture of a single stump in the wound. 3. Removal of the appendages and attachment of the fundus uteri to the abdominal wall. 4. Attachment of one stump to the abdominal wall. 5. Attachment of both stumps as in 4. 6. Suture of the cornua uteri to the abdominal wall, without removal of the appendages. The author reports seven operations performed after different methods, in all of which the uterus was permanently fixed in the normal position. It is frequently stated; he concludes, that after the removal of the appendages the retro-displaced uterus diminishes in size and gives rise to no further symptoms, but this retrograde process is often indefinitely delayed, while pain and hemorrhage persist .-- (Amer. Jour. of Med. Sciences.)

pouch, and left it *in situ* for three or four weeks. The advantages claimed for the tube were:

1. The cavity could be washed out daily, so that blood or exudation could not collect in it.

2. The uterus was supported in its new position during the entire process of healing, so that no strain was thrown upon the stump.

3. A layer of organized lymph formed around the drainagetube, which layer subsequently became a firm cord of connective tissue that "thickened the posterior wall of the uterus and also formed a second point of fixation to the abdominal wall."

No bad effects followed the introduction of the tube, which, after the fourth day, was daily turned about on its long axis in order that the lateral openings might not become plugged; shorter tubes were substituted later for the original one. Sepsis was absent in every instance in spite of the prolonged use of In three cases only was it necessary subsequently the tube. to correct the position of the uterus with a pessary, by reason of the formation of fresh retro-uterine adhesions which tended to draw the organ backward. The uterus remained in a position of anteversion and was freely movable; the operation was free from pain, and there was no disturbance of the functions of the bladder. Hernia had never followed the operation, in spite of the use of the tube, which was the more remarkable as Klotz had seen a hernial protrusion caused by attaching the fundus uteri to the abdominal wall.-Ibid.

603

604

Reviews and Notices of Books.

A Manual of Physiology. A Text-book for Students of Medicine.—By GERALD F. YEO, M.D., Dubl., F.R.C.S., Professor of Physiology in King's College, London. Third American from the second English edition, with 321 illustrations and a glossary. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. Montreal: C. Ashford, Dorchester street.

The fact that this book has reached three American editions in so short a time is ample evidence of its popularity. This work did really supply a want, being in moderate compass a somewhat concise statement of the essentials of physiology, yet well up to date, fully illustrated, and giving at once the facts and methods most needful for the ordinary medical student. In the earlier editions a few passages were somewhat obscure or inaccurate and required rewriting. This has been done to some extent at least. New illustrations have been supplied and a small amount of additional matter thought necessary by the progress of physiological science in the meantime. The preservation of an excellent balance between the different parts of the work, and the introduction of just about the proper amount of anatomy, are features in which it excels most text-books. We have always thought well of this work, and wish it continued success.

A Practical Treatise on Diseases of the Skin.— By JAMES NEVINS HYDE, A.M., M.D. Second edition. Philadelphia: Lea Brothers & Co. 1888.

We heartily welcome the second edition of this most excellent work. Some years ago we had the pleasure of reviewing the first edition, and at that time strongly recommended it as the best book in English which set forth the principles and practice of the great Vienna school of Dermatology as created by Hebra. The second edition contains one hundred pages more than the first, and much of the book has been rewritten. Two colored plates and numerous woodcuts have been added. The work is concisely and clearly written, and too much theorizing is not indulged in. When speaking of the administration of internal remedies for skin diseases, the author remarks "it can be safely said that there are no remedies to be given by the mouth which can be described as certainly and specifically curative." How often practitioners expect to cure skin disease by the administration of arsenic or salines is well known to dermatologists. Dr. Hyde looks upon arsenic as being a very uncertain remedy in the treatment of diseases of the skin. Unna's salve-muslins are highly spoken of, but the great expense is an objection to their use. When speaking of Lichen scrofulosum, Dr. Hyde states that it has not yet been recognized in this country. A case was reported in the CANADA MEDICAL AND SURGICAL JOURNAL for December 1880, to which we should like to draw the author's attention. In conclusion, we may say that this work is not only well suited as a text-book of the higher class for students, but it is in every way adapted to the wants of the scientific general practitioner.

The Treatment of Hæmorrhoids by Injections of Carbolic Acid and other Substances.—By SILAS T. YOUNT, M.D. Second edition. 1888; pp. 102.

This little work is evidently intended for popular perusal, and is meant to show how much better the author's mode of treatment is for the patient than that adopted by most surgeons. All that is contained in it of use to the profession might easily be compressed into a medical journal article of no great length. The padding consists of the weakest kind of anatomical description of the rectum and its blood supply, a great number of prescriptions and "sure cures," and reports of cases cured by his method of injection. The following is a sample case : "R.J.S., aged 36, has had piles for several years. First consulted me for loss of sexual power. On obtaining a complete history, I was sure that a part of his trouble was due to an aggravated case of hæmorrhoids. The impotency in this case was purely reflex, due to the presence of the piles. I commenced injecting them with a five per cent. solution. He progressed rapidly and was discharged cured in about two months, without sloughing or loss of time." Describing another case he says: "A wealthy gentleman from a distance came to me to be treated for a severe case of internal hæmorrhoids. I was doubly anxious to cure him, because I wanted the big fee he offered me, and, besides, his recommendations would be worth much," etc., etc. He speaks of oil of sandalwood as a remedy which "relieves congestion and engorgement of the portal system, and also depurates the blood generally."

Dr. Yount has invented a speculum which he considers the very best—in fact, the only one that fulfils all the requirements necessary in a speculum. Speaking of the danger of injecting a too strong solution of carbolic acid, he says: "If I had to be treated for hæmorrhoids, and had the choice of either the ligature or strong injections of carbolic acid, I would take the ligature first, last, and all the time."

No doubt treatment by the injection of weak solutions of carbolic acid has its advantages when properly performed in selected cases. It is comparatively painless and free from danger, and people who like to be "worked over" will be pleased with it, as takes from two to four months to effect a cure. The language is not very choice or scientific, as the samples given above show, but we have not the slightest doubt that a new edition will soon be called for by those individuals who, being conscious of a rectum (*mens conscia recti*), desire to know all about that dark and unsavoury department of their economy. The book is cheaply got up, the chapters are short and the margins wide, the print is large, and the illustrations unobjectionable.

Obstetric Synopsis.—By JOHN S. STEWART, M.D. Philadelphia: F. A. Davis. 1888.

This book is a synopsis of Prof. W. S. Stewart's course of lectures at the Medico-Chirurgical College, Philadelphia, prepared under his immediate supervision. It will no doubt be a valuable help to students who have heard his loctures, but it can scarcely be recommended to others. It is impossible to compress into 184 small pages all that a student should know about midwifery, and the great objection to such manuals must always be

606

that they tempt the idle to cram. The new obstetrical nomenclature adopted at the Washington International Congress has been inserted as an appendix. This is as it should be, and it is to be hoped that other authors will follow Dr. Stewart's example.

#### Society Proceedings.

# MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, February 3rd, 1888.

JAS. PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

Drs. Spendlove and Laberge were elected members.

Amyotrophic Lateral Spinal Sclerosis.-DR. STEWARTshowed a case of amyotrophic lateral sclerosis. The patient, a man aged 34, always enjoyed good health until his present trouble begar, which was about a year ago. The first symptom complained of was a feeling of pricking, coupled with a cold sensation in the ball of the left thumb. Shortly afterwards, wasting of the thenar eminence was noticed, and this was quickly followed by wasting of the interossci of the same hand. At the present time there is very marked atrophy of the left thenar and hypothenar eminences, and of all the interossci of the same There is slight wasting of the flexors on the anterior surside. face of the forearm and of the biceps and deltoid of the same side. The spinati, as well as the rhomboids and pectorals, are also the seat of marked atrophy. There is slight wasting of the corresponding muscles of the right hand, arm and shoulder. The atrophic muscles are subject to fibrillary twitchings; many apparently normal muscles are also subject to these twitchings. He complains of "waves of twitchings" passing through his head (scalp). The muscles of the lower extremities are very frequently the seat of these troublesome twitchings. The left hand and shoulder atrophic muscles exhibit a modified reaction of degeneration, the contractions being very slow while the A S Z < K S Z. During the past ten days there has been a gradually increasing loss of power in the left lower limb. This has now attained a degree almost sufficient to prevent the patient,

going about. The degree of paralysis varies considerably from day to day. The paralyzed muscles are neither atrophied nor hypertrophied. They are, however, in a constant hypertonic state. There is marked exaggeration of the knee-jerks. Ankle clonus is present. The biceps and triceps reflexes of the upper extremities are marked also. The integument over the wasted districts is constantly covered with a profuse, clammy perspiration, and at times a papular rash appears, but usually only lasts a few hours. There is no atrophy of any of the facial muscles. There is no history of heredity. The case is evidently myelopathic in origin. It is a well-marked example of Charcot's "Amyotrophic Lateral Sclerosis."

Pathological Specimens.-(1) Potts' Curvature.-DR. JOHN-STON exhibited for Dr. Roddick a case of very extensive caries of the vertebræ with psoas abscesses. The caries involved the bodies of all the dorsal vertebræ and a large retro-thoracic abscess had formed in consequence, but without giving rise to any symptoms. The bodies of the last dorsal and first and second lumbar vertebræ were completely destroyed, causing a marked angular curvature. The psoas abscesses were perfectly symmetrical; passing in front of the psoas tendon below Poupart's ligament, they had in each case passed backward and inward, reaching to the fold of the buttock near the lesser trochanters. On the left side the abscess had passed down to the popliteal space when it was opened by Dr. Roddick; Dr. Bell had subsequently opened it above in the left gluteal region. There was no tuberculosis anywhere, and the walls of the abscess showed no tubercles. The pus contained no tubercle bacilli.

(2) General Tuberculosis.—DR. JOHNSTON showed another case of vertebral disease, where the bodies of the second and third lumbar vertebræ were infiltrated with extensive caseous areas. A small tuberculous abscess had formed in the right side, at the level of the third lumbar body. This had involved a small vein opening into the vena cava inferior. There was acute miliary tuberculosis of both lungs, which had caused his death. The patient had been under Dr. Ross with symptoms of deep-seated pain referred to the right sacro-iliac articulations.

Nephrotomy.-DR. SHEPHERD related a case of nephrotomy for hydro-nephrosis which was followed by death in two days. The following is the history of the case: C. W., aged 66. a tall, thin man, who had always been healthy, though there was a tuberculous family history, was suddenly seized some two years before with acute pain in the left renal region, which passed down towards the bladder. It was relieved by opiates, and afterwards for a time he felt fairly well. He had a second similar attack of severe pain a month or two afterwards. After this he began to urinate more frequently, and occasionally the urine was bloody. He, however, attended to his business and was in fairly good health. About a year ago he noticed that his urine was thickish, and that he made it more frequently. This was benefited by treatment, though up to four weeks ago, when he had to take to his bed, he was continually growing weaker and losing flesh. His urine was never free from sediment, and he had occasional attacks of painful and frequent micturition. He had a chill some time in October and took to his bed; his micturition now became more painful, pain greatest at point of penis, and the deposit in his urine was increased in amount. His urine was still occasionally bloody. Dr. Shepherd first saw him in December; he was then in a weak condition, passing his urine painfully and frequently. There was a large amount of pus in urine; nearly one-sixth of whole amount passed (45 oz.) daily was pus. Urine perfectly sweet; specific gravity 1010, alkaline and containing a slight amount of albumen. He also complained of severe and continuous pain in his bladder. On examination, the bladder was found to give no evidence of stone, but patient had a moderately large prostate. On examining the region of the kidney, pressure below the last rib on right side gave rise to severe pain, and there was a distinct fulness to be felt there. This fulness and pain on pressure did not exist on the left side. Under ether, a tumor could be made out in the region of the right kidney. This was aspirated and some three or four ounces of clear fluid drawn off, which had no urinous smell, but on chemical examination proved to be almost pure urine. No pus was evacuated. After each examination patient passed large

39

quantities of bloody urine. The patient's condition not improving, and, in fact, growing much worse, operation was suggested. For some time Dr. Shepherd was in doubt as to which kidney was manufacturing the pus, the right kidney, on aspiration, giving clear fluid and the history of renal colic being on left side. However, as the pain and tumor existed in the right, it was determined to explore this side. This was done on Jan'v 22nd. Drs. Fenwick and Ross assisting. There was considerable fat, but the kidney was easily reached, and on examination the pelvis and calvees were found much distended with fluid : about six ounces was evacuated. From the condition of the kidney it was pretty certain that the large amount of pus did not come from this kidney and only clear fluid was evacuated on incision. The exploration failed to detect any pockets of pus. It was supposed that the wrong kidney had been cut down upon, and that the suppurative disease existed in the left. The wound was sutured and a large drain placed in it. The patient recovered well from the operation, but secreted no more urine, and died uræmic two days later.

Autopsy by Dr. W. G. Johnston twelve hours after death.-A very strong urinous ammoniacal odor noticed about the body, which was well nourished. In abdomen the kidneys did not project below the edge of the floating ribs. A rubber drainage tube in a wound in left lumbar region. Pelvis of left kidney moderately distended. Ureters on each side distended to about size of forefinger. Both kidneys showed marked hydronephrosis, with dilated pelves and calices, papillæ flattened. Renal substance atrophied and microscopically showed extensive cirrhotic changes, but was free from any appearance of acute inflammation, and the collecting tubules are not dilated. No calculi present. The pelves and ureters contained opaque purulentlooking fluid, but the mucosa nowhere eroded. Bladder contained about 10 oz. dark urine, was sacculated behind prostate gland, the middle lobe of which was greatly enlarged. The lateral lobes also slightly enlarged, but soft. Muscular coat of bladder greatly thickened, and trabeculæ prominent. The mucosa, on the contrary, very thin and atrophic, nowhere ulcerated, but showed deep slaty pigmentation.

DR. JOHNSTON thought the most interesting symptom was the presence of what appeared to be pus in the urine; that is to say, a dense cellular deposit not accompanied by much mucus. This was always laid down as a sign by which suppuration in the kidney can be distinguished from catarrh of the bladder, and in this case had materially influenced the diagnosis. Here, however, there was no true pus present in the sense of a product of suppuration accompanied by necrosis. The anomaly was probably explained by the condition of the bladder mucosa, which showed a marked atrophy, while in most cases of cystitis following prostatic obstruction he had found the bladder mucose greatly thickened and hypertrophic. This atrophic mucous membrane being unable to secrete any considerable amount of mucin, had made the appearance of the urinary deposit very misleading.

A Case of Diabetes.-DR. KENNEDY reported a case of diabetes in which a daily analysis of the urine had been made from Oct. 1886 for ten months. The patient was a female aged 28 years. The tables recorded quantity of urine, specific gravity, amount of sugar, urea, etc, including drink and food taken. At commencement of treatment the average daily amount of sugar was seven ounces. Codeia was first given with benefit, but lost its effect during second month, at which time the patient's condition became serious. On Dec. 1st, 1886, nitro-glycerine was given and continued with slight intermission for five months; its action was markedly beneficial, as the patient continued to improve. So far as Dr. Kennedy was aware, this was the first time the remedy had been used in this disease. Jambol was given for a short time as an additional remedy, but not continued. Iron, strychnine, etc., was given for the anæmia, etc. A strict diabetic diet was followed with saccharine as a sweetening agent. In July 1887 no medicine was given, as the patient was almost well, and during the last week of this month the condition was normal, with no sugar. At the present time the patient is perfectly well. During the ten months the patient passed 52 lbs. of sugar.

Discussion.—DR. RUTTAN said that this case deserved more than a passing notice. There was probably not another case

recorded in which such an accurate and thorough analysis of the urine had been made. A daily quantitative estimation of the most important constituents of a delicate patient's urine extending over a period of ten months should reveal something of interest. It is important to note the fact that whenever there was a sudden decrease in the percentage of sugar there was an increase in the acetone group of excreta, and this was accompanied with the most alarming symptoms. Whether there is any relation between quantities of sugar and acetylacetic acid excreted has not been determined, but there are few who believe that the symptoms of diabetes are due to the sugar or to the want of proper assimilation of carbohydrates. If these acetone products do not of themselves produce the coma and toxic symptoms of diabetes, their appearance during and proceeding coma is a remarkably common coincidence. In a recent case of sudden diabetic coma, the urine examined for Dr. Howard looked only a trifle pale, had no acetone odor when fresh, specific gravity 1020, only 2.7 per cent. of sugar, but was highly acid, acidity = to  $\frac{27}{100}$  of a grain of oxalic acid per ounce, and was loaded with acetylacetic acid. In another case, a life insurance candidate recently examined, no sugar reaction was obtained by Fehlings' solution, but the acetone reaction was marked ; specific gravity was normal. Two days later this patient's urine gave 3 per cent. of sugar and no acetone; specific gravity 1028. The specific gravity of diabetic urine is no index to the quantity of sugar, nor, indeed, if acetone be found, is it in relation to the total solids, as the acetone and alcohol resulting from the decomposition of acetylacetic ether would greatly lower the specific gravity. No work can be done of much clinical interest regarding acetonæmia or diacetonæmia till a more convenient method of estimating acetone be found than that recommended by Salkowski.

DR. MILLS wished to express his appreciation of these tables. Analyses of the urine so accurate, complete, and continued daily over so long a period were, he believed, without a parallel. It would be difficult to say what their value might be ten years hence, when the subject of diabetes was better understood. The physiological experiment of puncturing the floor of the fourth ventricle was unsatisfactory, and must necessarily be so if we were correct in crowding so many "centres" into this region. Vaso-motor effects follow it in time, but we are learning more and more that nutrition is less dependent on blood-pressure than has been supposed. From the results of the urinary analyses in this case and others, it was clear that in diabetes the nutritive processes were profoundly disturbed. Why should we suppose that sugar production was dependent on only one set of chemical reactions in the body when it is now known that sugar or allied bodies can be made in the laboratory by a variety of processes, even a variety of syntheses? May not diabetes originate in aberrant metabolism in different organs? It is impossible, at all events, to have for any length of time one colony of cells (organ) disordered without widespread evil in the economy. Should not diabetes be regarded as a complication of disorders starting either as a more or less general disturbance of the nutritive process ? Or, if we confine the term to that derangement of one organ which leads to excessive production of sugar, regard it as the starting point only instead of fixing the whole attention upon this and treating the disease as if it consisted wholly in derangement of one set of processes resulting in excess of sugar. It looks as if the chemists, physiologists and pathologists must unite in the investigation before the present partial and unsatisfactory views of the actual condition would give place to broader and truer ones.

DR. BULLER said that the color rings observed by the patient when looking at a light were probably due to a slight conjunctivitis, and were not characteristic of the disease.

Stated Meeting, February 17th, 1888.

JAS. PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

Extra-Uterine Fætation (Tubal); Rupture; Abdominal Section; Recovery.—DR. WM. GARDNER related the case, while DR. W. G. JOHNSTON exhibited the specimens— a degenerated fœtus and a chorionic villi—under the microscope. The patient, aged 29, was married last July. She had an early miscarriage

613

in October, for which she was attended by Dr. A. A. Browne of the city. After this she menstruated twice, the last time on the 2nd December last. Towards the end of the month she had morning sickness for a few days. During the early part of January a colored bloody vaginal discharge appeared, lasting nearly a fortnight. About the middle of January she was seized with violent pelvic and abdominal pain, with most alarming collapse, during which for many hours she was almost pulseless. From this in a few days she partially recovered, but soon there were recurrences of pain, faintness and symptoms of peritonitis. Her physicians, Drs. Browne and George Ross, recognizing the nature of the case, requested Dr. Gardner's opinion, and after examination he fully concurred in their diagnosis of ruptured extra-uterine fostation. The next day, the symptoms continuing alarming, it was decided to open the abdomen. The right fallopian tube was found expanded into a friable mass, in which the foetus was found imbedded in clots. On attempting to ligature this it tore away, so that it was not tied. The pelves was full of clots. These were scooped out, and then the cavity was washed out with a forcible stream of water from Lawson Tait's large blunt trocar carried to the dependent parts. A drainagetube was then inserted and left for eight days. For the first nine days the course of the case was perfectly favorable. Then evidences of cystitis appeared, and have continued to be rather severe and attended with some fever. There seems no reason to doubt that recovery will ultimately be complete and permanent. Dr. Gardner remarked that such a case as this well illustrates the triumphs of the modern extensions of abdominal surgery, and for this particular one we owe all that is worth knowing to Lawson Tait, whose remarkable results in a long series of such cases are now well known. The diagnosis will not always be easy, but given sufficiently alarming symptoms the abdomen must be opened and the condition found dealt with as may be necessary; and it is a great satisfaction to know that in the hands of competent surgeons the operation itself cannot be said to be a source of danger.

Discussion.-DR. JOHNSTON said that in examining the speci-

1

men sent, amongst a large amount of blood clot he had found a small, firm, fleshy mass  $1\frac{1}{4}$  inches long, which appeared to be a thick-walled sac torn open. In one spot a typical area of chorinic villi was seen. Within the sac, attached to one wall, was a small mass covered with a smooth membrane (amnion). This appeared to be a blighted and degenerated focus, of which only the eye spot and the intestines were distinctly recognizable.

A microscopic specimen of the villi was exhibited, showing this structure to be quite typical.

DR. GEO. Ross had been called to see the patient, and had found her after the attack almost pulseless, in extreme pain, temperature subnormal, and very pallid. He had strong suspicion of hemorrhage in the peritoneum and peritoneal inflammation. There was a reasonable expectation of the patient rallying from that attack, but the danger of recurrence was very great. Dr. Browne had early arrived at a diagnosis from the symptoms of tubal pregnancy. He heartily congratulated Dr. Gardner on the very successful result in this case, and said that as far as he knew it was the only case in Canada of early diagnosis of extra-uterine pregnancy and successful operation for the same by abdominal section.

DR. SHEPHERD asked if opinion was not now in favor of the belief that all intra-peritoneal pelvic hæmatocele were due to ruptured tubal pregnancy.

DR. GARDNER, in reply, stated that they were not always due to extra-uterine pregnancy. He had operated for a pelvic hæmatocele, which was part of a general condition. They may also be caused by rupture of varicose veins, etc. Mr. Lawson Tait treats all large hemorrhages in married females as if due to extra-uterine pregnancy. Electricity would not have availed here, and can only be of use while there is life in the fœtus.

Carcinoma of the Stomach and Liver.—DR. GEORGE Ross exhibited the stomach and a portion of the liver from the case, and related the following history: The patient, aged 55, had been under observation for four months, and had never had any gastric symptoms, but suffered from profuse diarrhœa and had a haggard appearance. Examination had shown a hard mass in

the left hypochondrium, which moved with the diaphragm; the liver was not enlarged. There was no pain after eating and no vomiting. The diarrhœa was controlled and the patient ate and drank well, but had continuous pain in the epigastrium. The hard nodule in the left hypochondrium rapidly increased in size. and it looked as if the left lobe of the liver was the seat of the tumor, but its origin was always doubtful. Later the patient developed albuminuria, and amyloid casts were found in the urine. The patient gradually sank. Dr. Johnston found at the autopsy a large fungating cancerous ulcer occupying an area nearly four inches in diameter on anterior surface of the lesser curvature of the stomach. Neither the pyloric nor cesophageal opening was obstructed. The base was deeply fissured, and had extended into the inferior surface of left lobe of liver to nearly one inch of the superior surface. No secondary deposit. Nature of growth scirrhus. Amyloid disease of glands in portal fissure, stomach and intestines marked, and the kidneys slight; spleen amyloid, but not enlarged.

Calculous Nephritis.—DR. JOHNSTON presented from Dr. Bower of Waddington, New York, a specimen of calculous nephritis where the entire renal substance was destroyed, the kidney consisting of a series of suppurating sacs, each containing a calculus of uric acid with phosphatic incrustation; a large calculus blocking orifice of the ureter. The other kidney had been greatly shrunken and disintegrated apparently from pyelitis, but contained no calculi. The symptoms were persistent pyuria, and towards the close uræmic coma.

Peritoneal Cancer.—DR. BOWER also exhibited a specimen of secondary carcinoma of the peritoneum. The growths, whose microscopical characters were those of encephaloid cancer, were all situated beneath the peritoneal coat of the intestines, soft and vascular, ranging in size from a pea to an egg. The seat of primary growth was uncertain.

Pharmacology of Arsenic.-DR. STEWART read a paper on this subject, which appeared in the April number of the JOURNAL.

Discussion.-DR. BELL could recall at least three post-mortems he had seen in the Montreal General Hospital while house レーマーン

surgeon, and in each case there were well marked inflammatory lesions. He was surprised to hear from Dr. Stewart that in none of his cases were there any inflammatory lesions.

DR. REED could remember one case of poisoning from Paris green in which there was no gastro-enteritis.

DR. McGANNON of Brockville referred to a case of arsenical poisoning where the poison, Paris green, had been found in the stools and vomit. Patient died in seven hours. No post mortem was allowed.

DR. SHEPHERD said that if Dr. Stewart's statement was accepted, viz., that arsenic did not kill by the violence of its inflammatory action, but by the lowered blood-pressure, then we must change our method of treatment of such cases. The point was a new one to him, as he thought that in all cases death was due to inflammatory action. He still had confidence in the use of arsenic in certain diseases of the skin, viz., psoriasis and bullous eruptions, and in these cases had used it extensively, but had never seen the erythema or staining produced ; this might be due to the difficulty of detecting erythema or staining when chrysophanic acid was employed.

### Selections.

The Therapeutics of Headache — As long as headache or "megrim" (hemicrania) was considered to be an affection of the sympathetic, its treatment was naturally a treatment of that nerve, principally by means of electro-therapeutics. However, the wished-for results that had been based on this theory were never realized. Erb denies the theory that megrim is a "neurosis of the sympathicus." Eulenburg, Moebius, and many others also are of a like opinion. Therapeutically salicylic acid, antipyrin, and other remedies have been used with success in attacks of headache, but at the best they only serve to ease the pain or lessen its intensity. A vast number of theories and "specifics" have been brought forward, the value of which has never been such as could be wished for.

Recently in France good results were reported to have fol-

lowed the practice of so-called "vibration," which was done either with the fingers of the physician or by means of a quickly vibrating instrument. Eulenburg was treating a lady for obesity and slight fatty degeneration of the heart by means of Oertel's The patient recovered, and at the same time was found method. to be cured from headache of the severest type, from which she had long been a sufferer. Generally it is, however, impossible to apply Oertel's method to all sufferers from headache. But there are other methods of treatment which may be practiced on any patient, viz., hydro-therapeutics and balneo-therapeutics. It has been well known for some time that a careful course of bathing often has a most beneficial effect on headaches. Dr. Pelizacus, in an article which appeared in the Deutsche Med. Zeitung, 1887, No. 66, strongly advocates the "water-cure in cases of megrim." In many cases he claims to have effected a complete cure in six to eight weeks. Any minute directions cannot be given, as the treatment is not one of any certain disease, but is merely a general treatment of the patient. In private practice the mode of procedure must be as simple as possible, so as to avoid the possibility of technical mistakes. As important as the bath itself is the treatment before and after the bath. Before bathing, and especially before taking a cool bath, the patient should carefully abstain from any fatiguing mental or physical work; should also never bathe when coming from a meal; must not be cold or chilly. After a warm bath rest is necessary, and after a cold one the patient should either walk until tired or, if that be impracticable, should practice gymnastics or other bodily movements. In one case mentioned by Dr. Pelizacus the treatment consisted of a daily half-bath of 23°R., which temperature was gradually reduced to 18°R. The patient remained in the bath from two to four minutes. In the afternoon a cool hip-bath was given, the temperature of which was from 20° to 25°R., which lasted from ten to fifteen minutes. After a few days the patient took a sponge bath in the mornings. This treatment was accompanied with nourishing food and plenty of out-door exercise. During the six weeks of treatment the patient had slight attacks of headache three times in the evening,

but easily slept them off and awoke in a few hours perfectly free from pain. After four weeks the morning sponge-bath was discontinued, and the patient was wrapped in wet sheets for an hour to an hour and a half, after which he was rubbed down with cold water. In six weeks a complete cure had been effected, and when the patient was last heard from, which was two years and a half after the treatment, there had still been no return of the headache.—*Therapeutic Gazette.* 

The Feeding of Sick Children.—Professor Jacobi of New York contributes to the Archives of Pediatrics, Vol. V, No. 1, a very exhaustive article. He points out that from the very first month of life a distinct diastatic effect is produced by the oral secretion, and that it increases every month. Moreover, this effect persists in the stomach for from half an hour to two hours; but it ceases altogether as soon as hydrochloric acid has begun to be secreted. Lactic or other organic acid alone is secreted with the pepsin in the stomach for the first half hour or more, and in debilitated subjects for the greater part or the whole of the digestive period. The diastatic power of the pancreas begins with the fourth week only and remains feeble up to the end of the first year.

To increase the secretion of pepsin and hydrochloric acid, which are deficient in anæmia, convalescence, and more particularly in fevers, large quantities of water are required, and peptones are not absorbed unless greatly diluted. Therefore, not only should infant's food be mixed plentifully with water, but water should be given alone, occasionally, more especially in the summer time. Water is indicated in diarrhœa, general inanition, perspiration, and feverish diseases ; where it is not retained, enemata should be employed. Further, where metamorphosis is slow, water increases the elimination of urea and carbonic acid ; when the urine is concentrated, water protects the kidneys from undue irritation ; it liquefies the mucus in laryngitis and bronchitis, and removes the dryness of the bowels in constipation.

On the other hand, in some forms of acute gastro-enteritis, where vomiting and diarrhœa are excessive, the only salvation lies in total abstinence for from four to ten hours. Sugar must be added to an infant's food because human milk contains a larger proportion than that of either cow or ass: but cane sugar is preferable to milk sugar, because it is much less rapidly converted into lactic acid.

Milk should never be given to well or sick without the addition of table salt. This, amongst other things, prevents the solid coagulation of milk. Fatty substances must be given with caution. The white specks in babies' motions are nearly always composed of fat and epithelium, and the administration of cream or cod-liver oil is very injurious to such cases.

The mixed milk of a dairy is preferable to that of one cow; it must be boiled before being used. Condensed milk is not uniform, and its use for that and other reasons is precarious. Goat's milk contains too much casein and fat, besides being otherwise incongruous. Skimmed milk, prepared in the usual slow way, is objectionable, because acid. No infant's food should contain more than one per cent. of casein. The best way to dilute cow's milk and at the same time render it less liable to coagulate in large lumps, is to add a decoction of a cerealbarley, when there is a tendency to diarrhœa; oatmeal, when the tendency is to constipation. The newly-born should have boiled milk (sugared and salted) mixed with four or fives times its quantity of whole-barley water; at the age of six months they should be of equal parts. Gum arabic and gelatine may be used in a similar manner. These are not only diluents, but, under the influence of hydrochloric acid, nutrients. Beef-tea, or, when there is diarrhœa, mutton broth, is advisable towards the end of the first year or much earlier than this in rickets, undue adiposity, and retarded teething. Peptonized beef-tea, such as Rudisch's, may be mixed with broth. Scraped beef is easily digested, but is open to the objection that tænia mediocanellata may be caused by it. The white of an egg beaten up with six ounces of water and a little salt is a good temporary expedient. Cow's milk is rendered more digestible for those infants or adults who cannot tolerate it in its ordinary condition by mixing half a teaspoonful of dilute hydrochloric acid with a pint of water and a quart of milk and then boiling it.

Alcohol is contra-indicated in meningitis, acute cardiac ailments, gastro-enteritis, peritonitis, and acute dysentery. It is stimulant, nutritive, antipyretic and antiseptic. The amount necessary to reduce the temperature is that comprised in about three ounces of whiskey or brandy. It must always be diluted either with water or with properly prepared milk. "Whoever is not afraid of giving six ounces of whiskey daily to a child when one or two fail, or ten or twelve when six fail, will soon convince himself of its power for good." Whiskey is, as a rule, preferable to other stimulants; the ether of wines neutralizes the antipyretic effect of the alcohol, and the fusel oil its stimulating action.—Medical Age.

Surgical Treatment of Acute Intestinal Obstruction.—An interesting discussion upon acute intestinal obstruction, with especial reference to its surgical treatment, took place at the annual meeting of the New York State Medical Society, held at Albany on the 8th of February, and it will not be unprofitable to review some of the opinions expressed.

The causes and symptoms of all the various forms were very carefully enumerated by Dr. Lewis A. Stimson, but the only diagnostic signs which could be pointed out were the history of previous peritonitis in obstruction by bands and adhesions; the history of previous attacks of biliary colic in obstruction by gall-stones; the slow development of stricture and neoplasms of the bowel and the occasional presence of a tumor in the abdomen in the latter cases ; and the subacute course, the passage of blood and mucus from the anus, with tenesmus, and the tumor to be felt in the abdomen and rectum in cases of intussusception. To these diagnostic signs must be added the observation of Dr. A. Jacobi, that in fæcal impaction the thermometer, placed in the rectum, would indicate a slight elevation of temperature, due to colitis, local peritonitis, and septic absorption-an elevation which was absent during the first two or three days of obstruction from other causes.

Dr. Stimson emphasized the fact that these distinctive symp-

toms were frequently absent, and that even when present they were not altogether reliable. For instance, acute obstruction is quite often the first marked sign of cancer or stricture, as was shown in one of his cases, in which there had been no symptoms from a very tight stricture of the transverse colon, until it was blocked by an apple-seed.

Spontaneous recovery was possible only in intussusception, a stricture blocked by some foreign body, and perhaps in cases of impacted gall-stone. Even in these cases spontaneous recovery was so rare that if the surgeon could exclude paralysis of the intestine and impacted fæces as the cause of the obstruction in any case, it was clearly his duty to attempt to relieve the patient by operative measures. But the difficulty lay precisely at this point, to exclude paralysis and impacted fæces at a sufficiently early period in the case. This sentiment was echoed by all the speakers. And a very practical statement of the dilemma was made by a gentleman who styled himself a country doctor, who was anxious to learn how to *know* when the cause of obstruction was such as to require operation, for the doctor in the country might have to call a surgeon twenty or even one hundred miles to see the patient, and could not rest satisfied with mere guessing.

Dr. A. G. Gerster thought that the failure to make an early diagnosis was often due to the fact that it was too much the habit of the physician to consider these cases when first seen as examples of ordinary colic, and to omit a thorough physical examination of the abdomen at that time, thus losing the favorable moment before tympanites rendered such an examination impossible.

It must be confessed, however, that none of those who took part in the discussion added anything to our powers of diagnosis. In fact, if anything marked the numerous cases related by Dr. William C. Wey, Dr. Simmons, and others, to prove that apparently desperate cases, suffering from symptoms of collapse and fæcal vomiting, may recover, it was the close resemblance between them and the fatal cases of intestinal obstruction. But the statement of Dr. Robert F. Weir is worthy of note. That valuable time was often lost in attempting to determine the exact cause and site of the obstruction, and that the point to be decided in these cases was not where and what the obstruction was, but whether there really was an acute obstruction of such a nature as to require relief by operation.

In regard to the recovery of desperate cases without operation, the same speaker made the pertinent remark that while such cases were known to all, what he desired to learn was the relative proportion which they bore to the desperate cases which terminated fatally, for in these same desperate cases the surgeon could probably save nearly thirty per cent., and it was important to discover what proportion could recover without his assistance, in order to decide upon the relative worth of medical and surgical treatment. If the number of cases treated by early operation were increased, the percentage of mortality would be very much reduced. Therefore, even if some cases which might have recovered spontaneously were submitted to operation, probably a larger proportion of all the cases of intestinal obstruction would be saved than with the present custom of delaying operation until there is no hope of spontaneous recovery.

Dr. Weir also remarked that with every case in which the surgeon performed laparotomy, and found a volvulus, a band, or some other cause of obstruction which could not be relieved in any other way, he felt encouraged to operate upon his next case without waiting until the symptoms were so marked and the patient in such a miserable condition as to place the diagnosis beyond all shadow of doubt. He knew of no case in which laparotomy had been performed, and fæcal impaction found as the sole cause of obstruction, and thought such an error unlikely to occur, in spite of the occasional cases in which laparotomy has been performed and no obstruction found. These two facts certainly warrant Dr. Weir's feeling that it was time for the physician to know of the growing confidence of the surgeon in the necessity for operative treatment in these cases, and to be led by the influence of that faith to bring the cases to the surgeon before every chance of success had been squandered by delay.

As Dr. A. Vander Veer remarked, the need of the hour is a

series of cases of successful, early operations, in order that the physicians may be encouraged to refer their cases of acute intestinal obstruction to the surgeon before it is too late.

The statement made by Dr. Weir, that if severe pain, vomiting, and constipation had lasted for forty-eight hours, it is necessary to operate at once, was so qualified that it could not be taken literally, but was evidently intended to stimulate the discussion, and to urge the necessity for a very early operation. A similar statement was made with a like purpose in view by Dr. William T. Bull, in reporting some cases of laparotomy at the February meeting of the Practitioners' Society of New York. It must also be remembered that Treves has already advised operation, in cases of intussusception, in the first forty-eight, or if possible in the first twenty-four hours after the development of marked symptoms. The statistics presented in this discussion by the writers show the necessity for an early operation, but after the first three days, for which the mortality was respectively 62 per cent., 70 per cent. and 73 per cent., there is no regular variation exhibited by the death-rate, probably because the symptoms in the cases which were postponed for a long time were not so severe as in the cases which were operated upon during the first two or three days. It is evidently impossible to place any exact time limit before which the operation must be performed in order to secure success, for the severity of the symptoms and the necessity for haste vary so much in different cases.

The indications laid down by Dr. Roswell Park as guides in the choice between laparotomy and enterostomy are not entirely free from objections, as was probably felt by Dr. Park himself, for he expressly stated that he thought the question was not yet ripe for decision. He favored laparotomy when the diagnosis of a cause which could be removed was certain, and when suppurative peritonitis was present, for the peritonitis could best be treated by laparotomy. But if the cause of obstruction was a malignant tumor of the intestine, if the tympanites was extreme, and if the cause of obstruction could not be determined, enterostomy was to be preferred. These are very nearly the rules propounded by Verneuil in the discussion upon intestinal obstruction in the Société de Chirurgie of Paris last Spring. Now, it is unanimously agreed that, with the exception of intussusception, stricture, and neoplasm of the intestine, the diagnosis of the cause of obstruction is impossible, consequently the adoption of such rules as those just quoted means a restriction of laparotomy to the exceptional cases.

These rules also leave out of consideration the chief factor to be regarded in making our decision—the condition of the patient at the time. In the introduction to his paper upon the technique of laparotomy for intestinal obstruction, Dr. Weir appears to have indicated the correct answer to this question. He says that, although laparotomy be scientifically the only proper method of treatment for acute intestinal obstruction, it often promptly terminates the life of the patient, because of the profound shock which accompanies this condition; but that enterostomy, although in itself only palliative, sometimes yields brilliant results, and at least does not add to the shock which is already present.

It is the belief of the writer that when the patients are in the state of exhaustion in which most of them now are when placed in the hands of the surgeon, enterostomy, which may even be performed without a general anæsthetic, is the only justifiable operation. I am confident, also, that we have no idea at present as to what the recent results of enterostomy for acute intestinal obstruction really are, for the statistics of Treves probably do not fairly present them. In the future these cases will be brought to the surgeon at an earlier period, and the better condition of the patient will justify the performance of laparotomy as frequently then as now, while the results obtained will be far better than at present, although it is not probable that the sanguine views of Greig Smith will be realized with a reduction of the mortality to " about fifteen per cent."

In the opinion of Dr. Weir, a very long incision should be made in performing laparotomy for intestinal obstruction. Although he would not consider it wise to blindly follow in every case the proposal of Kümmel, to make an incision from the ensiform cartilage to the pubes, he looked upon it as a distinct advance, because it recognized the necessity for making the

operation as brief as possible, while the large incision did not materially increase the dangers of the operation, and even facilitated the reduction of the distended intestine after the obstruction had been found and relieved. The reality of this gain of time is shown by Kümmel's statement that he had performed the operation in twenty minutes, whereas everyone knows that these operations generally require an hour, and not infrequently twice that time. The necessity for a short operation is well shown by the cases collected by the writer, which give a mortality of 55.7 per cent. in 190 cases in which the operative interference was limited to relieving the obstruction, without wounding the bowel; while it rose to 73.3 per cent., in 15 cases in which it was necessary to establish an artificial anus after the obstruction had been removed; and to 83.3 per cent. in 48 cases in which the gut had to be sutured. In all these cases the true danger lay in the length of the operation, not in the yielding of the sutures, for death was caused by sepsis in only 10 per cent. of the fatal cases.

Chloroform was strongly recommended by Dr. Weir as the anæsthetic most suitable for these cases—a recommendation all the more valuable, as it came from one who employs ether for all his general surgical work. Ether seemed to him to cause more shock than chloroform, and the subsequent bronchial irritation was very injurious. Dr. Gerster and others agreed in this opinion.

As to other methods of treatment, all united in condemning puncture of the gut, because there was great danger that the openings would fail to close, owing to the paralyzed condition of the wall of the bowel. Dr. Francis Bacon of New Haven related two cases of intussusception treated lately by him with success by inflation; but here, again, Dr. Park stated that in one case in which he had performed laparotomy he had found that previous attempts at reduction by inflation had caused a perforation of the gut, and this complication had resulted in the death of the patient.

Finally, the results of operative treatment were considered by the writer, who found a mortality of 68.4 per cent. in a collection of 339 cases. In the 232 fatal cases, the cause of death . - .-

was the poor condition of the patient in 103 cases, complications in 41, and failure to find or to relieve the obstruction in 30. The reports were incomplete in 13 cases. Of the remaining 45 cases, 13 died of shock, 3 from an unusually prolonged operation, 17 of sepsis which was probably due to the operation, and in 12 cases the cause of death could not be definitely ascertained.

The opinion of Dr. Jacobi, that laparotomy for intestinal obstruction should be classified with tracheotomy and herniotomy, and looked upon as one of the operations which every practitioner should be prepared to perform upon an emergency, when the assistance of an expert could not be procured, is certainly not to be accepted without important reservations. As Dr. Bacon remarked, the elaborate technique described by Dr. Weir gave the uninitiated some idea of the great difficulties to be overcome in these operations, and the complicated manœuvres which must be frequently resorted to. This alone should serve as a warning to those without experience in abdominal surgery, and certainly to those without any surgical training, not to undertake these very difficult operations rachly. While it is true that not a few of the successful operations have been performed by country physicians, with insufficient help, scanty towels, dirty water, and the most unpromising surroundings, no physician should neglect any precaution which tended to improve the chances of the patient, and he should at least allow him the advantage of the most skilful surgeon available. At the same time we may agree with Dr. Jacobi in so far that no physician should allow a patient to die, merely because he is lacking in courage to undertake an operation which he is really competent to perform.

As a substitute for the proposal so often made, that all cases threatened with acute intestinal obstruction should be handed over to the surgeon forthwith, a proposal which is probably too chimerical ever to be adopted, Dr. Weir made the very practical suggestion that in such cases a surgeon should be associated with the physician, a suggestion which deserves very serious consideration, for there is no malady where the double counsel is so necessary as in this perplexing and desperate condition.

On the whole the discussion was very encouraging; not that

it added much that was new to our store of facts, but because it showed the great interest felt in the subject, and with such eager observers some increase of knowledge may surely be expected before long. Certainly, the errors due to negligence and hesitation, altogether too frequent hitherto, even in cases in which there was no excuse for hesitation, will not occur in the future at least in the State of New York.—B. F. Curtis, Annals of Surgery, May, 1888.

Medicomania.-It consists in a mania for medical and surgical curiosities, and even operations, which is said to prevail in Parisian society. The scenes of the dead-house, the dissecting-room, and surgical theatre, all matters of purely professional interest, have-thanks, no doubt, to a diseased realism in the world of fiction-become the spectacle of the hour, the twin diversion with social small talk. It is a singular and not very worthy feature of the present day that various matters of the most serious character are apt to be discussed in general conversation in the lightest vein. In some circles religion is no longer sacred. It is hardly remarkable, therefore, that pain, sickness, sorrow, and death are to some who have not known them no more than means of pleasure, nostrums for the cure of an idler's leisure. We have better hope of mankind than to believe that any such morbid flippancy will long escape its due censure at the hands of all true oxponents of good taste and right feeling.-Lancet.

**Teaching Students to Think** —It is often a subject of regret to teachers in our medical schools that the work of the first two years is so soon forgotten; a man who has passed his preliminary examinations frequently so far forgets his scientific subjects in six months as to be unable, when in the hospital wards, to give a description of the cerebral supply to parts of the body, the convolutions of the brain, and the cranial nerves, or the minute anatomy of the kidney and liver; still, such students may have dissected diligently, attended lectures, and read at night, but they have not learnt to think or are not trained to think systematically and correctly. This defect is, we suspect, not entirely the fault of the students, but is also in part due to defects in teaching. When observing students under examination, both for university degrees and on the lower examinations, it has often been obvious that failure to pass the standard may depend.upon inaccurate methods of thinking and speaking—or upon no previous thinking—quite as much as from ignorance of the subject matter. Observing the objects of study in the dissecting-room does not necessarily teach thinking; to observe is to receive impressions, thinking may or may not follow observing. We have no intention of suggesting formal teaching of the laws of thought in the form of logic, though this useful science used to be one of the extra subjects in the Arts examination of the Apothecaries' Society. It does, however, seem needful to call attention to the importance of educating students to think as well as to observe facts; the scientific subjects and the teaching of medicine afford plenty of scope for both. The student is generally interested in the application of scientific knowledge to practice, and to show him such connections early in his career stimulates thinking. The constant application of anatomy, physiology, chemistry, comparative anatomy, and the principles and facts of vegetable biology, to what is seen in patients, produces an expansion of the subjects of thought, and engenders habits of correct thinking. To follow well made analogies, and to answer questions which exercise the imagination in a scientific manner, as in describing the minute conditions of circulation and the cause of nerve-currents in reflex actions, nessitates correct thinking. A student will often say that he hears a systolic mitral bruit, and is satisfied with his achievement, without understanding that the sound heard suggests an hypothesis which requires to be fully worked out before he can know the condition of the patient. A man well trained, not only in observation but also in rapid and correct thinking, will get through much more good work in practice than one less thoughtful. Thought, preceding action, guides him rapidly to make the necessary observations in the case before him, till thinking becomes automatic, and his opinions

are rapidly formed upon brief observations, and what is ill termed "clinical instinct." In making these remarks we by no means wish to depreciate the necessity of thorough and systematic examination of all the organs as a matter of primary necessity.—British Medical Journal.

**Curious Deformity in a Twin.**—Dr. Charles H. Bedford, in the *Brit. Med. Journal*, gives the following particulars of this case :—

"I was called by a midwife to a patient who had been delivered of a well-delivered, eight months' infant three-quarters of an hour before my arrival. The patient, a 7-para, was found to have considerable hydramnios, and a second child was found presenting in the R.O.P. position. I ruptured the membranes, turned and expelled the child by suprapubic pressure. The single, large, placental mass was expressed, and was found to have the cord of the first child attached centrally; that of the second was an 'insertio valamentosa.' This latter insertion, although not as a rule directly hindering the development of the foetus, may affect its life: (1) from the fact that the branches of the umbilical vessels may be pressed on during labor; or (2) from the circumstance that the membranes may rupture at a part over which one or more of these branches ramify, hence causing hemorrhage fatal to the foetus. This insertion is frequent in multiple pregnancies.

"It is well known that hydramnios and deformities of the foctus (and, curiously enough, often of the last born of the two) are frequently associated with twin pregnancies. In this case the second child was the subject of the following deformity: The right hand was articulated to the lower and outer surface of the radius, about one inch from its lower extremity, and the movement of this anomalous joint was good as regards flexion and extension, but lateral movements, as might be expected, were impossible. The radial and ulnar inferior extremities were pointed, and no articular surface was to be felt. The entire thumb was wanting, neither a rudiment of the first metacarpal nor any traces of the thenar eminence being present. No contracture or paralysis of the radial group of muscles was discovered. The opposite limb was normal, and the child was well nourished, but smaller than the first. It died on the third day after its birth, and, as I was at the time from home, neither the cause nor mode of death was ascertainable further than that ' it gradually sank.' The probable cause was asthenia produced by hemorrhage induced by either of the accidents incidental to the velamentous insertion of the cord. No necropsy was permitted, which I much regret, as the arrangement of tendons, vessels, and articulations would have completed the record of a most singular deformity."

Novel Method of Applying Taxis.—Mr. G. Jameson, Resident Surgeon, Medical College Hospital, Calculcutta, writes to the *British Medical Journal* as follows :—

"A few days ago a native presented himself at the dispensary of the hospital with a right large scrotal hernia, which had been down for some months. The man was placed on his back and the tumor manipulated. The coverings were fairly tense. Before attempting reduction I casually asked the patient if the tumor ever got smaller; he replied 'Yes,' and proceeded to give me a demonstration in taxis which I had not previously heard of, and which will probably be new to many readers of the *Journal*. Lifting up the tumor with his left hand, he placed his right thigh on his abdomen, then crossed it over to the left side, catching the tumor between the pubes and thigh, then applying pressure. The hernia disappeared with a gurgle and a snap before I had time to call the attention of the students to this novel procedure. The reduction was complete."

## CANADA

# Medical and Surgical Yournal.

#### MONTREAL, MAY, 1888.

#### DISINFECTION OF THE HANDS.

An unusually important essay upon this subject has been recently published by Fürbringer, an abstract of which appears in the Centralblatt für Gynakologie, No. 10, 1888. His investigations have been conducted with the object of determining the shortest possible time necessary for thorough disinfection of the hands, and the agent or method least injurious to them. As a test for the asepticism of the hands, Kümmell and Forster take the sterility of the space beneath the finger-nails. Fürbringer prefers the examination of the dirt beneath the nails (nagelschmutz) as being a more exact and certain test. His method is to remove with a sterilized instrument a particle of nagelschmutz after the hands have been disinfected, and imbed it in gelatine-culture : any colonies of bacteria which may develop are examined. Complete sterility was found only once in a large number of examinations after the ordinary method of disinfection, viz., some minutes washing and brushing with warm water and soap, and then rinsing with carbolic acid or sublimate solution. Incidentally he mentions an observation interesting and important, though at first sight somewhat startling, viz, that relatively good results were often obtained from nagelschmutz removed from hands previously immersed in highly septic matters (e.g., post-mortem fluids), whereas relatively bad results were more frequent when apparently the hands had not come specially in contact with septic matters. He found the washing and brushing with soap and warm water to be a valuable mechanical aid to asepticism, because thereby fatty secretions are

removed and the skin prepared for the adhesion of the antiseptic. By removing small particles of *nagelschmutz* and immersing them in solutions of carbolic acid or corrosive sublimate, he demonstrated the extreme difficulty of removing and disinfecting these matters. He attributes this difficulty to slowness of absorption, owing to the tiny bubbles of air which surround them and to the fatty matters they contain. After numerous experiments with different agents, he found *alcohol* (80 per cent.) to be the best means of removing fatty matters and disinfecting the hands without injuring them. He accordingly gives alcohol the foremost place in his "complete antiseptic method," which is as follows :—

1. Mechanical cleansing of the nails and careful thoroug'a washing of the hands with soap and warm water.

2. Brushing for one minute.

3. Washing in alcohol.

4. Rinsing for one minute in 3 per cent. carbolic or 1 to 2 per cent. sublimate solution.

5. Drying with a clean towel, and wiping carefully away any scrapings of the subungual space.

In sixteen examinations after the employment of this method, five colonies of bacteria were found once, six colonies once, and complete absence of colonies fourteen times. He determined the relative effect and importance of each agent by examining the culture results after the use of (1) soap and water only, (2) soap and alcohol, (3) soap, alcohol and sublimate, (4) soap and sublimate, (5) alcohol and sublimate.

The advantages he claims for his method are-

1. It gives an ideal and absolutely safe result.

2. It saves time (Kümmell's method takes 5 to 7 minutes and the result is uncertain).

3. It saves the hands.

4. Moderation in the use of sublimate.

#### KEPHIR AS AN INFANT FOOD.

In the current number of the Archives of Pediatrics, Dr. Longstreet Taylor of Cincinnati has an article on the value of kephir as a food in the wasting diseases of childhood. He has had good results in cases of infantile atrophy and in cases of chronic diarrhœa, where the only nourishment was kephir. In infants under a month old he orders it diluted with one-third water, and in the first stage of fermentation. Children of a few months old are, after a few days, able to take readily the kephir that has undergone the complete fermentation.

In kephir fermentation, the thick, hard curd of the milk gives place to fine flakes, which presents a much greater surface to the solvent action of the gastric juice. The presence of lactic acid tends to prevent putrefaction, as well as also to directly aid digestion.

#### CALOMEL AS A DIURETIC.

Stintzwig reports that he has tested the diuretic action of calomel in twenty-five cases of dropsy due to different causes. In cases of cardiac 'dropsy he almost invariably found it to be of marked benefit, while in dropsies of hepatic and renal origin its action as a diuretic was slight indeed. He gave three grains (0.2) three times daily, and where there was a tendency to its bringing on diarrhœa he added small quantities of opium (onetenth of a grain) to each dose. The increased diuresis usually began between the second and fourth day of the administration. He considers that the drug acts by stimulating the renal epi-If so, it is difficult to understand how it should fail in thelium. renal and hepatic dropsies and succeed in the cardiac dropsies. Agents that succeed in removing the latter form of dropsy act as far as we know at present through their influence on the blood pressure.

### THE ADMINISTRATION OF COD LIVER OIL.

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The well-recognized advantages of cod-liver oil over other fats in wasting diseases consists essentially in the comparative ease with which it is absorbed. Its fatty acids, without any influence of the pancreatic juice, become converted into soaps. Prof. Mering of Strassburg maintains that these advantages of codliver oil over other fats is due to the comparatively large amount of free fatty acids contained in it. He says also that the reason why the dark brown varieties are so much better than the clear is owing to the large amount of free acid contained in the former. It is not the experience of physicians in America to find a dark oil acting better than a light-colored one. Most of our dark oils are made so by the addition of a little iodine. This is done to supply the demand for the dark.

Prof. Mering recommends the mixture of olive oil and oleic acid (5 to 6 per cent.) as being in many ways a very efficient means of correcting the taste and at the same time aiding the digestion and absorption of cod-liver oil. The name Lipanin is given to this mixture with cod-liver oil.

#### McGILL UNIVERSITY.

ANNUAL CONVOCATION OF THE FACULTY OF MEDICINE.

The fifty-fifth annual convocation of the Faculty of Medicine of McGill University for the conferring of degrees took place in the William Molson Hall, on the 31st of March, which was filled with students and friends of old McGill, a great number of the audience being ladies.

At three o'clock precisely the members of Convocation took their places on the platform, Chancellor Ferrier occupying the centre, and around him were grouped Sir William Dawson, Deans Johnson, Howard and Bovey, of the Arts, Medical and Science faculties respectively; George Cornish, LL.D.; J. C. Murray, LL.D.; P. J. Darey, LL.D.; Principals MacVicar, Barbour and Douglas; Drs. James Stewart, George Wilkins, R. L. MacDonnell, Francis Shepherd, George Ross, T. Wesley Mills, Wm. Sutherland, R. F. Ruttan, George Fenwick, and W. G. Johnston; Professors Moyse, Coussirat, Lafleur and McLeod; Rev. F. M. Dewey, and several Governors.

Dr. Howard, Dean of the Medical Faculty, read the class and prize lists as follows :---

Of the 239 students in the Faculty, 111 are from Ontario, 58 from Quebec, 20 from New Brunswick, 23 from Nova Scotia, 11 from Prince Edward Island, 3 from Newfoundland, 8 from United States, 2 from Manitoba, and 1 each from British Columbia, West Indies and the Holy Land.

The following gentlemen, 49 in number, have passed their Primary Examination, which comprised the following subjects : Anatomy, Practical Anatomy, Chemistry, Practical Chemistry, Physiology, Histology and Botany :---

Addy, G. A. B ...... St. John, N.B. Low, D ...... Glen Buel, O. Aylen, W. W. .... Aylmer, Q. Main, C. G. ... Canterbury, N.B. Bissett, C. P., River Bourgeois, N.S. Murray, M. W.... Beechwood, O. Bowes, E. J..... Ottawa, O. Morris, O..... Pembroke, O. Broderick, E. J... Fredericton, N.B. McEwen, H ....... Carleton, O. Burritt, C, H., B.A..... Mitchell, O. McDonald, M. S.... Scotchtown, O. Clarke, J. W... Tatamagouche, N.S. McKee, G. L..... Coaticook, Q. Clune, P. J...... Warkworth, O. McKinnon, G.W. Sunnyside, P.E.I. Coleman, A. H. ..... Belleville, O. McKechnie, R. E. Winnipeg, Man. Corbin, F. G. ..... Bedford, N.S. McLellan, A. C. Indian Riv., P.E.I. Curtis, I.B..... Hartland, N.B. McManus, H. D. Fredericton, N.B. Evans, D. J......Montreal, Q. Morphy, A. G., B.A....London, O. Ellis, T. H. ...... Pembroke, O Noble, C. T. ..... Sutton, O. Esson, A. C..... Halifax, N.S. Robertson, W..... Chesterfield, O. Haldimand, A. W..... Montreal, Q. Ross, J..... Halifax, N.S. Hamilton, H. D...... Montreal, Q. Ross, H. R. ..... Quebec, Q. Haves. J., B.A......Nelson, N.B. Smith, W. D.....Plantagenet, O. Inksetter, W. E.....Copetown, O. Telfer, W. J.....Burgoyne, O. Irwin, W. T..... Pembroke, O. Thompson, F. E..... Quebec, Q. Jento, C. P. ..... Brockville, O. White, D. D. ..... Montreal, Q. Kerr, N ...... Holyrood, O. Wilson, W. A..... Derby, N B. Lang. M. W.....St. Mary's, O. Wheeler, C. L., B.A. Montreal, Q. Liddell, G. L..... Cornwall, O. Yorston, F. S..... Truro, N.B.

The following gentlemen, 53 in number, have fulfilled all the requirements to entitle them to the degree of M.D.C.M. from the University. In addition to the Primary subjects mentioned, they have passed a satisfactory examination, both written and oral, on the following subjects : Principles and Practice of Surgery, Theory and Practice of Medicine, Obstetrics and Diseases of Women and Children, Pharmacology and Therapeutics, Medical Jurisprudence, Pathology and Hygiene, and also Clinical Examinations in Medicine and Surgery conducted at the bedside in the hospital:— Bell, J. H., B.A....... Montreal, Q. Moffatt, R. D. West Winchester, Q. Berry, R. P..... Lindsay, O. Morrow, C..... Russell, O. Bradley, W. J., B.A.... Ottawa, O. McDonell, A. E. J., B.A. Morrisburg Cameron, J. J. ..... Lancaster, O. McDougall, D. S. ..... Russell, O. Castleman, A. L. East Williamsb'g. McFarlane, M. A.... Arnprior, O. Chalmers, W.W., B.A., Huntingdon. McKinnon, G.W., Sunnyside, P.E.I. Clouston, J. R..... Maple Hill, Q. McLennan, D..... Dunvegan, O. Conroy, C. P. ..... Martintown, O. McMartin, D. R... Martintown, O. Desmond, F. J.... Newcastle, N.B. Orr, A. E..... Cookshire, Q. Dewar, C. P..... Ottawa, O. Orr, J. E..... Mount Elgin, O. Ferguson, W. D. T. . Cumberland, O. Park, P. C..... Durham, O. Fritz, H. D., B.A....St. John, N.B. Pearman, H. V..... Halifax, N.S. Goodwin, W. W...Baie Verte, N.B. Potts, J. M..... Belleville, O. Haentschel, C. W.... Pembroke, O. Robertson, A. G..... Iroquois, O. Hewitt, J..... Quebec, Q. Stewart, A. D..... Arundel, Q. Hoare, C. W......Strathroy, O. Stewart, W. G., B.A. Arundel, Q. Haldimand, A. W.... Montreal, Q. Springle, J. A...... Montreal, Q. Hopkins, H. J......Cookshire, Q. Thompson, J. H....Gananoque, Q. Hubbard, O. H......Gilsam, N.H. Weagant, A. A......Hosaic, O. Kennedy, J. H..... Lindsay, O. Westley, R. A..... Lancaster, O. Kenney, F. L., B.A. St. John, N.B. Wetmore, F. H. Bloomfield, N.B. Kincaid, R. M....Clarenceville, Q. Woodruff, T. A. St. Catherines, O. Kirkpatrick, E. A., Kentville, N.S. Wylde, C. F., Halifax, N.S.

Baer, D. C...... Summerfield, Ill. Metcalfe, F. T..... Buffalo, N.Y. Lang, W. M......St. Mary's, O. Young, H. E., B.A.... Napanee, O.

The Holmes Gold Medal, for the best Examination in all the Branches comprised in the Medical Curriculum, is awarded to Neil D. Gunne of Seaforth. Ont.

The Prize for the best Examination in the Final Branches is awarded to William Grant Stewart of Arundel, Quebec.

The Prize for the best Examination in the Primary Branches is awarded to Robert Edward McKechnie of Winnipeg.

The Sutherland Gold Medal is awarded to Charles Peter Bissett of River Bourgeois, N.S.

The following gentlemen, arranged in order of merit, deserve honorable mention :

In the Primary Branches-C. P. Bissett, E. J. Bowes, E. G. Broderick, G. L. McKee, M. W. Murray, W. E. Inksetter, A. H. Coleman, T. H. Ellis, C. T. Noble, W. A. Wilson.

638 CANADA MEDICAL AND SURGICAL JOURNAL.

In the Final Branches-J. E. Orr, R. M. Kincaid, J. R. Springle, A. E. Orr, H. D. Fritz, H. V. Pearman, J. H. Thompson, H. E. Young, A. D. Stewart, D. McLennan, P. C. Park, O. H. Hubbard.

PROFESSOR'S PRIZES.

Botany-W. A. Farwell, Lennoxville, Q.

Anatomy-Demonstrator's Prizes : 2nd year, R. E. McKechnie; 1st year, E. A. Grafton.

Obstetrics-W. G. Stewart.

Pathology-N. D. Gunne.

The Registrar having administered the oath, the newly-made M.D.'s were capped by the Principal.

Dr. J. G. McCarthy read the valedictory. It was a model of advice, based on a large experience of the student world, and a fine tribute to the faithfulness of the professors, the thoroughness of the work, and the wisdom and skill of the physicians and surgeons. He spoke of the liberality of thought, the kindly feelings and sincere friendship among students, irrespective of nationality and creed, whilst they are striving for one end, to become worthy members of a great profession. He briefly sketched the history of McGill, and contrasted it at different stages of its development. Even the class of '88, the largest in its history, has seen it double its accommodotion, until now its diploma, from the standing of its staff and efficiency of the work, carries with it the recognition it deserves. Dealing with the lighter side of student life, he recounted fresh experiences, the piercing eye and determination of that janitor of janitors softening in the course of four years to a confidential chuckle, implying "You are now one of ourselves." He dwelt upon the personal weakness of the class for beards for the Spanish Cavilier, for a "speech or a song," and on behalf of the class he took a dignified leave in feeling terms of the professors and the University, and of the citizens, forgiving and forgetting the harsh criticisms occasionally passed on the medical student.

Dr. Geo. Wilkins, on behalf of the University, delivered the address to the students. (See page 577.)

Chancellor Ferrier then made a brief address, dwelling on the importance of the work of the Principal, who has devoted his life to the service of McGill, and the faithfulness of the staff during the forty-four years of the Chancellor's connection with the University.

Sir William Dawson expressed the feeling of the University, as a whole, towards the graduates. It was a credit to themselves and to Canada that they have sought out the best seat of learning, even where the work is hardest. He urged them to go on their way, with prayers and good wishes, and to be among those who go about doing good and making the world better. He announced that degrees in Law and Science would be conferred 28th April, and in Arts 30th April. The Arts convocation will be marked by two auspicious events—the grad ating of the first class of ladies and the presence of the Governor-General.

## Medical Items.

-The transactions of the International Medical Congress are promised for delivery early in May.

-A new medical college has been started in Detroit. It is called the Michigan College of Medicine and Surgery.

-Thomas Bryant, after a service of thirty-one years, has retired from being a surgeon to Guy's Hospital.

-The annual meeting of the American Medical Association will be held in Cincinnati on May 7th and following days.

-Dr. Edmond C. Loring, the well-known ophthalmologist, died suddenly in New York on Monday, April 23rd, aged 51 years:

-There was an attendance of 6,344 students at the University of Vienna during the past winter session. Of this number 3,123 were medical students.

-Papoma, a nutritious food prepared by that reliable firm, John Wyeth & Brother (Davis & Lawrence Co., Montreal), promises to fill an important place in the dietary of both children and adults where there is any gastro-intestinal disturbance. -We regret to learn of the death of Dr. J. E. Brouse of Brockville. Dr. Brouse was a well-known and much-esteemed practitioner of that city. He was a graduate of McGill University, 1861. He resided for some time in British Columbia, but for the past seventeen years has practised in Brockville.

-Dr. H. N. Vineberg (medallist, McGill, '78)) has been appointed Instructor in Gynæcology at the Polyclinic of New York. He also, we understand, acts as assistant to Prof. Jacobi in the children's department of the Vanderbilt clinic. We trust these appointments will lay the foundation of still further success in the American metropolis.

-The New York Legislature has recently passed a bill incorporating an institute for the teaching of what foolish people call "Christian Science." In other words, they have passed a bill for the perpetuation of a shallow sham. Those who know anything about this so-called "Christian Science" know that it is inimical to both Christianity and science.

-Dr. Cornelius Rea Agnew of New York is dead. For many years he has occupied a prominent position as an ophthalmologist. He has made many valuable contributions to medical literature, among which were "A Contribution to the Surgery of Divergent Squint," "Trephining the Cornea to Remove a Foreign Body," and "Canthoplasty as a Remedy in Certain Diseases of the Eye."

BEAUTIFUL CHEMICAL PREPARATION.—A snow-white mass of Caffeine, the active principle of coffee, (200 pounds and of great value,) is now on exhibition in the window of William R. Warner & Co., 1228 Market street. This beautiful crystallization represents ten tons of coffee, and is used as an ingredient in the preparation of Bromo Soda prescribed for the cure of headaches, migraene, nervousness, sea-sickness, &c.—Philadelphia Inquirer