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THE DRAINAGE TUBE IN ABDOMINAL SURGERY.

By J. F. W. Ross, M.D. Tor.,

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EVERY operator engaged in this field of work must pass through two or three stages of uncertainty. According to his teaching he will become an advocate of drainage, or oppose it. After he has obtained his training, as all operators should do in the practice of a preceptor, he begins to scan the histories of his cases, and to think and cogitate for himself.

After losing one or two cases in which he has used the drainage tube, he looks about him for the cause of death. Is it from infection that is already present in the abdominal cavity, or is it from infection that takes place through the drainage tube? He jots down mentally the old recognized rules adopted by many operators for the use of the drainage tube. He runs over them as follows:

In cases in which a large number of adhesions have been separated, and from which there is a danger of oozing subsequent to operation, use the drainage tube.

In cases in which the abdominal cavity has been flooded with pus, and it has been subsequently washed out, use the drainage tube

In cases in which some of the viscera have been perforated and closed by suture, and from which a subsequent leakage may take place, use the trainage tube.

Fourth. In cases in which the peritoneal cavity is infected before operation, use the drainage tube.

Fifth. In cases in which there has been prolonged exposure of the intestines and peritoneum, and in which there is likely to be considerable serious oozing after the wound is closed, use the drainage tube.

In all cases in which the abdominal cavity is washed out, use the drainage tube.

The operator now turns these over in his mind, and determines to stop the use of the drainage tube in many of the cases in which its use is supposed to be indicated. After the removal of a pus tube where the tube is enucleated from adhesions, or after the removal of an extra-uterine gestation where the peritoneal vessels are engorged, owing to the presence of pregnancy, and liable to ooze after the severance of adhesions, he closes the abdomen without drainage. A few cases may perhaps do well, but some cases will die, and he wonders if he could have saved them by using the drainage tube. The infection is late, the patient does well until the fifth or sixth day, and then shows signs of sapræmia, ushered in with abdominal tenderness, perhaps a chill, a rise of temperature and a rise of pulse. This happens when no drainage tube has been used to allow of the introduction of germs from the external air.

Why does it happen? Because more fluid collects than the peritoneum can deal with, and because the peritoneum has been, during the operative procedures, exposed to the air, been irritated and altered from the normal condition.

I am convinced that many of these cases that die without the use of the drainage tube would be saved by its use. This blood serum is readily infected, and the patient is in a safer condition when it is removed. It is a well-known fact that the rupture of an extra-uterine pregnancy, in which blood is poured out into the abdominal cavity, may produce a fatal peritonitis. In such cases there is no contamination of the cavity from without. Is this a septic peritonitis? If so, whence comes the sepsis? Does a non-septic peritonitis exist?

A great many arguments have been used against the use of the drainage tube. I have never seen it produce intestinal perforation. I have seen intestinal perforation follow the enucleation of a pus tube, but the opening was not produced by the drainage tube. If general peritoneal infection is present in any great degree, the drainage tube can do no harm, as it will not increase this infection, and it will not save life, as it cannot relieve the condition. Forty or fifty drainage tubes would be required for this latter purpose, and even then we would perhaps omit two or three more than should be used, and, as a consequence, the case would terminate fatally.

Having gone through the different stages of uncertainty mentioned in the first part of this article, I fail to see how it is possible to do away with drainage. I am satisfied that my results were better with drainage than without, and that the convalescence was shortened. It has one great objection, namely, the development of a hernia through the drainage tube track subsequent to recovery. Herniæ will occasionally follow abdominal operations in which no drainage tube has been used.

As a detector of hæmorrhage a drainage tube should not be left in situ for longer than a few hours. If required for other purposes, it should be used for two or three days, or for a longer period. When required for a longer period than forty-eight hours, I leave it in situ for five or six days, and replace it by a small rubber tube, to prevent the collection of infected material at the bottom of the drainage-tube track. In this way the convalescence is materially aided. Unless this is done, we are liable to permit a collection of fluid that may rapidly become purulent, and discharge up through the track or down through the vagina or rectum. If the sinus is allowed to heal slowly from the bottom, this does not occur.

To sound the feelings of different operators on this subject, I wrote to several and asked for their opinions. The following are a few of the answers received:

Dr. Joseph Eastman, of Indianapolis, says regarding drainage after suprapubic hysterectomy in a pamphlet sent me: "A drainage tube enables us to pour quantities of hot water into the peritoneal cavity to warm up the intestines, which are often beginning to be distended with gas from exposure to the air. We are assured that the water will be freely discharged though the large drainage tube. I believe it is almost criminal to publish to the world that drainage can be dispensed with in suprapubic hysterectomy. While it may be dispensed with when the abdomen is only open for a short time, someone else, with less experience, leaves the chilly bowels, following a tedious operation, without being warmed up by the washout. Serum is poured out into the peritoneal cavity, the chilled peritoneal surface is not able to absorb it, and serious consequences ensue. This, I believe, to be a vital point. Any operation which uses up the strength of an operator has a probability of having a similar effect upon the patient.

Dr. W. E. B. Davis uses the small glass tube with a rubber dam and sucker. He only uses iodoform gauze for drainage in cases in which an abscess is not attached to the abdominal wall in order to shut off the general cavity. He packs with gauze around the glass tube, and often removes it in twelve hours if the discharge is not serious. He follows the glass tube with a small rubber one, and closes the end of the rubber one with a pair of forceps. It is evacuated every two or three hours, and the forceps reapplied after it has been emptied. He considers that much depends upon the condition in which the surgeon leaves the field of operation as to whether he should drain or not.

Dr. McMurtry uses a small Keith glass tube and sucker, a hard uterine syringe. He is opposed to the use of capillary drains by iodoform gauze and other substances.

Dr. Kelly drains in cases of general purulent peritonitis; in pus cases in which a portion of a suppurating sac is left adherent to intestine or pelvic walls; in cases in which there is persistent oozing from numerous capillaries: in cases in which extensive lacerations of the intestine requires suture or resection. He usually allows the drain to remain forty-eight hours in simple cases. In intestinal wounds, or where debris or portions of a cyst wall are left behind, the drainage tube is left in from three to five days; and in purulent peritonitis and local collections of pus it is not removed for from four to ten days. In the latter class of cases the sac fills up from the abdomen, and free drainage is kept up by the gauze until the granulation process is complete. In purulent peritonitis gauze is packed in in long strips, and is gradually withdrawn, usually requiring from seven to ten days for its removal. The time for the removal of the gauze depends upon its appearance. If, upon slowly withdrawing it, no odor is detected, and the gauze is comparatively dry, it is at once removed. saturated with a grumous or purulent discharge it is only partially withdrawn.

Dr. Price considers the drainage tube of great value in abdominal and pelvic surgery. He uses the small glass tube in about all classes, except in cases of appendicitis, where he uses gauze and rubber tubes in all neglected and dirty cases. He considers the value of the drainage tube greater as his experience increases. He drains all the cases of pus in the pelvis. Following the removal of cystoma and fibroids with extensive and healthy adhesions he places drainage. He considers that the results in these cases are bad without drainage. If the toilet of the peritoneum has been carefully attended to, the convalescence is eminently more satisfactory in cases drained than in those not drained. Operators who value drainage and know how to use it rarely have septic cases. The authors of papers and books condemning the drainage tube have most to say about sepsis, bowel obstruction, and atheromatus blood vessels.

Dr. Robert T. Morris, of New York, says: "I do not use glass or rubber drainage tubes in the abdominal cavity for the reason that sloughing of the bowel is a well-known result, excepting in cases where the expert surgeon can give the tube his personal attention, and for the reason that the hydrostatic pressure of a column of fluid in the tube would prevent perfect removal of the fluid from the cavity. If a strip of gauze is used with the tube, the latter difficulty is avoided, of course; but I accomplish more with my wick, described in the Transactions of the American Medical Association for 1891. This wick acts by capillarity like the drain, but it is surrounded by gutta-percha tissue which prevents adherence of bowel. This wick adjusts itself to curves, and is so soft that it does not cause necrosis of bowel, so far as my experience goes. plain sterilized gauze instead of iodoform gauze, because the latter does not absorb in such a lively way as the former. After an operation I leave the wick in place until the abundant secretions of peritoneal fluid suddenly diminish in amount, usually at the end of about thirty hours, and then, if the case is a septic one, I carry a narrow single strip of gutta-percha tissue into the place from which the wick was removed. Peroxide of hydrogen in full strength I frequently inject once or twice daily in septic cases; and withdraw the gutta-percha strip an inch or so daily.

Dr. Montgomery says: "I have not been using the glass drainage tube for the last two or three years, using the iodoform gauze or Miculicz drain in place of it. In hospital work, in crowded wards where much attention has to be given to the patients by resident physicians, this, I think, is the preferable plan of procedure, as the other drain must necessarily be an open avenue for the entrance of septic material, and it is difficult to keep a case from becoming infected."

Dr. Thomas Savage, of Birmingham, thinks that death after abdominal operations is due more to something that is personal to the operator and the details of the operation than to any other cause. He uses the drainage tube more frequently than it is used by most men, so as to be on the safe side. He is satisfied that he has seen cases do badly that he thinks would have been saved if drainage had been practised. He has never found harm to be directly attributable to drainage. He used the ordinary glass tube, open at the bottom and with holes in the sides. times he uses a tube without any holes at the side, to avoid the annoyance of extra trouble involved by omentum becoming caught in these lateral openings. He never uses tubes closed at the bottom. For the evacuation of the tube he uses a simple syringe with a piece of rubber tubing attached. He does not use iodoform gauze for draining the abdominal cavity. The average time that he leaves the tube in place is forty-eight hours. In some cases where there has been pus, or where he leaves the tube for several days (for perhaps eight or ten days), he changes it every second day or so, and frequently leaves a piece of rubber tubing in for some time after the removal of the glass tube. With proper care he cannot think that the drainage tube can be responsible for fatalities, and is satisfied that often it is indispensable for success. He is well aware that a sinus frequently remains for a time as a consequence of its use, and that it tends to favor the development of herniæ. He finds that the perforations in the tubes are sources of annoyance, owing to the tendency the omentum has to become caught in them. He considers that the drainage tube may be removed too soon if the wound is already septic, and that this removal may take away the only chance the patient has of recovery, so that the want of the tube rather than its use may be a possible cause of death.

Dr. Manton, of Detroit, finds himself using the drainage tube more than ever; he feels safer by so doing. He uses the drainage tube recommended by Price, as he believes the ordinary Keith tube too large. leaves the tube in from one to four days, according to the character of the fluid removed. He has never seen any harm from leaving the tube in; has never had a perforation of the bowel, nor a fistulous opening remaining in the abdominal wall. For emptying the tube, he uses a two-ounce syringe and a piece of rubber tubing. He used Tait's bulb sucker for a time, but was never satisfied with the power of suction of the instrument. Lately he has used an ordinary uterine syringe. He believes in the frequent emptying of the tube during the first few hours. He is not a believer in gauze for the purpose of drainage, and would not trust gauze in the tube when there is hæmorrhage. He is satisfied he has never had a case of infection from leaving the tube in for several days; he does not believe that such a thing is possible if proper precautions are taken. covers the drainage tube with a sponge, and leaves the sucker in a carbolic lotion after each time that it is used. In some cases he uses an iodoform form gauze pad over the drainage tube. After the tube is removed he uses a pad of iodoform gauze, and tucks this over the opening at the lower angle of the wound. Occasionally he has seen the skin become irritated around the drainage-tube opening, but this has never resulted in any injury to the patient. In such cases a little peroxide of hydrogen is used, the surface is then dried, and salol applied liberally. He considers that the use of gauze in the drainage tube is an unnecessary fad.

Dr. Carstens, of Detroit, is opposed to the packing of the tube with iodoform gauze. He considers that this capillary drainage does not remove the septic germs, but removes only the watery part of the liquid exudate which contains few germs. The gauze also conceals hæmorrhage. He uses the drainage tube closed at the lower end, feeling that there is some danger of drawing the intestines up into the tube during the use of any suction apparatus. He has had cases die from sepsis even after the

use of a drainage tube. He believes it is clear that the drainage tube will not always prevent this, although he is satisfied that it never produces the sepsis. Serum and pus may collect in other parts of the abdomen and be unable to reach the drainage tube; in such cases the use of one drainage tube will not save the patient. The drainage tube will not prevent sepsis if the septic condition is inherent in the patient, or is due to the lack of aseptic surgery or nursing.

Dr. Mann, of Buffalo, considers that the drainage tube is essential in abdominal work, though he is opposed to its indiscriminate use. He uses a hard rubber syringe with a long nozzle for the purpose of emptying the tube. He cannot conceive how the iodoform gauze can be as effective as the sucker. He removes the tube as soon as the secretion becomes reduced in quantity and light in color. He has never seen any harm from taking it out too soon, though he thinks that once or twice he has left it in longer than it was needed. He feels satisfied that he has never seen infection from the drainage tube unless the infection was from the inside before the drainage tube was placed in cases in which pus escaped from an ovarian abscess or a pyosalpinx. In two cases he has seen trouble produced in this way, and the discharge from the drainage tube has been purulent almost from the first, although all the pyogenic membrane had been removed. He uses no antiseptic fluid in the tube, but the tube is kept in a sublimate solution, and the solution is carefully shaken off it before it is put into the tube. The tube he uses is the same as that used by Price. He uses catgut as a ligature instead of silk. He is satisfied that the iodoform gauze packing in the tube is not as good as the use of Even with the drainage tube unpacked, in one or two cases he found it disappointing as a detector of hæmorrhage. No autopsy was made on these cases, so that it is only surmise that they died from hæmorrhage.

Dr. McMurtry, in a later communication, says: "I am a great believer in drainage of the cul-de-sac of Douglas after hysterectomy. The dreamers have made a great error in trying to do away with drainage. If properly carried out it does no harm and saves many lives."

The objections to the drainage tube seem greater from a theoretical than from a practical standpoint. The theorist says that the germ-laden air is drawn down through the glass tube into the abdomen, and that this germ-laden air deposits its poison on the peritoneal surface. But the other side of the question must be looked at, namely, that in the with drawal of the fluid there is a current produced away from the body that will wash away many of these germs. If this fluid is allowed to collect, it may soon become, in spite of every precaution, septic; but if frequently removed it does not become septic. The most dangerous cases are those in which ascitic fluid is present at the time of operation.

The packing with gauze and with wick has been advocated by many. I have tried this method. It failed me in one case of hæmorrhage from adhesions. After the packing was removed several ounces of blood were removed by the sucker. The gauze, whether packed loosely or tightly, will not satisfactorily remove the fluid.

I use both the suction apparatus and gauze-packing, and in the intervals of drainage have the tube packed with sterilized gauze. The surrounding parts are soon shut off from a drainage tube; adhesions form, and though fluid may drain freely for the first few hours from other portions of the peritoneum it soon ceases to come, and, as a consequence, the drainage tube drains but a small area. If, however, an abnormal quantity of serum is poured out, these adhesions do not form until the quantity of fluid poured out is diminished.

I have removed blood from the drainage tube on the second or third day after operation, after the fluid has become serous. The bleeding was evidently due to the disturbance of adhesions subsequent to hard retching. Had no drainage tube been placed a blood clot would have formed and remained in the peritoneum, and would have endangered the life of the patient. Such blood clots are not so readily absorbed by the peritoneum as we are asked to believe. I have seen one such clot well organized on the surface, and yet with a collection of pus in its interior or from the breaking down of the centre of the clot.

I have seen a patient die with the drainage tube in situ, and a large collection of pus in another portion of the abdomen three or four inches away from the drainage tube. This collection of pus could not be attributed to the use of the drainage tube. It was similar to an isolated original stab culture in a cultivating medium.

When a surgeon undertakes a case he must expect criticism; he should not object to criticism so long as it is fair and open. No one feels the loss of a patient more than he does. If a patient dies and no drainage tube has been used, we are apt to think that a drainage tube would have saved the patient. If a patient dies and a drainage tube has been used, the death will be, by some, attributed to the use of the drainage tube. This but "points the old moral and adorns the old tale," "that doctors differ." Clinical results and pathological researches do not always agree. Theory and practice are sometimes widely separated from one another. Waves of thought, as unstable as many of our theories, sweep through the medical mind, and one year we are advocates of drainage, and the next year we condemn it. I have endeavored to obtain the views of other operators to compare them with my own. These may be of service to those who operate in the abdomen, and may be of some little interest to the general practitioner.

GYN. ECOLOGY AMONG THE INSANE.*

BY DR. HOBBS,
Physician to Asylum for the Insane,
London.

TERO-OVARIAN disease and its relations to insanity is a subject that has aroused much controversy and no small amount of bitterness in some sections of the great country south of us. Some State Boards of Control have thought fit in their wisdom to interfere in the scientific management of the insane, especially in the prosecution of operative procedure for the relief of pelvic disease in the same, and have characterized special work of this nature as "brutal and inhuman." It is very evident that those who took exception in such violent terms to a distinct advance made in the modern methods for the cure of insanity have been carried away by false theory and misplaced sympathy, and could not have had any practical experience of the undoubted benefit which, in the majority of instances, accrues from necessary surgical interference for the bettering of the condition of these "wards of the State."

Being still in the experimental stage in this matter, I am somewhat diffident about opening up a subject so extensive; but I desire to put on record the result obtained after a year's experience and observation in gynæcological work on the insane in London Asylum, and the conclusions reached as to the result of treatment of pelvic disease in insanity. That disease of those organs does produce mental alienation in many instances, I have not the slightest doubt. Exception may be taken to this opinion by putting forward the plea that derangement of other just as important organs rarely produces psychic disorders; then, why should changes in the genitalia cause this profound mental disturbance? reason, I believe, is that the brain is intimately connected with the uterus and its appendages through the great sympathetic system, and that disturbances of the latter are reflected upon the former in pathological, just as we know they are in physiological, conditions. To illustrate this, one has but to note the marked influence that puberty has upon the female mind. The girl in the transition stages to womanhood not only develops physically, but certain mental qualities hitherto well marked in her are very much altered, and from being a rollicking tom-boy she becomes retiring,

^{*} Read before the London Medical Society.

modest, sedate, and shy in manner, and takes on all the characteristics that differentiate the woman from the child. Then go a step further, and witness the changes concurrent with budding maternity. disturbances of various organs, the cheerful nature becoming morose, the despondency giving way to excitability, suspicion, and hate where hitherto love dwelt, the borderland of disordered reason is approached, and the Rubicon being crossed the invasion of the domain of insanity itself is often coincident with the puerperal state. If mental changes so marked, so profound, occur as a result of the physiological changes of gestation, would we not naturally expect in many pathological conditions of these organs some alteration in the mental attitude of the sex, especially when an inherent weakness of cerebral tissue is present in the individual? It is curious to note that the majority of insane women with pelvic lesions do not complain of anything that would lead you to suspect the presence of such disease. If the same local conditions existed in her sane sister, medical advice would soon be sought for their removal or amelioration. The perversion of the intellectual faculties with their omnipresent delusions obscure their judgment, and something totally foreign to the disease is alleged as the cause of the mental derangement. Regarding causation of insanity by pelvic diseases, Regis says (page 349): "That the majority of women suffering from organic disease of the uterus fall gradually, in fact, into depression, moroseness, and hysteria; they change in their characters and become irritable to excess, sometimes even passionate and violent, and occasionally they go a degree further, and pass fully into the domain of insanity." And on page 330 the same author remarks that "most uterine affections are capable of engendering mental disease by sympathy, and it does not appear that out of the whole number any one has any special influence more than others in this regard"; and on page 351, in speaking of psychic disorders following exactly the phases of the utero-ovarian symptoms, says: "These facts, which are very curious, establish firmly the relation, existing between the mental trouble and the uterine lesion and the subordination of the course of the former to the processes of the latter."

Tuke (vol. 2, page 1,244) writes that: "Uterine disorders are especially capable of determining by reflex action profound derangement of the cerebral functions."

Savage (page 71), 1884, in summing up a chapter on utero-ovarian insanity, says: "Insanity may be started either by serious uterine or ovarian disease, and the symptoms may have some direct relationship to the seat of the disease."

Clouston states, in speaking of uterine or amenorrhoeal insanity, "that the regular or normal performance of the usual functions of the uterus and

ovaries is of the highest importance to the mental soundness of the female." Such, then, is a consensus of opinion of four of the leading psychologists of the age.

The accidents of the puerperium are many and varied, and they bring in their wake distress, debility, and disease. Is it any wonder, then, that women with an inherent tendency to cerebral instability, or having highly strung nervous mechanisms passing through the stages of motherhood, having their return to health retarded or prevented by subinvolution, some tear of the via naturalis, some inflammatory exudation, should deteriorate mentally, and, their life becoming an intolerable burden to themselves and to their friends, that they should ultimately find their way into an asylum?

Many of these cases of mental alienation are, properly speaking, purely functional, and are dependent on a lowered vitality often induced by surgical disease. The removal of the causes and building up the physical health usually promotes recovery mentally, if the treatment is carried out before definite and permanent changes take place in the brain centres and irretrievable damage is done, which would certainly follow as a sequence to the long-continued assaults of pelvic sources of irritation. But even in cases in which no mental improvement is to be looked for as a result of operative interference with the utero-ovarian organs this is still justifiable, as being often essential to the patient's general well-being. It removes a source of irritation that constantly worries her, and which often leads up to maniacal attacks or fits of depression, and, except when death intervenes, it invariably improves the physical health, placing the unfortunate patient on a better basis, and making her existence at least tolerable, even if she remains a permanent resident in the institution in which she is con-Those patients do not suffer, as some would lead us to believe, during the operation. They are completely anæsthetized, and afterwards, when reparation is taking place, recovery is usually uneventful, not even a single degree of elevation of temperature occurring to vary convalescence. In some few cases after-treatment is hard to carry out, owing to unreasoning obstinacy, or an excitable temperament pertaining to the patient's mental state. Are, then, operative measures tending to relieve this class of patient to be stigmatized "brutal and inhuman"? Are methods so rational as outlined in this paper, for the improvement of either the physical or mental health, or both, of these unfortunates, to be condemned by theorists who perch themselves on a pinnacle and dictate as to what is right and what is wrong, that which is brutal and that which is not, who arrogate the right to say, "Thus far shalt thou go, and no farther," but forward their Rip-van-Winkle ideas, and allow misery, discomfort, and disease to hold their sway, and the light of reason to become hopelessly lost for the want of an outstretched hand and the timely removal of diseased tissues? Procrastination in these cases is deplorable. Every female admitted, whose history in any way points to defect or inalposition, new growths, or unhealthy local conditions of any kind, should be systematically and carefully examined, if necessary, under anæsthesia, and a correct diagnosis of the lesion made, and, if needed, treatment not only medical, but surgical, be commenced without delay. Then, after lapse of sufficient time, your patient showing no sign of return to mental health in spite of marked physical gain, you can, at least, comfort yourself with the reflection that you have given the patient her chance, and you can rest content with a clear conscience, and the knowledge of having, at least, done all that was possible in the case.

The analysis of the nineteen cases I now place before you present no new features gynæcologically. The operations performed follow a wellbeaten track. I wish, however, to draw your attention to the marked results which followed in these cases from work done upon the uterus itself. These vierine operations included curettage, divulsion, trachelorrhaphy, and amputation of cervix for condition of subinvolution, endometritis, and lacerated cystic and hypertrophied cervices. Of these there were nine, and, according to the mental state of the patients, they were classified as follows: Two cases of acute mania, two recurrent mania, one acute puerperal mania, and four of chronic mania. Physically everyone improved, the gain in weight in some being as much as twenty-five pounds. Out of the whole number, six, or sixty-six per cent., were discharged into the custody of their friends recovered. Two out of the remaining three have been discharged on probation, and recent letters state that they are doing well, and but one of the nine remains unimproved mentally, and is still a member of our resident population. Eight, then, out of the nine are now discharged, representing nearly eighty-nine per cent. of the uterine operations. Some will say that they would have recovered in an ordinary way. I say, no-not all, as you will observe that four of these were cases of chronic mania, one of fourteen years' standing, one of five years, one of three years, and one of two years. The one of the three years' standing is the one solitary remainder of this company.

Two operations were done for malposition of uterus by the method devised by Alexander of shortening the round ligaments. One was a case of puerperal mania of two years' standing, who subsequently improved very much physically, is now much less troublesome than formerly, and has become a useful worker. The other was a case of acute mania of seven months' standing; she improved mentally, but not enough physically when she was taken away by her friends, against our advice. She remained home three months, was brought back in a state of starvation, and died shortly afterwards of exhaustion of mania.

Vaginal hysterectomy for complete procidentia uteri was carried out in two patients. One was a case of chronic mania, passing into dementia of twenty-four years' standing. Was kept in bed latterly a good part of her time owing to the prolapsus. Although no mental improvement was expected in this case, the physical health was much benefited thereby.

The second was a case of acute mania of six months' duration, whose procidentia included a prolapse of the interior wall of the vagina, causing micturition to be painful and difficult. From the day of the operation she improved steadily in every way, and is once more attending to her houshold duties, being completely restored to health mentally.

Another case of acute senile mania, whose condition was rendered miserable by a complete procidentia uteri, being too old for an hysterectomy, the uterus was replaced by Freund's operation with buried silkwormgut sutures, and is still well retained. Her general health is much improved as a result of this simple, yet effective, procedure.

For removal of two ovarian cysts a different method was adopted in each patient; one by the abdominal incision, and the other per vaginam. The abdominal case progressed favorably up to the twelfth day, when double basic pneumonia set in, and carried off the patient in twenty-four hours. An epidemic of la grippe prevailed at the time, a number of asylum patients being laid up with it. Post mortem showed the stump contracted and the pedicle ligature completely encapsuled by lymph, and the pelvis free from fluid of any kind. There was also good union of the abdominal wound. She was a case of chronic mania of nine years' standing, and was sixty-four years old at the time of the operation.

The other case of ovarian cyst was removed by an opening in the culde-sac made through the vagina. She recovered rapidly without a solitary bad symptom. Her improvement, especially in bodily health, was very marked, and she is now well enough mentally to be at home. Her mental disease was that of acute mania.

Adherent tubes and ovaries, with accompanying menorrhagia and dysmenorrhæa, called for surgical interference in a patient who had chronic mania of three years' standing, and who at times was excited, violent, and destructive. The abdominal route was followed and recovery was uneventful. Although seven months have elapsed this patient's conduct has been exemplary, and her mental and bodily health much improved.

Coeliotomy and removal of a solid mesenteric tumor in another case of mania was followed by death from exhaustion on the fifth day, this patient being acutely maniacal for two or three days subsequent to the operation.

'The nineteenth and last on this list was a case of chronic melancholia,

with delusions of all kinds of imaginary disease in various organs. Being very uncomfortable from a large circle of hæmorrhoids, and having a torn perinæum with an accompanying rectocele, the operation of Allingham and Tait, respectively, received the symptoms locally, but were not followed by any change in her mental condition.

Before concluding this paper I desire to express my grateful appreciation of the kindness shown me by my superintendent, Dr. Bucke, in placing at my disposal every facility for carrying on the work, and my thanks are also due to Drs. Meek, Moore, Eccles, and Stevenson for the valuable assistance rendered me from time to time in these operations.

OPTICO-CILIARY NEUROTOMY, WITH PRESENTATION OF THE PATIENT.*

By G. HERBERT BURNHAM, M.D., F.R.C.S. EDIN., Oculist and Aurist to the General Hospital, TORONTO.

BOY named Charles Oxford, æt. 12, came under my care September. 1895, suffering from a severe injury to the right eye. While crossing the Atlantic he was pitched about in his berth, and his right eve came heavily in contact with the nail of his thumb. As a result there was a large penetrating wound of the cornea with prolapse of iris. I removed the entangled iris. The eye did very well for a time, but then began to show unfavorable signs, and, fearing sympathetic inflammation, I advised optico-ciliary neurotomy. The operation was performed as follows: I pulled the eyeball well down and out, and divided the conjunctiva over the internal rectus and also the tendon of that muscle. After freely dividing the subconjunctival tissue a strabismus hook was introduced so as to catch the optic nerve. I now passed in a pair of scissors and slid their points along the nerve towards the apex of the orbit, and divided the optic nerve far back. After this the eyeball was carefully turned about, that its posterior surface with the severed nerve attached, one inch in length, pointed out between the eyelids. The optic nerve was now divided close to the sclerotic, and also the ciliary nerves and adjacent tissue were carefully cut away, leaving the sclerotic quite bare. The eyeball was now returned to its proper position, and the divided tendon reunited. blood, which flows freely, and is sometimes very troublesome, must be allowed free exit; for if this be not attended it passes into the tissue of the orbit, and thus so fills the optical cavity that the eyeball is unable to be properly replaced, and hence the eyelids cannot cover the cornea, which, of course, may be the cause of great after trouble. However, there is, as a rule, difficulty in bringing the eyelids to meet, and often sustained pressure with the fingers has to be kept up for a short time before complete closure of the eyelids is brought about. Now a pad and bandage were applied. Upon this I at once placed an ice-bag, which was kept in

^{*} Read before the Toronto Medical Society, April 23, 1896.

position uninterruptedly; and I do so always as long as the patient can bear it, or till the eveball has resumed its proper position in the crbit, The eveball has slightly lessened in size, which in this case is due to the process of degeneration that was present in the eye at the time of operation; but otherwise there is no further alteration. There was total anæsthesia of the cornea after the operation, which is also the present condition, and is, of course, very satisfactory. The left eye has been quite quiet ever since the operation. In cases where sympathetic inflammation is feared all communication between the eyes should be as fully cut off as possible, which may be done in several ways, as enucleation, evisceration, and the operation now under notice. Optico-ciliary neurotomy preserves the eyeball, and in this way gives a much better effect than any artificial eye. This operation is not approved of by some oculists on account of the reaction, which is said by them to be excessive and even dangerous to life, and also that the certainty of cutting off communication with the other eve is not as great. However, I think with proper precautions and the proper performance of the operation that the results are satisfactory. The reaction in this case did not give much uneasiness to the patient, and was not severe.

CYCLING FOR WOMEN.

By P. E. DOOLITTLE, M.D.,

Ex-President Canadian Wheelman's Association; President Toronto Inter-Club Association.

VERILY this is the age of the New Woman. She shines forth in the pages of the comic illustrated journals, arrayed in coat and knickerbockers, smoking cigarettes, and attempting or doing everything that is unmanly in man. She has claimed an equal footing with her stronger brother in all the pursuits of life where brute force is not a requisite to success, and in the varied fields of pastime and labor which she has entered the question naturally arises in the medical mind, What will be the effect of these changes in her habits and occupation upon her peculiar physical condition as a woman? The scope of this article will simply allow of a consideration of the adaptability of cycling as a pastime, and as a therapeutic means, when indulged in by women.

Apart from her organs of generation, she stands on the same footing as does her brother in the enjoyment of this pastime, which is now recognized by even the most conservative of non-cycling members of the profession as being one of the best forms of out-of-door recreation and gymnastics. To a woman whose uterus and ovaries are in a normal state, and whose perinæum is intact, there has been no doubt as to the fitness of this form of exercise; but to her with the procidentia, the unstitched perinæum, the retroflexion, the anteflexion, the irritated ovary, the pus tube, the endometritis, the cervicitis, and the other ills which hover about the pelvis, like vultures about a battlefield, to prey upon the mental as well as the physical well-being of her sex, the question now becomes an important one. In nearly all these conditions we tell her she must not run the sewing-machine, nor hang curtains, nor ride on horseback, nor in any shaky conveyance, nor do anything that will tend to increase the vascular tension which already exists during her monthly siege; and in most of these instances we are right, too, as in the instance of the sewing-machine, where the action of the lower extremities causes an increased circulation, with an increased pressure on the veins of the pelvis, which latter, being stationary and free from activity, becomes a dumping ground for the excess of blood, which its organs, in turn, have not the energy to relieve themselves of.

When the ladies' "safety" made its first appearance in the days of the old cushion tire, I was consulted by letter by an old cycling friend, whose wife had taken the craze to ride a wheel, which her family physician told her under no circumstances should she do. The statements made were to the effect that some fifteen months previously she had a seven-months' miscarriage, with a laceration of the perinæum, followed by inflammation and falling of the womb, that she had been a semi-invalid ever since, some months better and some months worse, but always suffering greatly with her catamenia. I advised him strongly against her taking to the wheel, on the ground that anything that would be injured by horseback riding, or running the sewing-machine, would be affected similarly by the use of the bicycle. In the following autumn I met him in the city at the exhibition, when he hailed me with the information that he and his wife were taking a little cycling tour together. He informed me in the same breath that the bicycle had almost been the death of his wife, according to our predictions, in the first fortnight, as on one of their first runs she nearly ran off the bank into the canal; but her back aches were gone, and so were her headaches, as was also the occupation of the family physician, as far as she was concerned, and that condition has remained to the present day, judging from the answer I received from a medical man of the same place, of whom I asked the question, "Who was the medical attendant of the S-'s?" His answer was, "They have none, as neither Mr. nor Mrs. S- is ever sick." Now here was a case that was manifestly unsuited for horseback riding, or running the sewing-machine, or any of the category of the proscribed, and yet this patient regained perfect health, as far as subjective symptoms went, through taking up this fad, and her case is only one of very many similar ones I have since seen, many of whom have taken to the wheel on my recommendation. I hesitated at first in recommending such patients to use the bicycle, but on careful consideration I was forced to the conclusion that, with reasonable exercise of care, it was in many instances a curative process in those cases not attended with pus formation, and not in a condition of acute inflammation.

We all know the close affinity between the nervous system and the uterine organs; the melancholia and the depression following many of these conditions have often been the bugbear in our gynæcological practice. We have ordered the patient abroad, and she has travelled with a constant mental solicitude towards the uterus, constant thinking of which, like the ghost in "Hamlet," would not down. We have ordered her to take gentle walking exercise, and she has gone forth with every step a drag, as though each foot travelled were an extra drop in the dose of a bitter potion. On the bicycle, however, it is very different, as her whole mental faculties have been called into earnest but not fatiguing activity in

properly guiding and managing her steed, and one great essential in the curative properties of exercise, that of pleasant mental occupation, has been gained. The exertion of pedalling has set up a quickened heart's action, more blood has been pumped into the lungs, deeper breaths have been taken, more oxygen absorbed, and that not from the dust-laden and often germ-laden atmosphere of the gymnasium, but pure oxygen along shady lanes and pleasant drives of the country, with a bit of ozone blown up from the ocean, which has caused a better quality of health-restoring blood to course through the arteries so long carrying only a sluggish stream. But not only is the heart's action increased, but all the muscles of the body are more or less brought into activity. There is no reclining chair to support the spine, and leave the muscles lax; but, with head and body erect, and spinal and abdominal muscles in a state of active tension, the venous blood poured up from the rapidly moving extremities is quickly hurried past the pelvic region to be repurified in the lungs. the pelvic organs surrounded by active muscular tissue hurrying and carrying away venous engorgement. The arteries are pumping more and purer blood into them, and the venous circulation is so quickened that this blood is rapidly carried away. Hence a better tissue metamorphosis goes on, and the subinvoluted uterus regains its normal dimensions, the weakened ligaments regain their tone as they lose their excessive load, and the loss of the perineal floor becomes a matter of much less importance.

Another effect of cycling is the massage which the abdominal and pelvic organs receive while wheeling, still further hastening circulation, and removing the results of old standing inflammations and exudates. woman who formerly felt as though her insides were falling out when standing at a shop counter or being fitted by her dressmaker, with the increased muscular strength finds herself much better able to perform her ordinary duties in these regards. The question of injuries, perineal pressure, erotomania, and like subjects I will not stop to discuss, as the first is entirely a question of having a properly fitting saddle, and the second is the most unlikely thing to occur with a person taking brisk exercise, with the healthy mental occupation which comes to the wheelwoman when on a spin. As to the effect of extensive cycling on labor, the woman who has used her wheel up to the fifth or sixth month of gestation, and thereafter leads an active life, comes to her accouchement with strong heart's action and strong muscles, and, although there may be a more resisting perinæum, yet the muscular power to overcome that is so much greater that my experience has been that their labors are more satisfactory, and they much more quickly regain their normal strength. There are other questions that might properly come under the influence of cycling for women, as relating to her association with the opposite sex, and the

moral effect of brisk out-of-door exercise, creating, as it does, more muscular than erotic vigor. For we know that an indolent life is more fruitful of sexual evils than is a busy, vigorous one.

In cases of pus tubes, of acute inflammation, or immediately following inflammation with exudations, in fact, in any condition in which pelvic massage would be contraindicated, the use of the bicycle should be proscribed; but, given a case of subacute metritis, or subinvolution, to say nothing of the pseudo-hysterical cases of uterine origin, put the patient on a bicycle, give her healthy, cheerful companionship, plenty of country riding, and wholesome country fare, and you may lay aside your curette and your tampon, as they will not be wanted. Another condition in which great benefit has been derived to many of my patients is in the case of the nervous woman whose social duties and pleasures often turn night into day, and make her life a busier one than that of her poor shopgirl sister, who, under the nervous strain develops frequent headaches, with a tendency to insomnia, and too frequently learns to dose herself with the coal-tar products, to her injury. The bicycle takes her entirely out of her artificial atmosphere, fills her lungs to fullest expansion, and rapidly dissipates the unpleasant symptoms complained of. I am of the opinion that it will not be long until a foremost place in our armamentarium will be granted to the bicycle as a therapeutic means whose usefulness is second to no drug in the wide range of cases in which it is beneficial. The New Woman, indeed, is with us, and the bicycle is making her new in the best sense of that much-abused term; new, because she has a better physical development; new, because she has discovered a new means of recreation, that enables her to roam the countryside and come in touch with nature as have no other means before offered her; new, because she has been able to assimilate her tastes and her pleasures with the best of those of her brothers. Pedalling on in her health and her beauty, with her bright, ringing laugh, and her suffused but smiling countenance, we step aside as she whirls by, and salute herthe New Woman.

Selected Articles.

ASEPTIC SURGERY IN GERMANY.*

By Gabriel W. S. Farmer, M.A., M.B., M.Ch. Oxon.; F.R.C.S., Radcliffe Travelling Fellow; Demonstrator of, and Examiner in, Human Anatomy at the University of Oxford.

IN dealing with the subject of aseptic surgery in Germany, I wish to bring before you some of the methods now in vogue in the Continental surgical Kliniks which I have myself visited, and also to communicate in a short résumé the last researches of the late Dr. C. Schimmelbusch, of Berlin. . . . I shall first deal with general points in what may be termed the toilet of surgery, and afterwards give a short account of the most recent researches on the treatment of infected wounds.

The name of Lister stands very high in Germany-higher, I think, than in England—because his original ideas have been productive of a more general adoption of surgical cleanliness than in this country. It is no rare thing to see surgeons in England operating in old coats put aside for the purpose, comparable to the old coats which we keep in a dissecting In England I have seen surgeons using nail brushes which lie about anywhere, which are used for washing away pus or even fæces from one's hands, are supposed to render one's nails and fingers aseptic, are rarely, if ever, sterilized; and this is more than twenty years since that great pioneer, Lister, started a new era in the history of surgery. sees blankets brought straight from the bed of the patient to the operating table, remaining there throughout the operation, and several other things at which a German surgeon would smile and think: " A prophet is not without honor save in his own country." These surgical misdemeanors are all covered by the fact that the operator dips his hands into a solution of carbolic acid or perchloride of mercury for a variable time according to his patience or impatience; washes out the wound with some chemical which partially or entirely kills the tissues with which it comes in contact;

^{*} A paper read before the Oxford Medical Society.

applies a so-called antiseptic dressing, charmingly colored, which pleases the patient, is very expensive, and often full of infective organisms.

Lister's original methods, which aimed at the destruction of putrefactive organisms of air, and the prevention of their access to the wound, have, of course, fallen into entire disuse in Germany, as also in this coun-The steam kettle has done its work and must now be regarded as a relic of bygone days, holding a place similar to Stevenson's "Rocket" in the history of the locomotive. But though the original Listerism is dead, it has been productive of enormous results, and it is in Germany that these results have been chiefly worked out, and the antisepsis of earlier days converted into the asepsis of to-day. The cause of this is not far to seek. The science of pathological bacteriology is mainly the outcome of German work. The discovery of pyogenic and a great number of other pathogenic organisms, their classification, isolation, etc., is the achievement of Robert Koch and his pupils. The present aseptic principle of surgery is to prevent the access of pathogenic organisms, which reach the wound chiefly by contact, and not through the air, and is arrived at by processes which convert everything that comes into contact with the wound germ-free,

I will now pass on to a few main points on the surgical toilet as employed in the *Kliniks* of Berlin, under Bergmann, Sonnenburg, and the late v. Bardeleben; Strassburg, under Madelung; Bonn, under Trendelenburg, and more recently Schede; with regard to Professor Kocher's *Klinik* in Bern I shall also make a few references, as he differs somewhat from the others.

I. PREPARATION OF THE PATIENT.

Previous to operation the patient has generally two baths, one the day before, and the second upon the day of operation. Soap and water are used, and the operation area is shaved; for example, a leg or an arm is always shaved before amputation-not only the so-called hairy regions, but all regions that come within the area of operations are dealt with, which, I maintain, is a very important point. In the case of operations about the face, neck, or upper chest regions, the head is bandaged with aseptic gauze, brought straight from the steam sterilizer with which every hospital is equipped. The septic blanket does not, as a rule, play the interesting part upon the operating table as in this country. After leaving the bath, the patient is either placed in sterilized sheets upon a bed, or given a linen suit, resembling "pyjamas," which, though it at times looks dirty, is sterilized. The patient, after being placed on the table of operation, undergoes the final cleansing in public, so that every student can see it. The wound area is thoroughly scrubbed with soft soap and water, with the aid of a sterilized nail brush. In Strassburg, under Professor Madelung, wood shavings are used for this purpose, which are burned after each

operation. The soap and water are wiped off with sterilized dry towels, and the area is then washed with—first, alcohol; secondly, ether; and, lastly, with sublimate 1-1000. The skin is dried with towels, or, more frequently, sterilized gauze, and the sheets are removed and replaced by fresh ones.

II. PREPARATION OF SURGEON AND ASSISTANTS.

The coats are taken off in a room apart from the theatre, where a preliminary washing of hands and arms, cutting and cleansing of nails, etc., take place. Surgeon, with assistants, then put on long linen coats freshly sterilized, the sleeves of which reach to about midway between the elbow and shoulder. The final washing takes place in the theatre before the students.

- (a) About a minute with soap and water. Kocher always washes his hands and arms in a *constant stream* of water, and rinses his mouth out with a solution of carbolic acid. The hands are then dried with sterilized towels.
- (b) The hands and arms are then washed in 80 per cent. alcohol with sterilized gauze. In many of the Kliniks ether is insisted upon after the alcohol.
- (c) Lastly, the hands and arms are thoroughly scrubbed with sub-limate 1-2000.

The nail brushes are kept in special dishes, immersed in sublimate 1-1000, are boiled frequently, and, consequently, often removed.

Everyone engaged in the operation, including nurse and instrument superintendent, follows this rule. Any neglect would probably result in dismissal.

III. OPERATION ITSELF.

All instruments, having been boiled for five minutes in a dilute solution of soda, are either placed in one per cent. carbolate of soda, or, after immersion in cold sterilized water to hasten cooling, simply placed on a gauze tray. Marine sponges are seldom used, perfectly *dry* sterilized gauze being substituted. [Schede still uses marine sponges.]

From the beginning of the operation to the end no antiseptic touches the wound.

Hæmorrhage being stopped, the wound is dried with sterilized gauze and sutured.

The dressing used is simple dry gauze sterilized by steam.

Bandages are all sterilized before application, and, lastly, over all is placed a starch bandage to prevent shifting of the dressing.

In a considerable number of operation cases, the dressing consists of a few layers of iodoform gauze and collodion, no bandage being applied at all. I saw this frequently done in hernia cases by Kocher, and in laparotomies by Bergmann and Schede, with admirable results.

As a rule, the dressings are not touched for ten days to a fortnight.

Drainage is generally carried out by strips of sterilized iodoform gauze, india-rubber being seldom used. Kocher uses glass tubes which have been previously boiled. Infected wounds are never united immediately; they are plugged for some days with iodoform gauze, and when the discharge is found free from micro-organisms the healthy granulating surfaces are united by secondary suture. The use of secondary suture is greatly advocated in Germany, owing chiefly to Professor v. Bergmann. It resulted from his experience in the Russo-Turkish war.

Professor Madelung, of Strassburg, informed me that the use of the secondary suture would not only have cut short the course of illness of thousands of wounded in the great war of 1870-1871, but also saved many lives which were lost owing to exhaustion produced by the drain on the system in cases of large granulating wounds.

With regard to the preparation of sutures and ligatures, sterilization of catheters, etc., I shall say nothing, as time does not allow. Dr. Schimmelbusch, in his work on aseptic treatment, gives an admirable account of all the methods now in vogue.

I have been frequently asked the following question: "Are the results in Germany any better than ours with all their appliances and detail?" My answer is: "With regard to life and death statistics, the difference is practically nil; abroad they attempt operations which, I have no hesitation in saying, would be abandoned as hopeless in this country; but results must also be considered from the point of view of the rate of healing, and percentage of cases healing by primary intention. In this respect I positively maintain that, as far as I have seen, fewer wounds suppurate, and convalescence is shorter under the rigorous aseptic treatment abroad than with us."

I shall now pass on to the second part of my paper,* dealing with the disinfection of septic wounds. The washing out of infected wounds with antiseptic fluids has been extensively carried out by surgeons with the object of ridding the wound of infective organisms, these fluids acting either by washing away the germs or rendering them harmless. The supporters of energetic wound disinfection even at the present day in this country irrigate an operation wound with streams of carbolic acid or sublimate solution, thinking that in this way they destroy micro-organisms that may have found access to the wound. Exact proof of the assumed efficacy, however, is failing, and the germ-killing influence of antiseptic

^{*} Vide " Ueber Disinfection septisch inficirter Wanden," von Dr. C. Schimmelbusch. Aus der Kgl. Chirurgischen Universitats.—Klinik des Professor E. v. Bergmann, Berlin, 1295.

wound irrigation does not rest upon experimental evidence for its truth. The idea to disinfect wounds arose at a time when one knew nothing of an accurate nature concerning either the causes of infection or the means to destroy them; but the practice has still survived, although scientific knowledge presented itself, and doubt as to the possibility of complete wound disinfection became on the increase. For many wounds it is evident that an energetic use of carbolic or sublimate cannot effect any real disinfection. Wounds infected with spore-forming germs, or even with those of a resistance equal to tubercle bacilli, are not to be destroyed by 2 per cent. carbolic solution or 1-1000 sublimate, since anthrax and tetanus spores can live for weeks in 2 per cent. carbolic. Against the possibility of destroying even pus germs by such means grave doubt exists. The destruction of staphylococcus pyogenes aureus in bouillon does not take place in 1 per cent. sublimate under ten minutes-rather long for In wounds, again, these cocci present extra difficulties with regard to their destruction. They lie often unattackable in fat or blood, and afford conditions very unfavorable to the influence of antisepticsmuch more unfavorable than the human skin, for instance, which itself presents extreme difficulties.

Schimmelbusch made a large number of observations upon granulating wounds which contained the organism of green pus, viz., bacillus pyocyaneus. The skin surrounding the wound was thoroughly cleansed and disinfected. The wound itself was energetically washed with 2 per cent. carbolic, 1 per cent sublimate, or 1 per cent. silver nitrate, and then covered with an absolutely aseptic dressing. In spite of this, green coloration and smell appeared after a few days, a proof that bacillus pyocyaneus was not killed.

The question may be put, however, "Does not antiseptic irrigation modify the action and growth of micro-organisms?" A large number of possibilities can be theoretically constructed, viz., diminution in number of germs, decrease in virulence, accumulation of phagocytes, etc. We will see, however, how they stand experimental tests. Surgeons who, true to their conviction, carry out wound disinfection will not acknowledge very often any doubts as to the efficacy of wound irrigation. The favorable results of antiseptic wound treatment appear sufficient proof for the good of irrigation. It must not be forgotten, however, that antiseptic irrigation was introduced at the same time as other quite new methods of wound treatment, and it is not always easy to gauge the value of each individual factor of such a combination, and the most tenacious upholder of carbolic, sublimate, and other irrigations cannot close his eyes to the fact that surgeons who use no irrigation at all arrive at the same results as those who wash out their wounds.

Schimmelbusch and Schmidt have performed a series of experiments on nice, which, I think, have sufficient importance with regard to this subject to justify my bringing them before your notice.

EXPERIMENT I.

Four white mice were fixed in a cage and a superficial wound about 1 c.m.: long and 1.5 mm. broad was made upon their tails. Upon these wounds anthrax from an agar-culture was inoculated.

- Mouse A. Immediately after inoculation the wound was irrigated with 3 per cent. carbolic lotion. Death ensued after 24 hours P.M. Anthrax.
- Mouse B. Immediate irrigation with sublimate 1-1000. Death after 26 hours. P.M. Anthrax.
- Mouse C. Immediate irrigation with sublimate 1-1000. Death after 30 hours. P.M. Anthrax.
- Mouse D. No disinfection. Death after 36 hours. P.M. Anthrax.

EXPERIMENT II.

Three white mice, fixed and wounded as above, and inoculated with anthrax.

- A. The wound immediately after was rubbed with gauze soaked in 3 per cent. carbolic acid. Death after 36 hours. P.M. Anthrax.
- B. The wound was rubbed with sublimate 1-1000. Death after 36 hours. P.M. Anthrax.
- C. No disinfection. Death after 36 hours. P.M. Anthrax.

In these experiments the culture contained spores, and one might argue that naturally the carbolic and sublimate lotions used would be inefficient in checking the disease. It is noteworthy, however, that disinfection was not followed by any modification. In their next series of experiments, however, they obtained the same results. Spore-free anthrax was used, viz., spleen pulp taken from a mouse which had just died of anthrax. In all, thirty-seven mice were inoculated, and the wounds treated with different antiseptics of varying strengths. Creolin, iodoform, ether, chloride of zinc, had no effect. Pure carbolic, fuming nitric acid, absolute alcohol, were also tried with the same result. Therefore, after inoculating a white mouse with anthrax, one cannot save its life by antiseptic irrigation, either using weak antiseptic solutions or the most powerful.

Streptococci from purulent affections of man are, as a rule, pathogenic in rabbits, and often become very virulent when transmitted from rabbit to rabbit; so that a trace of blood or lymph from an animal which has just died from streptococcus sepsis inoculated upon a fresh wound will cause the death of a rabbit in a few days. In these cases of severe wound

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infection there is scarcely any inflammatory trouble at the seat of the wound; but streptococci are found in large quantities in the blood, especially that taken from the heart. With this highly infective streptococcus sepsis Schimmelbusch inoculated small surface wounds of rabbits' ears, and then tried to disinfect them; after which he covered the wounds with sterilized gauze and collodion.

EXPERIMENT III.

Six rabbits were inoculated with a trace of blood taken from an animal which had just died of streptococcus sepsis upon the inner surface of the right ear.

- A. Control animal. Death after 36 hours. Streptococci in blood.
- B. Control animal. Death after 60 hours. Streptococci in blood.
- C. Immediately after the inoculation the wound was irrigated with sublimate lotion 1-1000 for 10 minutes. Death after 48 hours. Streptococci in blood.
- D. The same procedure as in the case of C. Death after 80 hours. Streptococci in blood.
- E. Immediately after the operation the wound was washed out with 5 per cent. carbolic acid solution. Death after 20 hours. Streptococci in blood.
- F. The same procedure as in the case of E. Death after 60 hours. Streptococci in blood.

A further series of experiments of the same kind were performed, which were followed by similar results.

Now I think these researches of great value, for they tend to show that antiseptics have no power of attacking the micro-organisms in wounds. These micro-organisms are rapidly absorbed and removed from the surface of the wound to the deeper strata. As early as 1873, the French observer, M. Colin,* performed a series of experiments on rabbits with anthrax to investigate the rate of absorption of "putrefactive matter," and more recently Nissen,† in Bramann's Klinik, carried out similar researches on a more scientific plan. Based upon the same plan as the experiments of these observers, Schimmelbusch made a series of observations as to the rapidity with which micro-organisms are absorbed from a surface wound, and obtained some striking results.

In the wars of 1866 and 1870-1 Volkmann came to the conclusion that the practice of probing wounds on the battlefield was highly to be deprecated, and that instead an "occlusive bandage" should be immediately

^{*&}quot; Nouvelles reserches sur l'action des matières putride et sur le septicéime." Bulletin de l'academie medicine, 1873.

[†] Deutche Medicinische Wochenschrift, 1891.

applied. Cases so dealt with invariably stood a better chance than those that had been meddled with before reaching the field hospital. Bergmann, in the Russo-Turkish war, took fifteen of the worst cases of gunshot wounds of the knee, in which not only the knee-joint was opened, but in which there was also splintering of bones, and treated them as follows:

The surrounding skin was thoroughly cleansed, and an aseptic dressing applied. The limb was then kept at rest by means of a plaster of Paris bandage—no syringing or probing was resorted to—fourteen out of the fifteen made a rapid recovery.

At the present day every soldier in Germany is equipped with a sterilized dressing, sealed up in an impervious envelope. In the case of this dressing, I should mention that it is impregnated with sublimate, its preparation, however, being under Government supervision.

Time does not allow me to bring forward certain points with regard to treatment of abscess, and, therefore, I shall conclude by pointing out the essons I have learnt from the continental methods of asepsis:

- I. If one attempts to be anti- or aseptic, one must observe every small detail in the handling of wounds—cleansing one's hands and the skin of the patient is useless if a ligature is soiled in being passed from the hands of a nurse to the surgeon. In this country, where blankets are so frequently placed on operating tables, I have several times seen surgeons, in taking a ligature or suture from the nurse, trail the same over the blanket—of course, unintentionally, and without seeing.
- 2. In boiling water we have a perfect means for rendering instruments, ligatures, and dressings germ free.
- 3. That antiseptics cannot claim all that has been attributed to them. Dressings impregnated with chemicals, left lying about in cupboards, are frequently rich in germs. Their preparation often entails soiling, and to be quite trustworthy must be made under strictest supervision, and then placed in some impermeable envelope. Under such conditions these impregnated dressings are useful in military surgery. In hospital surgery they ought to hold a very minor position to the simple steam-sterilized dressings, which are absolutely unirritating.
- 4. Lastly, that the value of washing out every wound with some lotion has been overestimated. It is very rarely resorted to in Germany, where results with regard to primary healing are certainly better than I have seen elsewhere.—The Medical Magazine.

Clinical Notes.

ROTO-LATERAL CURVATURE OF SPINE.—INFANTILE PARALYSIS.—DOUBLE DISLOCATION OF PATELLA.

By B. E. McKenzie, B.A., M.D.,

THE following three cases are probably worthy of separate record as clinical cases.

CASE I. ROTO-LATERAL CURVATURE OF SPINE.

Sept. 4, 1895. L. R., female, 14 years old. Family health good. She has always been a fairly healthy girl. Some years ago it was noticed that the one hip seemed to project farther than the other, and that the shoulder blades were not symmetrical. The exact time when these conditions were first noticed is uncertain. Has had no prolonged illness. The photographs shown (Fig. 1) show at this time (Sept. 4) the amount of deformity. The cut, which shows the patient in a stooping position, brings out well the angular deformity of the ribs, and is an indication of the amount of rotation of the vertebræ. The cuts shown (Fig. 2) are taken three months subsequently, and show better than any word description could do the amount of improvement which had occurred in three months. ment adopted was that which I have described in previous articles, namely, by means of suspension and the lateral girdle to force the spine and ribs into an improved position, and the daily systematic development of the trunk and its muscles, and the contained viscera. Such a case as this one here described ought to continue treatment similar to this for at least a period of six months. Those who have had any considerable experience in the treatment of deformities of the trunk will recognize the difficulties there are in the way of rectification, and will be exceedingly guarded as to giving a prognosis which implies a cure. In case of lateral curvature where there is much rotation, I have never allowed myself to expect anything that could be considered an approach to complete rectification of the deformity. Within the last two years, however, I have seen at least four cases where there was a very close approximation to a complete restoration

of the normal attitude. Although this case shown is one of very marked deformity and a great amount of rotation, yet, judging from the degree of correction attained in three months' treatment, one might reasonably expect that had the treatment been continued we would have been able to accomplish something approaching very closely to the normal condition of the trunk. In these cases it is important to add that the girl gave a very intelligent and hearty co-operation, and proved in this important respect a very docile patient.

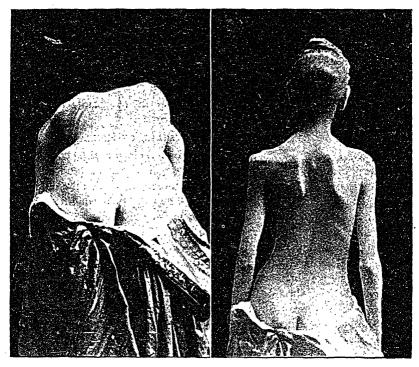


Fig. 1.

CASE 2. INFANTILE PARALYSIS.

Jan. 24, 1896. D. T., male, 11 years oid, is a well-nourished, bright, active boy, whom I treated about four years ago for right talipes equino varus. The result obtained is an excellent one. Although the leg has developed satisfactorily and presents a moderately good calf, yet it is considerably smaller than the left, and is one-half inch shorter. In spite of this inequality he walked almost without a perceptible limp, and was an active boy and fleet runner.

In September last he went away from home with his mother for a visit.

On a Sunday he complained of headache. On Monday he had headache and vomiting. Was kept in bed during Tuesday and Wednesday, and on Thursday, when he returned home, had to be carried from the carriage to the house, as he was unable to use the lower extremities. He says himself that he could move the thighs, but could not move parts below kneeswas confined to bed for about two mouths.

In November he began to walk, and has continued to improve until the present. He is unable to extend the right leg at the knee. There is very little power of flexion at the same joint. The disability in the left

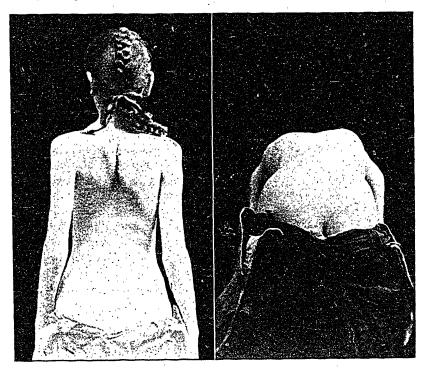


FIG. 2.

leg is not so marked in either extension or flexion. The power of movement is reduced perhaps to one-half at the hip-joint on both sides, the right being more disabled than the left. In walking he has a limp, dropping perceptibly to the left side, and simulating somewhat a case of hip disease. His general attitude, however, appears much more like that of Pott's disease. Careful examination easily excludes the presence of these affections. In standing it is noticed that the abdominal contents protrude and hang down loosely at the lower portion of the abdomen. When lying

down upon his back he is unable to rise without assisting himself much by the arms. He cannot get up a step of ordinary height with the right foot. In many of his movements during examination he resembles a case of pseudo-hypertrophic paralysis, so much so, in fact, that in consultation that diagnosis was suggested. At no time has the presence of pain been characteristic of his condition. When trying to rise from a recumbent position upon the back, the muscles of the abdomen are found incapable of contraction. Considering the history of the case, its continued improvement and the electrical responses, there is no doubt that the case is one of anterior polio-myelitis.

CASE 3. DOUBLE DISLOCATION OF PATELLA.

November, 1895. M. H., female, 14 years old, is a large, well-nourished girl, who walks with an exceedingly awkward gait and has an idiotic expression. Both father and mother are dead, and it is impossible to get a reliable family or personal history. It is learned, however, that she has two sisters and a brother in the Asylum for Idiots at Orillia. The imperfection of walking cannot readily be assigned to any definite cause as she is watched moving about. Upon flexion at the knee joints it is noticed that both patellæ become dislocated outward, the right considerably more than the left. It passes outward to lie upon the lower part of the outer condyle of the femur, while the left patella occupies a position on the anterior and outer aspect. This movement does not appear to be painful, and both patella are readily replaced when the leg is again extended. proposed to remove a section from the fibrous structures and capsule at the inner side of the joint, for the purpose of holding the patella from becoming dislocated outward. The majority of the staff at the Hospital for Sick Children were opposed to the operation, and nothing has been done except that she is at present under treatment by electricity and massage.

Progress of Medicine.

MEDICINE

IN CHARGE OF

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AND

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GONORRHEAL RHEUMATISM IN INFANCY.

Hanshalter (Arch. Cliniques de Bordeaux, No. 11, 1895, p. 405) reports a case in an infant 28 days old. The child was suffering from purulent ophthalmia, and twenty-two days after its appearance swelling began in the left wrist joint, quickly followed by affection of the right knee joint. sero-pus withdrawn from the latter joint was found on examination to contain the gonococcus. The articulations returned to their normal state in two days, the ocular affection having meanwhile destroyed the corneæ in both eyes. The writer points out that these cases are decidedly rare, only twenty-seven having been hitherto published. In the newborn it almost always follows on purulent ophthalmia, as in the case recounted. In older children it often arises similarly, but also from a vulvo-vaginitis or urethritis, which is rare in the newborn. Very occasionally it arises from a gonorrhœal stomatitis contracted at birth. The affection is usually mild, giving rise to inconspicuous symptoms, and perfectly recovered from. supervenes, in newborn infants, within three weeks of the commencement of the purulent ophthalmia, and affects only one, or at most two or three, There does not appear to be any relation between the intensity of the eye-affection and the occurrence of arthritis. One case only of death is reported, from meningitis following a concomitant offtis media. Usually the general state is good, and pyrexia absent.

PRIMARY SARCOMA OF THE PLEURA.

It is a serious matter to announce the diagnosis of this disease, and yet absolute certainty is difficult to acquire. Guinea pigs inoculated with

the fluid withdrawn from the pleura will determine whether it is a case of tuberculous pleurisy, which is often terminated by recovery. Another point of assistance in diagnosis is the absence of febrile conditions; sometimes there is hypothermia. The almost immediate reproduction of the effusion after the puncture is another characteristic symptom, as also the compression and the absence of marked modifications after puncture. As a consequence of the pressure in the thorax, some cases present a turgescence of the veins of the neck, arm, and face, or an ædematous appearance of that half of the thorax. Others experience a difficulty in swallowing, and others show a dilatation of the pupil on that side. The pain is also characteristic, diffused throughout the thorax, with increase on local pressure, and extending into the shoulder and arm. It is, besides, more or less continuous. Palpation is also a most important guide in diagnosing, as several cases on record presented marked protuberances in the thoracic walls. The fluid withdrawn varies so much in different cases that it is not so much of an assistance as might be expected. The above points are culled from a long and analytic treatise on this subject in the Progrès Médical. January 4 and 18.

A CARDIAC CURIOSITY.

The case about to be described is, perhaps, more interesting as a curiosity than as a contribution to medical literature, but the fact that a murmur of such intensity should occur in a subject whose actual cardiac disease causes so few inconvenient symptoms is sufficient excuse for the few notes here appended. The patient, a bright and intelligent school girl, aged fifteen years, belongs to a family many members of which suffer either from phthisis or cardiac disease. Her personal history is good. She has never suffered from any serious ailment, and has always enjoyed fair health. The cardiac mischief causes no other symptom than the fact that she easily gets "out of breath." The heart is not enlarged or dilated, there is a good first sound, followed immediately by a murmur and a low second sound. The murmur is mitral, and this is the interesting feature of the case, for it can be heard when the patient is fully dressed at a distance of twelve feet or more. It can also be heard when, with the chest exposed, she is placed three feet away from a closed door, and the listener is at the same distance on the other side of the hall. As might be expected, the murmur varies somewhat in intensity from day to day, but it is only very rarely that it cannot be heard a foot away from the chest without the stethoscope. We believe this to be unique. - J. Reginald Fuller, M.B., B.S. Durh., M.R.C.S. Eng., and F. R. Gibbs, M.R.C.S. Eng., L.R.C.P. Lond., in Brit. Med. Journ.

THERAPEUTICS

IN CHARGE OF

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FOR DANDRUFF.

A medical practitioner, himself subject to dandruff, writes in the Louisville Medical Monthly that, having tried many means for relief, among which were various alcoholic solutions of castor oil, and washing the scalp with solutions of borax and carbonate of potash (which latter, although effectual for the relief of dandruff, seemed to impair the vitality of the hair and cause it to become very sensibly thinner), he finally tried a preparation of an ounce of the flour of sulphur in a quart of water as follows, with the happiest result. The sulphur was repeatedly agitated in the water during intervals of a few hours, and the clear liquid then poured off, with which the head was saturated every morning. In a few weeks every trace of dandruff had disappeared, and the hair became soft and glossy. After discontinuing the treatment for eighteen months there has been no return of the disease.

RATIONAL TREATMENT OF ABORTION.

Dr. Benicke has just published a comprehensive paper on this subject based on a large number of personal observations. He claims very good results from the treatment, which is strictly in accordance with modern views of asepsis. He believes in being "meddlesome" at the proper time. We append a résumé of his conclusions taken from the Allgemeine medicinische Central Zeitung, December 21, 1895:

(1) In cases of severe hamorrhage and febrile disturbances occurring in the first two months, the entire contents of the uterus should be removed. The finger or the curette, or both, may be used for this purpose. The calibre of the cervix will determine the choice of method.

- (2) In the third month, if the os uteri is not patent, tampons are at first employed. Anæsthesia is necessary for the radical removal of the product of conception. The placenta may have to be removed by means of the curette. The fœtus can generally be best taken away by slowly introducing the finger and using that alone.
- (3) In the fourth month the feetus must be removed without the aid of the curette, although remnants of placental structure and membranes may call for the use of that instrument.
- (4) Even after spontaneous abortion the uterine cavity is to be explored, and all remnants promptly removed by raeans of the curette.
- (5) Only very free hæmorrhage calls for the employment of the tampons. They are to be introduced into the vagina only. Uterine tampons are to be avoided as much as possible.

These views are not particularly novel, nor very radical, but they bear examination as embodying the results of large and conservative practice by a modern accoucheur.—New York Medical Record.

SERUM IN TUBERCULOSIS AND SYPHILIS.

Serum of an animal inoculated with tuberculin always contains toxic principles. The milk of an animal inoculated with tuberculin is innocuous. Normal serum retards the progress of tuberculosis. Microbic serum can prevent its development. The serum of a dog, inoculated eight days before with blood from a syphilitic, was inoculated in a woman suffering from nervous symptoms (tabetic). She had had syphilis twenty years before. After the injections the symptoms disappeared. In a woman with syphilis of eighteen months standing, who presented extensive ulcerations uninfluenced by specific treatment, seven injections of immunized dog serum reduced the ulcers to one-fifth their previous size. —Richet, Soc. de Biol.

A METHOD OF WASHING ECZEMA.

A corollary of the extensively-held modern view of the probable parasitic etiology of eczema, says Dr. Leslie Phillips, in the British Medical Journal, is the necessity for cleanliness as an element of treatment, while the long-known injurious influence of water on eczematous surfaces raises a difficulty. The use of olive oil as a substitute for water for the purpose of cleansing the skin, and, indeed, of removing the grime of manufacturing trades, is commonly known, but its value is not sufficiently recognized. Although I have long advised patients with eczema to use this method, it is only recently that I have been impressed with its adaptability for continued use, and of its value when persevered in. The following case is an instance in point:

A lady, aged 48, was attacked with acute erythemato-papular eczema of the face, which continued to spread rapidly until the application of water, either for washing or in lotion, was suspended. When washing with oil was adopted the disorder rapidly subsided, and so satisfied is she with the general effect on the skin that the patient has for two months not allowed water to touch her face. The method employed is to smear the skin well with a pledget of cotton-wool saturated in olive oil. The oil is then removed by gently rubbing the surface with a corner of a dry soft towel covered with toilet oatmeal.

Pustular eczema, I find, generally requires washing at intervals with soap and water.

VINEGAR AS AN ANTIDOTE TO CARBOLIC ACID.

According to Prof. Carleton, vinegar is an antidote to carbolic acid. Applied to the skin or mucous membrane burnt by carbolic, it causes a rapid disappearance of the characteristic whiteness, as well as the anæsthesia produced by carbolic, and it also prevents the formation of a slough. It also neutralizes any carbolic that may have been introduced into the stomach. The first thing, therefore, to do in cases where carbolic has been swallowed is to make the patient drink some vinegar mixed with equal parts of water, and then to wash out the stomach.—La Semaine Médicale.

AMVI. NITRITE IN PNEUMONIA.

Hayem (Sem Méd.) describes the treatment of 77 cases of pneumonia by inhalations of amyl nitrite. It is generally agreed that this drug should be used with great caution, 4 or 6 minims having hitherto been considered as a large dose. Hayem's experiences show that a much larger quantity may be safely used. For a single inhalation he gives 60, 80, or even 100 minims. These are administered 15 minims at a time, on a compress held 2 or 3 centimetres from the patient's mouth, the whole inhalation lasting from three to five minutes. In ordinary cases one inhalation a day suffices; in severe cases two, given morning and evening, are better. No accident ascribable to this treatment has followed. The inhalations are continued throughout the illness, and for one or two days after the crisis has occurred. The drug does not seem to influence the duration of the disease or the temperature; the effect produced is purely local, consisting of a diminution, more or less marked, in the dyspnœa, in a modification of the sputum, which becomes less viscous, and in a diminution of the stethoscopic sounds. It does not seem to affect the virulence of the pneumococci; its action seems to be exercised entirely on the pulmonary circulation, which is probably subject to a sudden flushing with blood, analogous to that occurring in the skin, which hastens the return of the blood by the pulmonary channels, and promotes the absorption of the exudation. In eighteen months 77 patients were treated in this way, the deaths numbering 16. A large number of these were bad subjects, being drinkers or confirmed drunkards. Neurotic subjects bear the treatment badly owing to the fears they entertain. It is highly important that during the inhalation the patient should be in the recumbent position.—Brit. Med. Jour.

THYROID IN GOITRE.

Dr. Fletcher Ingals, of Chicago, has made a careful study of fifty cases of goitre treated with thyroid. The conclusion is that this remedy is quite as effective when administered internally as when given hypodermically.—Journal of Practical Medicine.

GONORRHŒA.

A good injection is a one per cent. solution of creosote in borated decoction of witch hazel. Employ four times daily. It will destroy the poison in a few hours.—*Clinique*,

THE ACIDS AS STIMULANTS TO THE PANCREATIC SECRETION.

The researches of Dolnisky, based on those of Becker, show that the ingestion of a solution of carbonic acid has a stimulating effect on the pancreas, provoking an abundant flow of the secretion. The experiments were carried out on dogs, in whom a pancreatic fistula had been created. The animals were fed on bread and milk. When the flow of the secretion became nearly constant, 250 c.c. of acid solution, mixed with the food or drink and heated to 17 or 18 degrees C., were injected.

Hydrochloric acid was tried first. This produced an extremely abundant flow. A solution ten times weaker than the normal acid of the stomach was sufficient. Phosphoric, acetic, lactic acids all produce the same effects, but in a less degree. Alkaline substances or solutions produce no increase in the flow.—Courier Med.

GONORRHŒA.

The injection should be used four times a day and retained as long as possible: The addition of antipyrin prevents smarting.—Vatier.

THEOBROMINE.

Dr. Huchard said that for the last two years he had employed theobromine as a diuretic in cardiac and renal affections, and considered it to be much superior in this respect to digitalis and caffeine. His mode of prescribing it was to give the first day six powders of ten grains each, the second day eight powders, and the third day ten. This dose, which he considered a maximum, he continued for three more days. Sometimes, in order to prolong the diuretic effect, he gave, the day following, one-fiftieth of a grain of digitaline. Theobromine is not toxic, nor does it injure the renal epithelium; it is especially useful in interstitial nephritis, and those heart diseases complicated with kidney lesions.—Medical Press.

TINCTURE OF CANTHARIDES AND ALBUMINURIA.

In an article on this subject, published in the Gazette Hebdomadaire de Médicine et de Chirurgie for October 26, M. Du Cazal remarks that at a recent meeting of the Académie de Médicine M. Lancereaux stated, in a communication on albuminuria from a therapeutic point of view, that when uræmia has ceased we must seek to modify the altered tissues, and that the medication necessarily varies according to whether it is the connective and vascular tissues, or the epithelial tissues, that are involved—in the first case potassium iodide was to be preferred, in the second case cantharides had given him the best results. Two cases of epithelial nephritis with albuminuria and considerable anasarca had been cured in less than three months under the influence of cantharides; while in the case of a patient who had considerable anasarca, and passed only 15½ ounces of urine in twenty-four hours, the renal secretion became abundant within two days after the ingestion of twelve drops of tincture of cantharides, and in eight days the anasarca had disappeared.

The question under discussion, says the author, is certainly one of great importance. Acute catarrhal nephritis often results in death from the uræmic and congestive symptoms it causes, in the presence of which the physician is too often powerless.

Since M. Lancereaux's communication, Du Cazal has had occasion to apply the treatment in a number of cases of nephritis, and in four cases out of five has obtained complete recovery in a surprisingly brief period, the fifth case showing considerable amelioration only. Three of these cases were acute nephritis, one consecutive to pneumonia that had been treated by cold water; the others were of scarlatinous origin.

It was his first trial of the treatment, and the rapidity and persistency of the recovery were a great surprise to him. In the third case, one of acute catarrhal nephritis of influenzal origin, the drug caused rapid diminution and then complete disappearance of albumin, although the pathological condition had a manifest tendency to become chronic. Notwithstanding the failure to obtain recovery in the fifth case, says M. Du Cazal, the results ascertained in the others absolutely confirm the account of those communicated by M. Lancereaux to the Académie.

M. Laboullene and M. Olivier have recalled the fact that the treatment by tincture of cantharides was recommended by Grisolle and by Raver, but had been forgotten until M. Lancereaux drew the attention of the profession to it, thereby, in the author's opinion, rendering a great service to physicians, and, above all, to patients.—Therapeutic Gazette.

SALICYLIC SOAP PLASTER FOR ECZEMA SCLEROSUM.

R.—Emplastr. saponat. liquefact., 2½ oz.Oleo olivar., 5 dr.Acid. salical., 22 gr.

The plaster is spread and cut into strips, which are firmly adapted to the affected parts, and left in position for several days. Its great advantage is that it is not necessary to change it frequently.

MYDRIATICS.

Atropine is no longer used abroad as a mydriatic; scopolein has entirely supplanted it, because it does not cause glaucoma, like the former.

MENTHOL IN VOMITING OF PREGNANCY.

Dr. Weill states that every form of vomiting during gestation can be relieved by a 20 per cent. solution of menthol in olive oil; dose, ten drops on sugar whenever nausea appears.—The Practitioner.

OBSTETRICS

IN CHARGE OF

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ASSISTED BY

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We find the following prescriptions in the Medical Record:

LUCORRHIEA OF PREGNANCY.

A five per cent. solution of lactic acid.—Dorland.

CONSTIPATION OF PREGNANCY.

R.	Aloini	gr. ½
	Ext. bellad	gr. ¼
	Cascar. sag	gr. ½
	Strychn. sulph	gr. $\frac{1}{60}$
		- Hirst.

LABOR.

Ŗ.	Quiniæ sulphat	. Э ij.
	Acid. sulphuric aromat., q.s. ut ft. sol.	
	Syr. zingiberis	aa fl. 👼 i.
	Aquæ	ad fl. 3 ii.

M. Sig. A tablespoonful at once, and afterward a dessertspoonful every four hours. (In atony of the uterus.)—Ringer.

THE TREATMENT OF PUERPERAL CONVULSIONS.

In a paper published in the *Medical Age*, February 10, Dr. T. K. Holmes, of Chatham, summarizes his methods in the treatment of puerperal convulsions as follows: A restricted diet, abundance of water, hydragogue cathartics, and sweating by artificial heat—and in some cases by sudorifics—are necessary in all cases and in all stages; chloroform is the most reliable agent for controlling the fits, and should always be used

for this purpose; chloral and bromide of potassium are useful, especially where convulsions are frequent and coma not profound; pilocarpine is a strong sudorific, but is inadmissible when the circulation is weak or when the lungs are loaded with mucus; bleeding is of use in plethoric cases; morphine is dangerous when coma is a marked symptom, but is useful in other cases; prompt delivery should always be practised, labor being induced by artificial means if necessary.

The American Journal of Obstetrics publishes in the March number a valuable paper by Dr. W. T. Lusk, which was read before the Section of Gynæcology of the College of Physicians of Philadelphia. In it the author emphasizes the disposition in many, who adapt Listerism to obstetrical practice, to ignore subjects of vital importance, such as, (1) method of germ invasion in septic diseases; (2) the natural resistance offered by the tissues attacked; and (3) the causes of symptoms and of the fatal ending. The vagina not being a closed canal, and with the widespread prevalence of septic germs, it has been argued that the potential factors for the generation of puerperal fever exist in every woman, and, therefore, the application of germicides to the vagina in all labors is called for. Ahlfeld reports 3,000 cases of confinement at the Marburg Maternity which had received the preventive treatment, with eighteen deaths, of which three were from eclampsia, and four resulting from resort to Cæsarean section. Tarnier, with the same methods, reports 7,427 cases, and twenty deaths from sepsis; the Emergency Hospital, New York, 351 cases, with four deaths from sepsis. On the other hand, the normal vaginal secretion furnishes a soil hostile to all forms of cell growth, and Döderlein has discovered a bacillus which, by intensifying the acid reaction of the vaginal secretion, renders the latter especially unfavorable to the multiplication of the streptococcus, the dreaded enemy of the child-bearing woman. The cervical mucous plug protects against the invasion of vaginal micro-organisms. The lucocytes, according to Walthard's observations, form a line of defence between the attacking germs below and the clear part of the mucous plug above, and thus, in natural labors, the protection of the uterine cavity is com-The downward current of the amniotic fluid, the descent of the child, the associated leucocytosis and increase of vaginal secretion, and the passage of the placenta, all serve in clearing and protecting the tract from infection. When nature provides such strong defence, it is questionable whether antiseptic douching is commendable. Leopold reports 3,392 cases in which injections were used, with seven deaths, and 2,014, without douching, with three deaths from infection. M. Ermann had no death from sepsis in 1,200 cases without douching, and Garri Gues 1,050 cases, with four deaths. A careful examination of mortality statistics shows

these to be slightly more favorable when the routine practice of douching has been abandoned, but the difference is not important, and extreme ground on either side should not be taken. Internal examinations should be as infrequent as possible, keeping in view the ideal of obstettic art, to conduct labor without internal manipulations. The obstetrician should take as much pains to disinfect the hands and instruments as the surgeon. In thirty-five per cent. of cases where the thermometer shows elevation of temperature, the disturbing causes are external to the genital organs. There is wide difference in symptoms due to streptococcus infection. The streptococcus is subject to numerous external influences, and the susceptibility of the patient varies quite as much as the pathogenic activity of the micro-organism. The earlier the rise of temperature the more severe, as a rule, are the symptoms, and fatal cases are most commonly those in which the streptococcus has been introduced to the uterine cavity during labor. Staphylococcus infection is usually of mild type. Both staphylococci and streptococci may occupy the uterine cavity together, but the latter usually drive out the former. The bacterium coli appears best able to sustain itself in the presence of the streptococcus, and the gonococci are driven away by invading streptococci. Undoubtedly the removal by curette and douche of materials which feed putrefactive germs is indicated, but when streptococcus infection has gained full headway the curette and douche are of no avail. In a great proportion of cases the process is, and remains, a localized one, and the indiscriminate use of the curette must be deprecated, as it sometimes destroys the barrier formed by the leucocytes, and opens the door to the enemy.

SURGERY

IN CHARGE OF

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A New Form of Incontinence of Urine.

The Revue internationale de médecine et de chirurgie sor March 10 contains an abstract of an article from the Annales des maladies des organes génito-urinaires, in which the author, M. Abarran, calls attention to a new form of incontinence of urine in young girls, which is due to a defect in the development of the internal genital organs. He relates the case of a patient who had been troubled with incontinence for six years. It had appeared when menstruation was established, and all treatment had failed to bring about a cure. The patient was thin, badly developed, and nervous. The external genital organs were normal, but an examination revealed the absence of the anterior cul-de-sac of the vagina; the vaginal wall was tense, and it was inserted directly on the anterior lip of the cervix uteri; the posterior cul-de-sac was well developed; the uterus was small and conoid; the left ovary was in its proper place, but the right ovary was nearer than normal to the anterior vaginal wall. The bladder and the urethra were normal, but a malformation of the internal genital organs existed which consisted of an abnormal adhesion of the posterior wall of the bladder to the anterior surface of the uterus. This explained the cause of the incontinence. When the patient lay down the uterus became displaced backward, and dragged with it the posterior wall of the bladder, which adhered to its anterior surface; when the patient stood up the uterus became displaced forward and pressed heavily on the posterior wall of the bladder, thus causing the vesico-urethral sphincter to remain open.

An incision was made in the anterior wall of the vagina, extending from the neck of the uterus almost to the urethra. The uterus was detached from the bladder, and the interutero-vesical space was packed with iodoform gauze. At the end of fifteen days the faradic current was applied to the neck of the uterus three times. This treatment, says the author, resulted in a complete cure.—New York Medical Journal.

FRACTURES OF THE ELBOW JOINT.

(1) All fractures of the lower end of the humerus, once in position, are held in place if the forearm is kept acutely flexed. (2) Such flexion can be used without danger to the limb or undue distress to the patient. (3) The only force required being one of flexion; no rigid apparatus is needed, it being sufficient to strap the forearm to the arm. One of the strong points of this treatment, therefore, is its perfect simplicity. (4) The points to emphasize are: Be sure to replace fragments as flexion is made, taking great care that the internal condyle is as low as possible and the joint not widened by effusion between fragments. If the condyle is kept down, no gunstock deformity can occur. (5) In cases thus far treated the amount of motion gained has been slightly greater than after ordinary methods. The amount of deformity has been very much less.—

Smith.

THE OBJECTS AND LIMITS OF OPERATIONS FOR CANCER.
(Will be concluded next month.)

GENITO-URINARY AND RECTAL SURGERY

IN CHARGE OF

EDMUND E. KING, M.D. Tor., L.R.C.P. Lond.,

Surgeon to St. Michael's Hospital; Physician to House of Providence and Home for Incurables; Pathologist, Toronto General Hospital.

TREATMENT OF PROSTATITIS WITH HOT WATER AND POTASSIUM PERMANGANATE.

Abeille, of Nantes, has been very successful with an original treatment of gonorrheal prostatitis, which he describes as follows in the Revue clin. at And. et de Gyn. After securing anæsthesia of the urethra with cocaine, he introduces a Nélaton sound No. 12, and connects it with a reservoir containing potassium permanganate at 1 per 4,000 or 1 per 2,000, according to the ability of the urethra to support it, at a temperature of 35 to 38 degrees C. The liquid passes through the sound up to the sphincter and flows out between it and the walls of the canal. When the penile portion is thus well irrigated, the sound is inserted through the sphincter, without interrupting the flow of the liquid, and the bladder receives the same cleansing. If there is a strong desire to urinate, the urine can pass out through the sound. With this treatment Abeille has aborted many a case of prostatitis which would have suppurated if left to itself.—Revue Internat. de Méd. et de Chir., March 10.

EUROPHEN IN VENEREAL DISEASES.

Kopp (Aertstlicher Central. Anzeiger, September 20, 1895) has employed this remedy in nineteen cases of soft sore, nine of inguinal bubo, and seven of mucous tubercles in the genito-crural and anal regions. Previous investigators having found it useless in gonorrhea; it was not again tried in this complaint. In five of the cases of soft sore the ulcer was scraped out, under local ether anæsthesia, the bleeding stopped by sublimate compresses, and the surface then thickly powdered with europhen 1 part, boric acid 3 parts. This formed a crust, which did not separate, but was dusted with the powder twice daily. The ulcers healed under this crust in six to eleven days. The remaining fourteen cases were cleaned up with 1 in 1,000 sublimate, and then treated with europhen, pure or mixed with boric acid powder (for economy) in varying proportions, the weakest being one in six. The average time required for heal-

ing was seventeen days, about the same as with iodoform. No instant effects were observed in any case, but the remedy did not prevent the formation of buboes. Europhen was also found very useful in two buboes which had burst and become converted by infection into large venereal ulcers. These healed in twenty days under the use of europhen 1 in 3, with boracic acid. A similar mixture, of the strength of 1 in 6, was employed with success in the treatment of 7 other simple buboes after scraping. Europhen-boracic powder 1 in 4 aided the healing of mucous tubercles, the patient being under mercurial treatment. The condylomata skinned over in three to ten days. Kopp considers that europhen is less irritating than any other odorless antiseptic powder; that it is specially indicated in the treatment of venereal ulcers after scraping; and that it is useful, but not irreplacable, in the treatment of other specific and non-specific ulcerations.

TECHNIQUE OF SUPRAPUBIC PUNCTURE.

Von Dittel (Wein klin. Woch.) has tapped the bladder above the pulses considerably more than 100 times. He washes it out by means of a two-way cannula, and then introduces a Jacques catheter (No. 8), the caoutchouc of which has the property of swelling up, and so effectually preventing any escape of urine. The catheter must be changed at least once in eight days; its stopper is to be removed whenever the necessity for micturition is felt—once, at least, every four or five hours. When introduced in this way the foreign body seems much less likely to induce vesical catarrh than if inserted per vias naturales; this is probably due to the absence of the bacteria of the urethra. The puncture has a great tendency to spontaneous closure, which is a manifest advantage when the indications for its employment have been obviated. Von Dittel has always operated in the mid line, but of late Schepf has conceived the ingenious notion of a lateral puncture, whereby the rectus or pyramidalis is used as a sphincter, and the permanent catheter done away with. One disadvantage of this method is that the puncture requires keeping open by the nightly passage of a sound or drain. Furthermore, Von Dittel has shown that the depth of the peritoneal pouches inclosed by the urachus, obliterated hypogastric arteries, and the epigastric arteries, is very variable, so that in some cases but a very small portion of the anterior wall of the bladder is free from peritoneum. In such instances lateral puncture may lead to perforative peritonitis, and of this he records one fatal case. He has, therefore, abandoned Schopf's procedure, and reverted to his own former method. He has found, however, that the poorness in vessels of the linea alba sometimes leads to necrotic changes round the puncture, and, therefore, now adopts the plan, particularly in old people, of operating just at the edge of this tendon. - British Medical Journal.

PATHOLOGY AND BACTERIOLOGY

IN CHARGE OF

JOHN CAVEN, BA., M.D., L.R.C.P. Lond.,

Professor of Pathology, University of Toronto and Ontario Veterinary College; Pathologist to Toronto General Hospital and Home for Incurables;

AND

JOHN J. MACKENZIE, B.A.,

Bactericlogist to the Provincial Board of Health;

ASSISTED BY

JOHN A. AMYOT, M.B. Tor.,

Demonstrator of Pathology, University of Toronto; Assistant Surgeon to St. Michael's Hospital; Physician to House of Providence. HIBBERT HILL, M.B.,

Bacteriological Laboratory of the University Medical Faculty.

TUBERCLE BACILLI IN MILK.

This author has made two sets of experiments on animals with the object of finding whether the mixed milk, as found in the markets, contains tubercle bacilli. In the first set sixty animals were used, forty being inoculated in the peritoneum with two to two and a half cubic centimetres each, and the remaining twenty being used as control animals and inoculated with sterilized milk. Young, healthy guinea-pigs of about three hundred and fifty grammes weight were used. Of the forty, three died of a high grade of tuberculosis, and eight died within eight or ten hours after injection. From the organs of the latter a pathogenic bacterium was isolated.

The second series of experiments was very interesting. By testing centrifugalized milk, the author found that many bacteria were not carried by their specific gravity to the bottom of the vessel, but remained entangled in the layer of cream. In accordance with this evidence he inoculated animals with one to one and a half cubic centimetres of a mixture of cream and sediment. The results were as follows: Thirty-eight per cent. of all animals injected were tuberculous, and thirty per cent. were very much emaciated and died of a high grade of tuberculosis. Of nine control animals one died of peritonitis.

Pearlsucht is seldom seen in animals living on the meadows, but in the so-called "zuckervieh"—the stall-fed cattle—a high grade of tuberculosis is often seen. The author thinks that the sterilizing of milk and sanitary

measures in regard to butter and milk are only palliative, and that the root of the evil must be attacked by testing with tuberculin and destroying all infected animals.—Kuno Obermuller, M.D., in Hygienische Mundschau, October 1, 1895—International Medical Magazine.

THE EXAMINATION OF SPUTUM FOR TUBERCLE BACILLI.

Spengler (Deutsche med. Woch., 1895, No. 15) recommends the employment of pancreatin for the digestion of sputum preparatory to its examination for tubercle bacilli. The procedure is as follows: Equal parts of sputum and lukewarm alkaline water are thoroughly mixed with from two to fifteen grains of pancreatin, and are allowed to digest at the body temperature for from two to three hours, when a few drops of strong carbolic acid are added to prevent putrefaction. A sediment quickly forms. The supernatant fluid is poured off, fresh alkaline water is added, and a further digestion in the incubator is allowed. The sediment after this second digestion is smaller. It is collected on filter-paper, and is examined in the usual way for the bacillus tuberculosis.

By this method the sediment from a day's sputum is so small, as a rule, that a few cover-glass preparations only are needed for its thorough examination. There is no impairment of the staining qualities of the bacilli, and Spengler has found this a very quick and reliable method of examination when the tubercle bacilli are present in small numbers. It is, of course, unnecessary when they are abundant.—American Journal of the Medical Sciences, October, 1895.

HYGIENE AND PUBLIC HEALTH

IN CHARGE OF

WILLIAM OLDRIGHT. M.A., M.D. Tor.,

Professor of Hygiene in the University of Toronto; Surgeon to St. Michael's Hospital;

E. HERBERT ADAMS, M.D., D.D.S.

SCHOOLHOUSE SANITATION IN BOSTON.

Mayor Quincy has appointed Professor Francis W. Chandler, of the Institute of Technology, Frederick Tudor, an expert in sanitation, and Professor S. Homer Woodbridge, also of "Tech.," as an expert committee to examine into the present condition of the schoolhouses in respect to ventilation and sanitation.

MORTALITY FROM DIPHTHERIA SINCE THE INTRODUCTION OF THE SERUM.

Counting the cases of mortality from diphtheria, in France, during the first semester of the years 1888 to 1894. Mr. H. Monod found the average to be 2,627. During the first semester of 1895 it was only 904 deaths, or a diminution of 65.6 per cent. If we consider that diphtheria is more common in the country than in the towns, we may figure 15,000 the number of lives saved in France by the use of the serum.—Le Progrés Medical.

DIPHTHERIA.

The following resolution was adopted by the State Board of Indiana at its last meeting:

Whereas, it has been fully demonstrated by physicians, both in private and hospital practice, that antitoxin is the best means for the cure and prevention of the much-dreaded contagious disease, diphtheria;

Resolved, That the Indiana State Board of Health, recognizing its value, does hereby indorse and advise its use by the local health officers throughout the state, both for prevention, cure, and control of epidemics of said disease.

Antitoxin continues to be the accepted remedy in the treatment of diphtheria by the leading physicians, and the too exclusive reliance of the sanitary authorities everywhere, notwithstanding Mr. Lennox Brown's published statements and Dr. John B. Hamilton's echo of its dangers, to which allusion was made in our January number. Dr. Hermann M. Biggs, pathologist of the Health Department of New York, to whom belongs the credit of introducing the remedy in this country, on a recent visit to Chicago, in an interview with the health commissioner of that city, took occasion to say (Chicago *Tribune*, January 8):

"Taking all cases into account—those treated early and late—the mortality in diphtheria cases in New York for four weeks ending December 22nd, 1895, was 16.6 per cent For the same period in 1894 the mortality was 24.5 per cent., and in 1893 it was 36.6 per cent.

"Conditions in Chicago are much more favorable for the treatment of the disease than inNew York. We have a great tenement-house population, more than 800 to the acre, a denser population than at any other place in the world. Light and ventilation are bad, and it is among these people cases run until the fourth and fifth day before notification is received at the health department, and then it is often too late. The health department supplies all institutions and poor patients with the serum free of charge. There are fifty stations for its distribution. There are three grades of serum, the first and second for use in mild and first-stage cases, and the third for severe cases. One year ago these cost, according to grade, \$4.25, \$8.50, and \$12.50 a phial or dose. The cost now is 50 cents, \$1, and \$1.50.

" There is not a single pathologist or bacteriologist of note in the world to-day who opposes the use of antitoxin." \cdot

Diphtheria, nevertheless, at the time of this writing, is the most universally prevalent of all infectious diseases, and is causing more deaths than any other disease except consumption.—Sanitarian.

THE LONDON DEATH RATE.

The number of deaths in London last year was 85,138, equal to an annual rate of 19.4 per 1,000, the population being about 4,392,000.

TUBERCULOSIS IN PARIS.

The proportion of deaths from tuberculosis in Paris is 490 per 100,000 inhabitants. In the Department of the Seine, whose population, including that of Paris, numbers over three million, the average mortality from tuberculosis, during the period comprised between 1889 and 1893, was 14,565.

Editorials.

THE MEDICAL CURRICULUM.

In our last issue we referred to a conference which had been held in Toronto between representatives of certain medical colleges, when certain matters pertaining to the medical curriculum for Ontario were discussed. The representatives from the Toronto medical colleges preferred four sessions of eight months each rather than four sessions of six months each, with an additional year to be devoted to practical work, or to original research.

It is only a short time since the Ontario Medical Council, after careful consideration and free discussion, established the five years' course. members were guided chiefly by the requirements of the curriculum of Great Britain, and some of them, at least, now think the new regulations should receive a fair trial before any radical changes are contemplated. If, however, all the medical faculties in the province united in making a request for a modification of the present regulations, the matter would have been carefully considered. - Such concerted action on the part of the schools is, for the time being, made impossible by the attitude assumed by the authorities of Queen's University, Kingston, Dr. Moore, the representative of Queen's in the Medical Council, at the recent convocation held April 28, indicated clearly that the governing body of his university was opposed to any change. Principal Grant, in supporting these views, said (as reported in The Mail and Empire) "that since the Medical Council of the province had established the fifth session for independent research, hospital practice, and laboratory investigation, it would be disrespectful to knock the plan on the head before an attempt had been made to put it into practice. Further, an eight months' session would be a great disadvantage to the poorer men among the students who, at present, during the six months' vacation, earn money to help in their college work. The Medical Council would act wisely in not pressing its powers too rigidly, and in not making too many changes. When they did make changes they should stick to them."

As the demand for a change such as proposed comes only from a limited constituency, it is unlikely that we will hear about it for two or three years at least; but we think that the members of the council, while desirous of giving their new regulations as to the five years' course a fair trial, should watch carefully the results of their recent legislation—especially with reference to the fifth year, and consider at the same time the results in certain medical colleges outside of Ontario where sessions of eight or nine months are held during each of four years.

THE JENNER CENTENARY.

THE PRACTITIONER (English) does honor to the memory of the great Jenner by devoting a large portion of its May issue to a record of the history of his work in connection with vaccination. From it we learn that Edward Jenner performed his first vaccination, one hundred years ago, May 14, 1796, on the person of James Phipps, æt. 8. The editor of The Practitioner says: "It is remarkable that the centenary of that first vaccination is to be celebrated with appropriate pomp in Germany, in Russia, in the United States—but not, as far as I know, in England. This is surely a particularly striking example of a prophet being without honor in his own country. Jenner was not only one of the greatest benefactors of the human race, but his name will live to the last syllable of recorded time as one of the glories of British medicine."

We learn from the same issue of *The Practitioner* that Jenner practised medicine for a short time in London, but during the greater part of his professional career he was simply what is called a country doctor. He was born at Berkeley, a village in Gloucester, in 1749; and his father, the vicar of Berkeley, died during Edward's childhood. He, fortunately, was not neglected, but, under the guardianship of his elder brother, received an excellent education—chiefly classical. After leaving school, he served the good old-fashioned term of apprenticeship under a surgeon in a village near Bristol, after which he went to London in 1770, where he finished his medical education at St. George's Hospital, being at the same time a pupil of John Hunter, living in his house two years.

With reference to the great discovery of vaccination, *The Practitioner* speaks as follows ("Heroes of Medicine"):

"The intellectual seed which grew into so splendid a harvest was sown in Jenner's mind while he was an apprentice at Sodbury. A young countrywoman came one day for advice, and on something being said in her hearing about smallpox she at once said, 'I cannot take that disease, for I have had cowpox.' This was the first time Jenner had heard of a piece

of medical folklore which was fairly well known in the district, and it made a deep impression upon him. The idea remained in his mind, slowly but surely maturing. He spoke to Hunter, in the days of his pupilage, of the Gloucestershire belief in the protective effects of cowpox, and Hunter referred to the subject both in his lectures and in conversation, but apparently attached little importance to it. The matter, however, haunted Jenner's mind, and he spoke about it to his medical acquaintances in season and also, it would appear, out of season, for he says that the members of a Medico-Convivial Society at Rodborough, to which he belonged, threatened to expel him if he persisted in boring them about cowpox. Feeling sure, however, that he was on the right way, he went on working in the spirit of his great master's precept—' Why think? Why not try the experiment?'

"On May 14, 1796, he had at last an opportunity of fairly testing the prophylactic efficacy of cowpox. Matter was taken from the hand of Sarah Nelmes, who had been infected by her master's cows, and inserted by two superficial incisions into the arms of James Phipps, a healthy boy about eight years old. The symptoms that followed were those now familiar to everyone. On July 1st the boy was inoculated with matter from smallpox pustules without any result. This was the first successful vaccination."

RELATIONS OF MEDICAL EXAMINING BOARDS TO THE STATE, TO THE SCHOOLS, AND TO EACH OTHER.

Many prominent physicians in the United States are making strenuous efforts to raise the standard of preliminary education for intending medical students. Dr. William Warren Potter, of Buffalo, president of the National Confederation of State Medical Examining and Licensing Boards, chose the above title as the subject of his annual address at the sixth conference of this body, held at Atlanta, May 4, 1896.

He said there were three conditions in medical education reform on which all progressive physicians could agree—namely, first, there must be a better standard of preliminaries for entrance to the study of medicine; second, that four years is little time enough for medical collegiate training; and, third, that separate examination by a state board of examiners, none of whom is a teacher in a medical college, is a prerequisite for license to practise medicine. It is understood that such examination can be accorded only to a candidate presenting a diploma from a legally registered school.

He further stated that a high school course ought to represent a mininum of academic acquirements, and that an entrance examination should

be provided by the state for those not presenting a high school diploma or its equivalent.

He did not favor a National Examining Board, as had been proposed, but instead thought all the states should be encouraged to establish a common minimum level of requirements, below which a physician should not be permitted to practise; then a state license would possess equal value in all the states.

In regard to reciprocity of licensure, Dr. Potter thought it pertinent for those states having equal standards in all respects to agree to take this exchange of inter-state courtesy by official endorsement of licenses, but that other questions were of greater moment just now than reciprocity. Until all standards were equalized, and the lowest carried up to the level of the highest, reciprocity would be manifestly unfair.

He urged that the states employ in their medical public offices none but licensed physicians. This, he affirmed, would tend to stimulate a pride in the state license, and strengthen the hands of the boards.

He denied that there was antagonism between the schools and the boards, as had been asserted. He said that both were working on parallel lines to accomplish the same purpose, that there could not possibly be any conflict between them, and that they were not enemies, but friends.

The medical journals of standing, from one end of the country to the other, he affirmed, were rendering great aid to the cause of reform in medical education, and the times were propitious.

He concluded by urging united effort by the friends of medical education, saying that "the reproach cast on us through a refusal to recognize our diplomas in Europe cannot be overcome until we rise in our might and wage a relentless war against ignorance, that shall not cease until an American state license is recognized as a passport to good professional standing in every civilized country in the world."

ONTARIO MEDICAL ASSOCIATION.

Ontario Medical Association, to be held in Windsor, June 3 and 4, will be in all respects very successful. The president, Dr. Grasett, has been indefatigable in his efforts to work with his fellow-officers in doing everything that is necessary to make the arrangements as complete as possible. The Committee on Papers and Business, under the chairmanship of Dr. Graham, has prepared a good programme. The committee of arrangements, composed largely of physicians in Windsor and the neighborhood, has done good work. It is likely that the visiting members will be well

received and well treated. Dr. Victor C. Vaughan, of Ann Arbor, Dr. Carstens, of Detroit, and many others from the States, have accepted invitations to attend.

The following is a partial list of papers promised:

Discussion in Medicine.—Treatment of Phthisis, W. J. Geikie, Toronto; George Hodge, London; V. H. Moore, Brockville.

Discussion in Surgery.—Operation—Treatment of Mammary Carcinoma, W. Burt, Paris; A. B. Welford, Woodstock; G. T. McKeough, Chatham.

Discussion in Obstetrics.—Treatment of Puerperal Sepsis—H. T. Machell, Toronto; G. Acheson, Galt; H. Meek, London.

Meetings of Medical Societies.

TORONTO MEDICAL SOCIETY.

THE regular meeting of the Toronto Medical Society was held April 16, 1896.

The minutes of the previous meeting were read and adopted. Dr. J. G. Mennie was proposed as member.

Dr. Mennie presented a brain which he had removed from a man who had committed suicide. When he arrived he found the patient unconscious, breathing with a deep, heavy stertor, and a pulse rate of 150. He had shot himself in the forehead, a little to the right of the middle line. opening through the skull would admit his finger. The patient soon regained consciousness, and when asked for the reason why he had committed the deed he said there was none, but he was sorry he had not killed himself; he was only sorry that he was alive. A probe of its own weight dropped into the cavity four inches. The wound was dressed with acetanilid. There was no paralysis nor abnormality of sensation. He continued well for several days, when his temperature and pulse showed signs of inflammatory trouble. Death followed. The brain was then opened before the society. About the centre of the left cerebral lobe was a small patch of softening, and what appeared to be hæmorrhagic and necrotic tissue. The bullet was found to have entered the right lateral ventricle, and, after traversing its whole length, lodged in the posterior extremity.

Dr. Oldright reported a case in which the patient had shot himself with an old horse pistol. There was no bullet in the charge, but the brown paper wadding had penetrated the skull. This man also was perfectly conscious until a short time before his death.

Dr. McMahon, in discussing the subject, said he believed too often such unfortunates were too uncharitably looked upon; their act was often the result of physical disease.

Dr. Powell held the view that in many cases suicide was the refuge of the coward.

Dr. James McCallum held that individuals who, under homicidal impulses, committed murder should receive capital punishment.

Dr. Webster referred to a case where the patient, who was not a bad man, seemed subject to conditions over which he had no control. He thought the man should not be held responsible for a deed committed at such a time.

Dr. Oakley and Dr. Starr also discussed the question.

Dr. Oakley reported a case in practice. The patient was a druggist who attempted to dispense some nitric acid in a bottle which had contained carbolic acid. The explosion threw the nitric acid into his eyes. Oil and an alkali, with cold applications, constituted the treatment.

Drs. Webster, Oldright, and Powell discussed the case.

Dr. Oakley asked for opinions as to the best treatment of a case of fracture of the patella, now three months treated. The patient could not afford to remain quiet the length of time recommended.

Dr. Oldright referred to cases where he had allowed the patients to go about in three months, a plaster of Paris splint being applied.

Dr. Powell and Dr. Starr discussed the paper.

The next regular meeting of the society was held April 23. Minutes of previous meeting read and adopted. Dr. Mennie was elected a member of the society.

Dr. Burnham read a paper, and reported a case of optico-ciliary neurotomy. The patient was a boy aged twelve. In September, 1895, he received an injury to his right eye while crossing the Atlantic, the nail of his thumb coming in contact with it. The result was a penetrating wound of the cornea and prolapse of the iris. There being danger of sympathetic inflammation, the conjunctiva was divided over the internal rectus, the tendon of that muscle severed, and the optic nerve transcised far back. Posterior surfaces were then reflected between the lids, and the optic nerve divided close to the sclerotic. The ciliary nerves were also carefully cut away, the eyeball being left. There was free bleeding for a short time, but this was checked and the clots removed, the eye replaced, and cold applications were applied. The eyeball is somewhat smaller than the other; the cornea is anæsthetic. The essayist pointed out the advantage of this operation over the total removal or enucleation of the This was an operation specially suitable for children. precautions results were usually satisfactory. The reaction following operation was not severe. There was practically no danger from sympathetic trouble now. He pointed out that if a fereign body struck the cornea it would not be felt. As to the formation of corneal ulcers, he thought the chances of their formation was not great, and the cornea would still possess resisting power.

Dr. Ross presented two dilated and unopened pus tubes, each being about five inches long and two inches in diameter. He had removed them

from a woman aged thirty-two, who had been married nine years, with no children. She had what she thought was a miscarriage in March, 1896, after which time she suffered from more or less pain in the pelvis. She had what was called la grippe in 1895. After this symptoms were not very pronounced. On examination, Dr. Ross thought these very movable bodies, which he felt were Rokitansky's tumors—dropsy of the Graafian follicles. The patient made a good recovery. The tubes were opened before the society and found to contain pus.

Dr. Ross presented a second specimen of an appendix which he had removed on account of symptoms of appendicular colic, which had been more or less present in the patient for some years. The appendix was found to be extremely thin when cut down, and feecal concretions could be seen in it owing to its transparency.

Dr. Oldright said it was a difficult question to decide whether to operate or not in primary attacks of appendicitis. It was not so difficult to decide in cases of repeated attacks. Dr. Ross was not in favor of operating in all cases immediately the diagnosis was made. If the appendix had already ruptured into the peritoneal cavity, there was no use in operating in all cases immediately the diagnosis was made. If the appendix had already ruptured into the peritoneal cavity, there was no use in operating generally. In cases where the third stage was reached, where abscess had formed, immediate removal of the appendix was not necessary. All that needed to be done was to simply open the abscess.

Dr. Winnett presented a stone he had removed from Wharton's duct. The patient was a man aged 52, who had been suffering from inflammation of the mouth, which seemed to come from a swelling in the right submaxillary region. The doctor made an incision, cutting down on some hard substance, but did not remove it. Five days later it came away itself.

Dr. Carveth reported a case he had seen which followed a similar clinical course.

Dr. Ross said he had seen a case where perforation of Steno's duct had been diagnosed carcinoma.

Drs. MacCallum, McMahon, W. J. Wilson, Oakley, and Oldright reported cases.

Dr. Oakley described his treatment of a fracture of the patella.

Dr. Ross reported the history of a case. Patient was a man who complained of pain under the edge of the liver for three months. A movable mass was found in the abdomen. A diagnosis was made between distended gall bladder and intestinal trouble, with the possibility of appendicitis. Operation showed malignant disease of the large intestine. An anastomosis was made with the aid of a button.

The Executive Committee recommended that a committee be appointed by the president to meet with committees appointed by the other societies to take into consideration the advisability of having a central meeting place for all the societies. The report was received and adopted.

The meeting then adjourned.

TORONTO CLINICAL SOCIETY.

THE thirtieth regular meeting of the Toronto Clinical Society was held on April 8, 1896, Dr. J. E. Graham presiding.

The following members were present: Walker, Primrose, Oldright, King, Smith, Baines, Spencer, Greig, McDonald, Trow, Wright, Aikens, Graham, Britton, and Brown.

The minutes of the previous meeting were read and adopted.

The secretary read a letter from Mrs. McFarlane, thanking the society for the resolution of condolence.

Dr. Primrose presented a femur of a leg which he had removed by amputation at the hip for tubercular disease of the hip-joint.

Dr. Baines read a paper on "Hereditary Syphilis."

This was discussed by Drs. Primrose, Oldright, Trow, Graham, and Britton.

Dr. E. E. King read a paper on "Roentgen Skiagraphy." Herr Dr. Roentgen's discovery had not been published to the world until its practical value had been determined. To medical men it would be of great aid in the diagnosis of obscure bone lesions and of the location of foreign bodies in the limbs, possibly also of discovering kidney calculi. The essayist then gave a little description of the apparatus used to produce the skiagraph. Following this he gave an extract from an article by Professor Schubert, which contained an historical review of the progress of electrical science.

Dr. King showed some pictures of foreign bodies which were skiagraphed through the hand and arm—needles, a piece of lead, and a piece of glass. One skiagraph showed a small piece of metal in the distal end of the first phalanx of the middle finger which was causing considerable annoyance. He had cut down and removed the body. Some ten months previous a needle had penetrated the finger and broken off. A medical man was consulted at the time, but the patient thought the broken piece was not entirely removed. He had also succeeded in making a skiagraph of a three months' fœtus, which clearly defined the centres of ossification. He had also made one of a wrist on which an excision had been performed which gave a very clear outline of the joint.

Drs. Britton, Primrose, McDonald, Aikins, and Oldright took part in the discussion.

The nomination of officers was then proceeded with. President, Dr. Allen Baines; vice-president, A. A. Macdonald; corresponding secretary, Dr. D. C. Meyers; recording secretary, Dr. J. N. E. Brown; treasurer, Dr. Norman Walker. Executive Committee: Drs. E. E. King, A. Primrose, B. Spencer, H. B. Anderson, and W. P. Caven.

It was then resolved to hold the annual banquet at the next date of meeting.

Drs. N. Walker and W. H. B. Aikins were appointed a committee of arrangements.

Dr. Gregg moved that the by-law in regard to notice of motion be suspended, as he had a motion to make which, in order to be carried before the end of the year, would have to be moved that evening. Seconded by Dr. Oldright. Lost.

Dr. Gregg then gave notice that he would move at the next meeting that the committee be appointed to confer with committees of the other medical societies, and the board of the Ontario Medical Library Association, for the purpose of making arrangements for a central meeting place.

Society then adjourned.

PATHOLOGICAL SOCIETY OF TORONTO.

IN the absence of Dr. Carveth, the chair was taken by Dr. Primrose. There were present Drs. McPhedran, Greig, Wilson (W.J.), Anderson, MacCallum (J.M.), Primrose, J. Caven, H. H. Oldright, F. N. G. Starr, J. Sheahan, and N. McL. Harris.

Dr. McPhedran showed his specimen of aneurism of the abdominal aorta, rupturing into the pleura.

ANEURISM OF THE AORTA.

The specimen was from a man aged 35, a harnessmaker by trade, but for the last few years he worked in a grocery store, and had to do heavy lifting. He had taken a good deal of alcoholic stimulant for twelve years. Had three attacks of gonorrhea six years ago. There was a sore on the penis after the second attack; it was well in a few weeks. He took medicine for three weeks after the third attack. There is no history of subsequent signs of syphilis. Fifteen years ago he was injured by a horse falling on him. There was severe pain in the hypogastrium during the night after the accident. The urine was hæmorrhagic. Recovered completely in three weeks.

In April, 1894, he noticed that his strength was poor, and observed throbbing in the epigastrium. He entered the Toronto General Hospital in June following. There was then a well-defined rounded tumor $2\frac{1}{2}$ inches distant in right part of epigastrium, just below the ensiform cartilage. The pulsation was quite expansile. The tumor could be easily grasped. There was a loud, soft bruit, audible over the tumor and in lower dorsal region. The femoral pulse was later than the radial.

He was kept in bed for three months; his liquids were reduced to ten ounces per day, but as he was anæmic and considerably emaciated he was allowed a full supply of solid food. Potassium iodide was given continuously, grains x three times a day, and 1 or 2 m. solution nitroglycerin 1 per cent. to reduce blood pressure.

By October the tumor was reduced by about one-quarter its size, was firmer and less expansile. It remained without any change all winter, and he was dismissed in May, 1895, apparently cured. He continued in good condition all summer, and in September he went to work at mattress making. In a week the distress in epigastrium returned, and he re-entered the hospital in October. No change was apparent in the old tumor, but a second had developed to the left side of it, larger and softer than the old one, and with marked expansile pulsation. There was some pain in the back, but not severe. It disappeared in two weeks.

He was treated as on the former occasion, but showed no signs of improvement. The new tumor gradually increased in size, and on November 2 he was seized with considerable pain in the epigastrium, followed after a few hours by gradually increasing collapse. He died next day.

At the autopsy the old sac was found thick at its anterior part and lined with a thick deposit of pale fibrin. The posterior wall was irregularly thickened and had a little fibrinous deposit on it. The new sac had formed from its left side. The new sac was thin, and without any deposit. A rupture had taken place at the upper part of the posterior wall of the old sac. The extravasated blood had gradually forced its way upwards behind the pillars of the diaphragm. It was enabled to do this on account of the slight erosion that had occurred on the bodies of two vertebræ. The blood found its way up into the posterior mediastinum, and then ruptured into the right pleura, which was full of clots. The aorta, where it entered the upper end of the sac, was much contracted, measuring about half an inch, and admitted only the tip of the index finger. The aorta was atheromatous.

In a similar case over two years ago rupture took place in the same situation as in this one, and the blood escaped into the right pleural cavity in the same manner. In that one no second sac had formed. He had

been in the hospital for seven months and was discharged with a smaller and hard tumor. He resumed work as a plasterer, and worked hard for about two years.

In both these cases the method of treatment by needling as practised by Macewan, if practicable, offered good ground for hope of a cure. The needles passed into the sac would reach the whole area of weakness and thus lead to the formation of white clot, just where it was needed to prevent rupture.

Dr. Greig asked if the narrowing of the aorta was not peculiar, and would it not have a favorable effect upon the course of the aneurism?

Dr. Anderson desired to know what effect the syphilis plays in the production of aneurism.

Dr. H. H. Oldright asked if the narrowing is congenital, or due to arterio-sclerosis.

Dr. McPhedran, in reply, said most of the cases he had seen gave a history of syphilis, though he had seen cases in which there was no history. He thought it gave rise to degeneration of the vessel wall. There must be some local weakening of the vessel.

Dr. Primrose presented, as a card specimen, a transverse frozen section of the thorax, showing a large cavity in the lung.

Dr. H. B. Anderson presented a specimen of

DIAPHRAGMATIC HERNIA.

This specimen was taken from the body of a man who died as the result of injuries from an accident, being struck by a G.T.R. train, dying in about one week. On the left side of the diaphragm was a large globular sac, extending up behind the lung as far as the third rib. The muscular tissue in the part of the diaphragm corresponding to the sac was entirely gone, the only muscle on the left side being a small amount in front of and to the right of the hermia.

The spleen occupied the upper part of the sac, which also contained the cardiac end of the stomach, the splenic flexure of the colon, and the upper part of the left kidney. The sac was fined by peritoneum. The right lung weighed twenty four ounces and the left weighed twenty-one, the latter ending below in a long, narrow, tongue-like process of collapsed tissue, extending down between the hernial sac and the anterior thoracic wall.

The patient had met with an accident about two years previously, the nature of which could not be ascertained. The condition in the diaphragm was evidently of long standing, and had attracted no attention during life.

Congenital malposition of the kidney.

While making a dissection of the abdominal viscera at Trinity Medical College, Mr. J. Eagleson and Mr. McKay, two second-year students,

called my attention to the fact that the right kidney was absent. On continuing the dissection no right renal artery or corresponding vein was found, but, instead, a small artery coming from the right of the abdominal aorta, about a quarter of an inch below the coeliac axis, and distributed to some adipose tissue in a position corresponding to the middle capsular artery. Later on, while cleaning away peritoneum from common iliac arteries, they found the missing kidney. It was surrounded by a thick covering of adipose tissue, and lay along the anterior surface and inner border of the right psoas muscle, in front of the common iliac artery, with its upper end slightly below the bifurcation of the aorta. The kidney was much distorted, so as to be conformed to its abnormal surroundings.

Its blood supply is a comparatively large branch from the inner side of the left common iliac, close to the bifurcation of the aorta. This vessel enters the kidney at the middle of its internal surface, whilst the vein emerges from the hilum on the outer border, and enters into the left common iliac.

The ureter is short, of usual diameter, emerges from the hilum on the anterior border, and then takes the usual course to the bladder.

The kidney was of normal size, and was surmounted by a suprarenal capsule, which receives its blood supply from a slender branch arising from the aorta.

A photograph of the kidney and its vascular supply, etc., is herewith presented.

Dr. Carveth arrived, and took the chair. He mentioned a case of misplaced kidney which was supposed to have been dragged down by an inguinal hernia.

Dr. Greig said the second case appeared to be a pouching upward of the diaphragm, rather than a perforation.

Dr. Anderson, in reply, said he called it a hernia because it was a displacement of a viscus into another cavity. Dennis classifies three forms:

- (1) Through a congenital pressure.
- (2) Through one of the normal openings.
- (3) Through rupture from accident.

He supposed his case belonged to the third variety.

Dr. E. E. King presented, as card specimens, a heart in which a needle lay in the wall of the left ventricle, the point being free in the left auricle; and a lung in which a long pin passed from side to side.

Dr. William Oldright reported a case of superfectation. One feetus was about a month, and the other appeared to be at the second or third month.

Dr. Greig asked if it might not be a case of delayed development in one fœtus.

Dr. Oldright, in reply, thought not, for both were formed.

Mr. Cameron presented three card specimens:

- (1) Ovary and tube (left). Corpus luteum of menstruation. Cyst ruptured. Clot within. Menstruation began ten days before removal, and ceased in four days. Removal on account of adhesions, menorrhagia, and dysmenorrhæa. Right ovary and tube removed one year ago for similar symptoms. Patient æt. 32; married ten years; no children; seven miscarriages, all at fifth month, except one at seventh. Uterus bicornis. Left ovary and tube intimately adherent to broad ligament and to intestine. Broad ligament on right side perfectly smooth and regular in outline. No trace of operation stump on palpation.
- (2) Uterus removed per vaginam for cancer in a patient æt. 63. Secondary deposit (or fibroid?) in fundus.
- (3) Penis removed for cancer; patient æt. 63. Inguinal glands not involved; flap operation.

Regular meeting, March 28, 1896, the president, Dr. George H. Carveth, in the chair.

Present: Drs. MacCallum, Hamilton, Wilson, W. Oldright, H. H. Oldright, Carveth, Peters, Amyot, McPhedran, Thistle, Reeve, and E. E. King.

Visitor: Dr. Sinclair, Tilsonburg.

Dr. Peters showed the following specimens:

- (t) An oxalate of lime calculus removed from the bladder by crushing. It had been passed from the kidney four years previously, there being a history of renal colic at that time. The patient was aged 63 years.
- (2) A stone, three-quarters of an inch in diameter, removed from the bladder of a female by dilatation of the urethra. The woman had suffered at least one year from the presence of the stone. At the time of the operation she was in the sixth month of pregnancy, and had considerable albumen in the urine, with also occasional glycosuria. The patient had almost no incontinence of urine after the operation, and the next day she was able to hold her urine about four hours. The stone is phosphatic in character, and the nucleus has evidently been a clot of blood or a mass of mucus, which has undergone disintegration and left a cavity in the centre of the stone.
- (5) A small oxalate of limestone (18 grs.), removed by lithotrity from a man aged 63. There is the history of an attack of renal colic four years ago, when this stone probably came down. The patient suffered severely from the ordinary symptoms of stone. Considering the length of time over which the history extends, the small size of the stone is remarkable.

(4) A loose body removed from the knee-joint Evidently a fragment broken off from the articular surface of the patella (published elsewhere).

Dr. Amyot showed a specimen of a

TUBERCULOUS KNEE.

Female, æt. 28 years. Affection of five years' standing. Pain severe, but in the head of tibia not much pain, except latterly, on moving joint. Tender points in head of tibia; atrophy above and below; no flexion. Uniform swelling of joint. No fluid. Infarcts in femur above and tibia below in head of fibula. Patella free from apparent involvement at least.

Dr. Thistle asked if bacilli had been found.

Dr. Amyot, in reply, said there was tuberculosis of the lungs in which bacilli were found, but bacilli had not been found in the joint. The examination was made, however, only after the joint had been in alcohol some time.

Dr. E. E. King showed some

TUBERCULOUS GLANDS

removed from the neck of a negress, æt. 18 years. No microscopical examination had been made. He also showed a diseased carpus from a bullet injury eighteen years ago: There was pain, swelling, and loss of motion.

The condition was supposed to be tuberculosis. The diseased area was cut into, and the carpal bones were found to be loose. The carpus was scooped out, and a bullet was found among the carpal bones.

LONDON MEDICAL ASSOCIATION.

THE regular monthly meeting of the London Medical Association for March was held in the Medical College on the 9th of the month.

Present: Dr. Meek, the president, in the chair, and Drs. Moore, Hodge, Wishart, Graham, Hobbs, Stevenson, Ferguson, Kingsmill, Hotson, and English.

Dr. Moore exhibited a rare and most interesting case of intracapsular fracture of the head of the femur, and presented the following history:

The patient, a boy aged 15 years, is a parcel deliverer; he has always been strong, and has had no serious illness. The family history is good. Six weeks previous to December 24, 1895, while skating, the lad tripped and fell heavily upon the right hip; he complained of some little soreness but moved about as usual; three days later, while skating, he again fell striking upon the same hip. For some three weeks after this he com-

plained of pain and soreness in the hip-joint, but continued to do his ordinary work, and finally it ceased.

On the evening of December 20, on alighting from a moving electric car, he alighted upon his right heel, twisted the body, and immediately fell to the ground; he hobbled to the sidewalk, and then back to the next street car that passed, and, after getting off this car, managed by stepping upon his toe to walk three-quarters of a block to his home. For four days he hobbled about the house with the assistance of a stick. No physician was consulted up to this time. Dr. Moore was called on December 24, 1895, and at once had the patient removed to St. Joseph's Hospital.

On examination, the leg was found to be one and a half inches shorter than its fellow; the hip-joint was enlarged and tender; the foot everted; temperature, 102°; traction would not reduce and keep reduced the fracture; there was no impaction; the ends of the bones would rub together, but not pass one another. A straight splint and traction to the extent of fifteen pounds was employed, but no effect was produced upon the shortening.

Our reason for exhibiting the case was that it has been stated that intracapsular fracture never occurs in childhood.

Query: Was this an impacted fracture in the first instance, and, after moving about upon the limb for six weeks, was the impaction reduced; or, was this a green-stick fracture at the time of the first fall, and made complete by subsequent accidents?

Three cases of intracapsular fracture in children were referred to which had been reported in the *Medical and Surgical Bulletin* of New York, December 15, 1895.

The case was fully discussed by Drs. Wishart, Graham, Ferguson, and the president.

Dr. Hobbs, of the London Asylum, read a most interesting report of "A Year's Gynæcological Work Among the Insane."

The members congratulated Dr. Hobbs upon the success of his work, and urged him to pursue it further.

At the February meeting the following interesting case of imperforate anus and entire absence of rectum in an infant was reported by Dr. W. M. English.

On the evening of December 24, 1895, I was called to attend Mrs. T., a woman of 40 years, who had been married twenty years.

She had been attended by an old nurse, and the child was born one and a half hours before I was called, but the placenta had been retained. After some little difficulty this was delivered piecemeal.

Previous history: This was the tenth pregnancy, and of the ten children three only were now living; she had two miscarriages at four and six months, respectively, and two stillborn at full term.

The present infant was small and poorly nourished, but upon casual examination appeared to be perfect.

The nurse reported all doing well until the third day, when complaint was made that the infant was vomiting everything that was taken, and that there had been no movement of the bowels since birth. On examination the anus was found to be absent, and there was entire absence of any elevation or depression, or any indication of an outlet.

I at once made an incision in the median line, commencing at the coccyx, and cutting forward one inch, and one and a half inches deep, but could find no trace of a rectum, though the wound was deepened to two inches.

Thinking that enough had been done for one day, and fearing that the infant would not survive the day, I postponed further operation for twenty-four hours; then on the succeeding day I performed colotomy in the left loin by oblique incision, commencing three-quarters of an inch from the spine and forward two inches; the peritoneal cavity was unfortunately opened; the bowel was easily secured, and found to be filled with meconium. After fastening it securely to the sides of the incision, the bowel was opened longitudinally, and the meconium escaped.

The infant survived five hours, and died without having a free discharge of the bowels through the wound.

The regular monthly meeting of this society was held on April 13, Dr. Meek, president, in the chair.

Dr. J. B. Campbell read an exhaustive paper on "Angina Pectoris," discussing the etiology, symptoms, and treatment of the disease. As to etiology, the views of writers were confusingly divergent. He cited four cases in his own practice which he thought were typical of the classes of cases met with in general practice, viz., the neurotic, emotional, hysterical, and organic cases. The first case was that of an elderly man with a sensitive, nervous organism, kept under control except when the occasiona angina asserted the inability of the heart innervation to withstand some special strain or tension; the second case, that of a sturdy but excitable politician, who, on the occasion of a heated and angry controversy with an opponent, was suddenly seized with a violent attack of angina pectoris; the third, a typical neurasthenic, in whom the ordinary attack of hysteria sometimes merged into a violent seizure of angina. These three forms, he said, are predominated by nerve impulses, and yet are so distinct in type that their etiology, if thoroughly understood, would, doubtless, relegate each to a distinct class. The fourth case was one in which the recurring attacks were due to organic disease of the heart. Organic cases admitted of scientific diagnosis, and rational, though not always effective, treatment. Nitroglycerin he found the most generally serviceable remedy

for treatment in the intervals, with amyl nitrite to relieve attacks. Valerianate of ammonia in neurotic cases, and iodide of potassium in atheromatous conditions, he had also used with fair results.

Dr. Graham had found in a country practice that the aged, broken down by hard labor, were specially susceptible to angina pectoris.

Dr. Eccles had observed that, in a patient to whom he had given nitroglycerin continuously for nine months, a tolerance of the drug was created, the frontal headache did not accompany its use, and the patient's nutrition was markedly improved.

Dr. Jento recalled a case in which the patient was relieved of her angina coincident with the expulsion of a uterine cast (membranous dysmenorrhea).

Dr. Gardiner's experience was that true angina pectoris was most frequently due to cardiac dilatation, and he had always found the application of the old-fashioned mustard plaster a good sedative and regulator of the disordered cardiac mechanism.

Dr. Ferguson was treating a case of gastric dilatation in which attacks of angina were induced apparently by flatulent distension of the stomach, causing pressure upon the distribution of the phrenic nerve to the diaphragm, and interference with the movements of the heart.

Dr. Jento reported a case of dislocation of the femur on the dorsum ilii, which he reduced twelve and a half weeks after the occurrence of the accident by pulley traction, after failure to reduce by manipulation. The case had been treated for two months before he saw it for fracture of the head of the femur. He found the thigh slightly flexed, abducted, and everted. Fixation splints, with rest, was the after-treatment for four weeks; then the patient went about on crutches. In two months he could walk without the aid of a cane, and in six months he resumed his ordinary work.

Dr. Campbell had never found manipulation of service in reducing dislocations.

Dr. Wishart thought the mode of reduction depended altogether upon the kind of dislocation. Dislocations of the shoulder, for example, were not generally reducible by manipulation, as the movable scapula did not afford leverage for manipulation. Regular dislocations of the femur, however, were effectively reduced by manipulation. The eversion of the foot in Dr. Jento's case showed that the dislocation was irregular, and that there was rupture of the ilio-femoral ligament. In that case the leverage afforded by the ligament was wanting, and, consequently, manipulation would have been unavailing, even if the dislocation were recent.

ONTARIO MEDICAL ASSOCIATION.

The following is an incomplete list of papers to be presented at the coming meeting of the Ontario Medical Association at Windsor, June 4-5:

MEDICINE.

Treatment of Phthisis—A. J. Geikie, Toronto; Geo. Hodge, London; W. B. Thistle, Toronto.

Diphtheria—C. R. Charteris, Chatham.

The Rational Treatment of Typhoid Fever-J. P. Armour, St. Catharines.

The Differential Diagnosis of Typhoid Fever—G. R. Cruickshank, Windsor.

SURGERY.

Operative Treatment of Carcinoma—W. Burt, Paris; A. B. Welford, Woodstock; G. T. McKeough, Chatham.

OBSTETRICS.

Case of Pregnancy Complicated with Retroversion of the Uterus—Alexander Bethune, Seaforth.

Treatment of Abortions-G. T. McKeough, Chatham.

Treatment Puerperal Sepsis—H. T. Machell, Toronto G. Acheson, Galt; H. Meek, London.

Occipito-Posterior Presentations-A. A. Macdonald, Toronto.

Missed Abortion-F. R. Eccles, London.

MISCELLANEOUS.

(a) Tongue-like Lobes of the Liver, (b) Erythema Multiforme—A. McPhedran, Toronto.

Anæsthetics--Dr. Scadding, Toronto.

Skin-Grafting (with case)—R. Whiteman, Shakespeare.

The Total Stamping out of Transmittable Diseases—A. Groves, Fergus.

Hæmoptysis-J. M. Cotton, Lambton Mills.

Mitral Diseases in Pregnancy—C. J. O. Hastings, Toronto.

Roentgen Rays-E. E. King, Toronto; N. A. Powell, Toronto.

Conservative Surgery of the Eye-R. A. Reeve, Toronto.

General Infections Produced by Certain Pathogenic Bacteria, Generally Associated with Local Lesion—H. B. Anderson, Toronto.

Report of Surgical Cases—T. K. Holmes, Chatham.

Phthisis in the Insane—E. H. Stafford, Toronto; E. E. Harvey, Norwich; Victor C. Vaughan, Ann Arbor, Michigan.

Mixed Infections-John Caven, Toronto.

Book Reviews.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third Series. Vol. xvii. Philadelphia: Printed for the College. 1895.

This volume of Transactions contains nineteen papers read before the college during the past year, together with the Jenks' prize essay on "Infantile Mortality during Childbirth, and its Prevention." The volume forms a most valuable addition to current medical literature. The papers are on various topics, and will be read with great interest by practitioners, whether general or special.

AN ESSAY ON MALARIA AND ITS CONSEQUENCES. By Robert Lindsay, A.M., M.B., F.R.C.S.E., retired surgeon Army Medical Department London: H. K. Lewis.

This book of 116 pages is neatly gotten up by Lewis, and reflects credit on the publisher. The author has evidently never heard about the plasmodium malaria, and advances some absurd views about poisoning with carbonic acid gas as being the cause of malarial fevers. In these days, when so many really valuable books are issuing from the press, it would hardly repay one to waste time perusing this work. We hardly expect a second edition will be called for.

INDEX OF MEDICINE. A manual for the use of senior students and others. By Seymour Taylor, M.D. Philadelphia: Lea Bros. & Co. 1894.

In this manual there are 800 pages, those devoted to the diseases of the vascular system being, in our opinion, most clear and worthy of study. We have always held that manuals are of questionable value to students, and that they may encourage superficiality in medical study. We believe that students who have read the text-books faithfully can review them for the purposes of examination with greater facility and profit than they can a manual hitherto unknown to them.

Though in many respects this Index of Medicine is a desirable book, yet in the matter of treatment, in some instances, it is not "up-to-date."

A TREATISE ON THE MEDICAL AND SURGICAL DISEASES OF INFANCY AND CHILDHOOD. By J. Lewis Smith, M.D., Clinical Professor of Diseases of Children, Bellevue Hospital Medical College, etc., etc. Eighth edition, revised and enlarged. Lea Brothers & Co., New York and Philadelphia. Pp. 987; illustrations, 273; plates, 4.

This well-known work has been largely rewritten and much enlarged. It contains, in addition to what is usually embraced under the term "diseases of

children," valuable chapters on the commoner surgical affections of children. The surgical portion is from the pen of Prof. Stephen Smith, of New York. In this portion of the work diseases of the joints, spine, and osseous system are fully considered, also malformations and deformities. The final section of the book is devoted to diseases of the skin. A useful addition to this section is an indexed formulary.

Altogether, the book is much improved, and can be highly recommended, as it presents, in fairly concise form, a vast amount of information and the most recent ideas concerning affections peculiar to childhood, whether within the domain of medicine or surgery. The illustrations and style of the book leave nothing to be desired.

THE FUNCTIONAL EXAMINATION OF THE EVE. By John Herbert Claiborne, Jr., M.D., Adjunct Professor of Ophthalmology, New York Polyclinic; Instructor in Ophthalmology in the College of Physicians and Surgeons, New York, etc.

Amongst the large number of useful books upon the "Eye," we think this one will find a place. It treats only of the functional examination of the eye, with reference to the determination of refraction and the necessity for wearing glasses. The author calls special attention to the chapter on Presbyopia, and remarks that to judge from the frequency with which glasses are prescribed for this condition by totally ignorant people one might imagine it to be a very simple affair. As a matter of fact, he says, it is the most difficult problem in refraction, and a thorough knowledge of it implies a thorough knowledge of all the anomalies of refraction.

The whole book is carefully written, and though, of course, strictly technical terms are used, still it can be followed easily enough by the general practitioner. This is as interesting a work on this rather tedious subject of refraction as has yet appeared, and we think it should be well received by practitioners at large.

"A TREATISE ON SURGERY." For students and practitioners. By American authors. Edited by Roswell Park, M.D., Professor of the Principles and Practice of Surgery and of Clinical Surgery in the Medical Department of the University of Buffalo, Buffalo, New York. In two large and very handsome royal octavo volumes, copiously illustrated with engravings and full-page plates in colors. Lea Brothers & Co., New York and Philadelphia.

The early publication of Park's "Surgery by American Authors" will place in the hands of students and practitioners a work thoroughly reflecting the science and art of surgery in its most modern and cosmopolitan development, and fitly sustaining the honorable position universally accorded to America in the surgical world. The editor's recognized eminence has brought him the willing co-operation of gentlemen of the highest ability and experience, and his accurate acquaintance with their special lines of distinction has been skilfully utilized in the assignment of subjects, so that the work as a whole will be regarded as a production of the highest authority.

In point of richness and beauty of illustration Park's "Surgery" will mark a departure in surgical literature, the engravings and colored plates being largely original, and introduced wherever clearness and fullness of information can be aided by pictorial effect.

To attain the utmost convenience in use, the work will be divided, in accordance with the most modern views, into two volumes, one of which will deal with Surgical Pathology and General Surgery, and the other with Regional and Special Surgery. The advantages of this plan are too obvious to need presentation.

The following authors contribute to the work: William T. Belfield, Herbert L. Burrell, Edward H. Bradford, Arthur D. Bevan, Clarence J. Blake, Charles Stedman Bull, D. Biyson Delavan, Frederic S. Dennis, Duncan Eve, James H. Etheridge, John A. Fordyce, Frederic H. Gerrish, Arpad G. Gerster, Hobart Amory Hare, William A. Hardaway, James M. Holloway, Charles B. Kelsey, Robert W. Lovett, Rudolph Matas, Henry H. Mudd, Charles B. Nancrede, Roswell Park, Charles D. Paiker, John Parmenter, Joseph Ransohoff, Maurice H. Richardson, Chauncey P. Smith, Edmond Souchon. Lea Bros. & Co., Publishers, Philadelphia and New York.

CONSUMPTION: ITS NATURE, CAUSES, AND PREVENTION. With an outline of the principles of treatment for all classes of readers. By Edward Playter, M.D., M.C.P. and S. Ont., author of Playter's Physiology and Hygiene (authorized by the Ontario Education Department), editor of the Canada Health Journal, etc. Toronto: William Briggs, Wesley Buildings.

Dr. Playter, the author of this very instructive and interesting book, is well known throughout Canada as an authority on hygiene and kindred subjects in medicine. He considers consumption as slightly infectious, largely preventable, and frequently curable. We quite agree with his remarks on these points, especially as to the curability of the disease, and would like to see general practitioners endowed with greater faith in their theraupeutic resources while they are treating it. After describing the physiology of the lungs, the author goes on to discuss the nature and causes of consumption. He devotes a number of chapters to causation, considering the subject from various points of view. He accepts the opinion that phthisis cannot develop without the tubercle bacillus, but thinks the bacillus can only produce the disease in "specially conditioned body tissues." He attaches great importance to the powers of resistance which exist in the healthy organism. The "predisposition" to consumption which exists in certain persons may be either inherited or acquired. In Part II. he discusses the very important subject of prevention, and advises strict attention to minute details relating to certain essentials pertaining to health, which enable the human body to successfully struggle against invading germs. He considers the measures of prevention under three heads: (1) Ordinary essentials of health—pure air, proper food, cleanliness, etc; (2) Special methods for those who have inherited or acquired a predisposition to the disease; (3) Methods for those in the early stages of tuberculosis. III. he discusses the treatment of consumption in a general way, without going

into special details. If preventive methods have been defective or ineffectual, and tubercle has actually been formed, he considers there is no specific remedy for the disease. In such cases the functions of digestion and assimilation have been disturbed, and each patient requires careful treatment, suitable to his own conditions.

As the title page indicates, this book has been written for all classes of readers, but it is certainly a very valuable work for a general practitioner in medicine. The style of writing is clear, and almost entirely free from technical terms. When, however, technical terms have been used, the author always takes care to give an explanation in *plain English*. We have much pleasure in recommending this treatise on consumption to those for whom it was intended—"all classes of readers."

TAYLOR ON VENEREAL DISEASES. The Pathology and Treatment of Venereal Diseases. By Robert W. Taylor, A.M., M.D., Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, New York. In one very handsome octavo volume of 1002 pages, with 230 engravings and 7 colored plates. Cloth, \$5.50; leather, \$5.50. Philadelphia: Lea Brothers & Co., Publishers, 1805.

The above work is one of the most praiseworthy publications that we know of. It is up-to-date in all branches of the subject treated, and the opinions expressed are not only the personal opinions of the author, but also are a resume of the most advanced opinions of experts in this particular line of study. The study of venereal disease is altogether too cursory, and too little allusion is paid to it in a great many of the medical schools. The high standard of this work makes it more valuable therefore on that account. None better than Dr R. W. Taylor could be found on the continent to write such a volume. He has had most unique advantages to closely study venereal disease and syphilis, and no trouble has been too great for him to undertake to thoroughly master their intricacies.

The introduction to the volume gives a very concise review of the many controversies between the dualists and unicists.

The main body of the work is divided into three parts:

The first part is devoted to gonorrhoa and its sequelæ. Taking up first the anatomy and physiology of the parts implicated, we cannot quite agree with the author that gonorrhoa can originate other than by gonococci, but are at one with him that other cocci may produce an inflammatory condition, but in our experience it is nothing like as virulent as true gonorrhoa.

The chapters devoted to stricture and its treatment are pregnant with sound advice. We also believe that too much cutting is done, much less in this day than a few years ago, but still too much. Gradual dilatation, properly done, is a treatment that will give good results in most cases. As the author says, fibrous and nodular stricture require the judicious use of the knife.

The second part is devoted to chancroid. Here we are introduced to Dr. Bumstead and the author's investigations into chancroid in 1876, and he still claims that it has a specific virus. We believe that yet a specific bacillus will be isolated.

In the third part syphilis and its ravages are considered. The history of syphilitic infection and treatment are most thoroughly referred to. Excision of the initial lesion is not given as much prominence as we would like to see given to it. The pros and cons are not given in that free manner that we think they should be. We have shown that the coat-sleeve arrangement of the cells around the blood vessels is not pathognomonic in syphilis, and we do not agree with the assertion that "the utter futility of aborting syphilis by excision of its initial lesion will be seen." We have the treatment of syphilis we are at one with the author, and in the volume it is indeed placed in the most simple yet exhaustive manner.

The volume consists of over one thousand pages. The illustrations and colored plates are superior to most works on this subject, and a large number of them are original for the volume. The typography, paper, binding, etc., are a credit to the firm of Messrs. Lea Brothers & Co., and Dr. Taylor should be congratulated on having secured such liberal-minded publishers.

Dr. A. Brothers, of New York, in the December number of the American Journal of Obstetrics, reports two cases illustrating the advantage to be derived from the Trendelenburg position in the treatment of prolapsed umbilical cord. An improvised incline is secured by turning an ordinary cane chair upside down on the bed and covering it with a pillow and sheet. The cord is seized by the hand and pushed back into the uterine cavity, and a piece of sponge previously boiled placed bet veen the presenting part and the pelvic wall. The advantages of this position seem to be (1) greater comfort to the patient than in the knee-chest position; (2) slight increase in the antero-posterior diameter of the pelvis; (3) ease with which cord can be replaced and kept back with a fairly large piece of sponge, placed between the presenting part and the pelvic wall; (4) the ease with which the presenting head may be pushed up and a leg brought down; (5) the short time in which version may be done.

THE "MONIST."—The April Monist opens with two articles on Roentgen's "X" rays by leading European scientists. Prof. Ernst Mach, of Vienna, describes a method of applying the new rays to an old device invented by him for taking stereoscopic or solid pictures of objects. Professor Schubert, of Hamburg, writes at length on the "X" rays, reviews in simple language their history, embracing the researches of Faraday, Geissler, Hittorf, Pluecker, Crookes, Lenard, and Roentgen; discusses the physical character of the rays; and, lastly, expounds the methods of work so successfully employed in the Hamburg State Laboratory.

Edward Atkinson, of Boston, practical financier and economist, writes a timely article on "The Philosophy of Money." A well-known Polish philosopher, W. Lutoslawski, of Kazan University, Russia, makes his début to the American public in a striking and original article, "In Search of True Beings," wherein he describes the philosophy of Polish individualism.

Remarkably fine is the contribution "From Animal to Man," by Professor Joseph Le Conte, of Berkeley, California. Professor Joseph Le Conte is one

of the foremost scientists and thinkers of America, and his work has all the marks of high native talent and broad scientific culture. Professor J. Clark Murray writes on "The Dualistic Conception of Nature," which depicts clearly and tersely the fortunes of dualistic notions both in philosophy and religion. More profound and technical is the article "Nature and the Individual Mind," by Prof. Kurd Lasswitz, a noted German philosopher.

The last article is a discussion of "The Nature of Pleasure and Pain," by Dr. Paul Carus, with particular reference to the theory of the famous psychologist, Prof. Th. Ribot.

The usual Literary Correspondence from foreign countries and a rich selection of book notices, etc., conclude this number, which takes equal rank with the brilliant numbers that have preceded it, and on which have appeared the names of Weismann, Ribot, Topinard, Lombroso, Romanes, and Lloyd Morgan. Single copies, 50 cents; annually, \$2.00. The Open Court Publishing Co., Chicago and London.

Medical Items.

DR. A. W. MOODY has been appointed superintendent of the General Hospital at Winnipeg.

DR. RICHARD A. REEVE has been elected Dean of the Medical Faculty of the University of Toronto.

DR. J. ALGERNON TEMPLE, of Toronto, started on a trip to Great Britain and the Continent May 14.

DRS. NEW, Stevenson, English, and Belton have been appointed on the staff of the London General Hospital for the summer months.

DR. G. STERLING RYERSON, of Toronto, reached London, England, May 10. He expects to return to Canada about the middle of June.

DR. HOBBS, of the London Asylum for the Insane, has gone to New York to spend some weeks among the hospitals there as a further preparation for the continuance of his gynecological work among the insane.

DR. W. H. B. AIKINS, at a regular meeting of the Senate of the University of Toronto, held in April, was elected a member of that body in the place of the late Dr. Laughlin McFarlane, the vote standing 19 to 10.

THE CLUB DOCTOR,—Labor leaders may say what they will, the struggle for existence is keenest by far in the ranks of the professional class. Go lower. and you will rarely find the determined stand against contending odds which. for instance, the struggling doctor makes to earn a wretched living for himself and family. Few follow in Dickens' footsteps and write the quaint, pitiful romance of the shabby genteel, and yet there is infinite pathos in their sad efforts to keep the wolf from the door and their heads above the social slough into which Mrs. Grundy is longing to plunge them. Club doctors are the slave class of the medical profession. For a fixed salary of, at most, £100, they are bound down to a slavery from which there is no respite day or night. The members of the club may number some eight or nine hundred, and some of these or their families are in constant need of medical attendance. Ever at their beck and call, summoned on the most trifling occasions, their doctor must tramp the streets at all times and in all weathers. His bell is always jangling, and he comes home only to set out again. Backward and forward he plods along the grimy streets of the wretched suburb where his practice lies, passing only from one scene of squalid sickness to another, and forced to use his poor remedies where rest and generous diet are alone needed. All the year round he keeps at his work with a desperate, pathetic courage; he dares not leave it, for he is never without rivals ready to take his wretched clients from him, and he is far too poor to pay a substitute. No wonder that nature sometimes takes her revenge for an overworked body and exhausted brain, and that the club doctor finds his hands and head at fault, and takes a life where he has saved thousands. If he were but an overworked signalman, a thousand voices would cry "Shame!" But he is only a doctor, and has no right to share the mortal weakness he must cure in others. Ruin and disgrace will be his portion, and the scathing comments of the public press on his "criminal carelessness" will block his way to gaining a living by his profession for the future.—St. James Gazette.

ECCHYMOSES FROM NATURAL CAUSES.—It is now a well-recognized fact that more or less considerable extravasations of blood may take place beneath the skin or of the mucosæ, or on to the surface of the internal viscera, from purely physiological causes, giving rise, however, to appearances which might easily be mistaken for the results of violence in some form or another. The possibly natural origin of such ecchymoses seems only to have been recognized within the last decade or two, and this fact suggests some uncomfortable thoughts concerning probable injustice to accused persons in the past. When a certain French medico-legal authority first called attention to petechial ecchymosis on the surfaces of the lungs, it was for the purpose of promulgating the view that they afforded evidence of death from suffocation in one or other of its forms. This has since been proved not to be the case, for they have been met with in connection with the action of particular poisons, particularly those belonging to the benzine series, as well as after death from burns, etc. Although these extravasations thus lose the diagnostic value which had been attributed to them, the subject is one well worthy of attention in order that full light may be thrown upon the mechanism of their production. For instance, they are not unlikely to occur in the insane, and in this event their presence on the skin would not unnaturally give rise to unfounded suspicions of violence at the hands of the attendants. In a paper dealing with this subject at a recent meeting of the Royal Medical and Chirurgical Society, Dr. Lediard laid particular stress upon the possibility of such ecchymoses on the mucous membrane of the vulva and vagina leading to the presumption of rape. Their position in the body, their delicacy of structure, and their vascularity render this portion of the female anatomy peculiarly liable to exhibit punctiform ecchymoses in virtue of the same causes that determine their appearance elsewhere. Hutchinson quoted a striking instance of the production of extensive ecchymoses in an elderly gentleman as the result of an attack of whooping cough contracted from his grandchild As any medical man is liable to be called upon to discharge the delicate and responsible functions of medical assessor in criminal cases, it is highly desirable that a knowledge of this curious phenomenon should be widely disseminated, for it is not difficult to imagine various circumstances in which these ecchymoses would probably be ascribed to violence or asphyxia, instead of to their real cause, whatever that might be in the particular case.—Medical Press and Circular, February 12, 1896.

A SURGEON'S EYE .- The human eye has many unspeakable gifts, some of which unmistakably add to its attractiveness, and some do not. Our readers will probably be interested to learn what a surgeon at a large London hospital thinks of the eye which distinguished a late colleague, whose personality has often been the subject of admiration. In an able, thoughtful "In Memoriam" notice of Sir William Savory, contributed to the new volume of "St. Bartholomew's Hospital Reports," Mr. Howard Marsh writes as follows: "His (Savory's) eve was pale blue, inclining to be gray. Its general expression was that of calm intelligence, but it was singularly expressive, and its range of expression was remarkable. It is a truism to say that the eye often discloses the whole man, and that the more remarkable the man the more telling is the eye. Savory's eye was clear, steady, and alert; it seemed to give a pledge more binding than any words; it could be eloquent in thanks, it could convey generous approval. These were its quiet moments. But in an instant it became all aglow, and expressive, as the occasion ruled, of keen attention, intense amusement, or blank incredulity; or it would cloud over and darken, and launch a sudden ultimatum. Steele, in the Spectator, tells us that he has seen an eyebrow call a man a scoundrel. Savory's eye, at all events, till years brought larger tolerance and restraint, not only pronounced sentence, but it passed on to slay the enemy where he stood." All old Bartholomew's men who were students in Savory's time will appreciate the truths contained in these remarks. The slaying process was one which was not infrequently seen. The scene was usually the operating theatre, and the time Thursday afternoons, when the consultations were held. Savory was, perhaps, intolerant of any diversity of opinion when it applied to himself. There were occasions at these consultations when his opinion was entirely in a minority, the minority being represented by himself. It was then that the slaying process was displayed in the fullness of its power. Like a flock of sheep, as it appeared to Savory, colleague after colleague would reiterate with worrying monotony the opinion expressed on the case by the senior colleague who spoke first. At last the most junior colleague on the staff would give his verdict in the same terms, and then it was that the color would come and go in Savory's face, that the eyes would flash, and the trembling features show the tumult of his feelings. These were sights for students to see and remember, and they have been vividly recalled by the description quoted above from Mr. Marsh's notice. Still, Savory was a worthy successor of Lawrence, and the power that he swayed was, perhaps, equally as great. But with him there died the regime of mannerism of which the model and type was Lawrence.

DR. T. J. NORMAN KING has been appointed associate coroner for the county of York.

DR. SAMUEL STEWART, of Thamesville, associate coroner for the county of Kent, in the place of Dr. G. A. Tye, deceased.

DR. HARRY S. MARTIN, of Erin, associate coroner for the county of Wellington, in the place of Dr. Henry McNaughton, deceased.

DR. ROLAND K. KILBORN, associate coroner for the county of Frontenac, in the place of Dr. H. J. Saunders, deceased.

OBITUARY.

ROBERT MCGEE, M.D.—Dr. McGee practised in Midland for a time; but on account of poor health went, about six months ago, to El Paso, Texas, where he died, April 10, 1896. The body was brought to Collingwood for burial.

JOHN SANGSTER ATKINSON.—Dr. Atkinson, son of the late William Atkinson, of Hamilton, died on Monday at the residence of his brother-in-law, Lieut.-Col. Moore, of Hamilton, where he had been visiting. Deceased had been practising his profession for a number of years at Gananoque, but some months ago, owing to failing health, he went to Hamilton.

Francis Rae, M.D.—Dr. Francis Rae died suddenly at his home in Oshawa on Friday morning, May 8, from apoplexy. He was seized with pair in his head about 7 a.m., and proceeded to bathe it with cold water. He soon became profoundly depressed, sank rapidly, and died in about two hours. He was born in Stouffville, and received his medical education in the Toronto School of Medicine. During his college life he spent a good portion of his time in the office of Dr. H. H. Wright. He graduated in the University of Toronto in 1865, and commenced practice in Oshawa during the same year. He was for several years a partner of the late Dr. McGill, and always did a large practice until a few weeks ago, when he was appointed registrar of Ontario county. His friends were highly pleased with the appointment, and fondly hoped that Dr. Rae would live for many years to enjoy a comparative rest after thirty years of very laborious work.

To the large number of intimate friends who knew him as "Frank Rae," the sad news of his death was a great shock, and produced the most profound sorrow. He was loved—not liked—by his intimate associates, in and out of the profession. He was without doubt the most popular man that ever lived in Oshawa. He was reeve or mayor of the town for so long a time that he was known as "our perpetual mayor." He was an active Reformer in politics, and contested South Ontario in the general election of 1887. He was defeated, notwithstanding his great personal popularity; but it was generally conceded that he was the strongest man of his party in the riding. He was prominent in many societies, including the Masonic body and the Independent Order of Oddfellows. He was also surgeon of the Ontario Battalion of Infantry for many years. He was generally recognized as one of the leading physicians in Ontario, and was for fourteen years one of the most earnest and active members of our Provincial Board of Health.