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INTESTINAL OBSTRUCTION FOLLOWING OPERATION IN  
WHICH THE PERITONEAL CAVITY IS OPENED.\*

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BY GEORGE H. ROHÉ, M.D.,

CATONSVILLE, Md.

Fellows of the American Association of Obstetricians and Gynecologists :

PERMIT me to here formally express my appreciation of the honor done me in electing me to the distinguished position of your presiding officer. I am not conscious of having done anything to merit this high distinction, and can only attribute your action to personal friendship. For the honor I give you my heartfelt thanks.

I may congratulate the association upon the excellent prospects of the present meeting. The rich and varied programme before you shows that our indefatigable secretary has not allowed the Fellows to rest upon laurels achieved in the past, but has stimulated them to continued work. The entertainments offered by our generous hosts are sufficiently numer

\*The President's address before the American Association of Obstetricians and Gynecologists, September 20th, 1894.

ous and diversified to satisfy the tastes even of those who might come for diversion only. Happily, however, we have none such in this association. Our resident Fellows in this beautiful city had prepared such an elaborate festival programme that the Executive Council, in the interest of science, was compelled to cut it down to a point which would leave *some* time for the reading of papers and the discussions.

Early in the present year an invitation was received through our Honorary Fellow, Dr. August Martin, Secretary of the Berlin Obstetrical and Gynæcological Society, requesting the attendance of an official delegate from this association at the celebration of the fiftieth anniversary of the founding of the Berlin society. By a vote of the Executive Council the president was appointed as your representative, and attended the meeting in Berlin in May last. The courtesies extended by the Berlin Society were extremely cordial and graceful, and the action of this association in accepting the invitation was warmly appreciated. I was highly gratified to find that the work and the workers of this association are fully recognized and admired by our European colleagues.

While we have reason for gratification at the constant accessions to our ranks, we have to mourn this year the passing of one of our founders, Dr. Hampton Eugene Hill, of Maine, and of two of our most distinguished Honorary Fellows, Dr. Alexander Dunlap, of Springfield, O., and Dr. Arthur Wellesley Edis, of London.

Dr. Dunlap was a veteran abdominal surgeon. Those who, at our Cincinnati meeting, had the privilege of hearing his own account of his first ovariectomy, done just fifty-one years ago,\* can appreciate what courage was necessary in those days to open the abdomen.

Dr. Edis was well known to us all through his admirable manual on the "Diseases of Women" and other publications on gynæcological subjects. He also held, at one time, the distinguished position of president of the British Gynæcological Society.

Dr. Hill was a founder and enthusiastic Fellow of this association. He was a modest gentleman and a fearless and ready surgeon, fulfilling the demand of Dr. Dunlap, that a surgeon must be a man who can always "keep himself perfectly calm and his mind free from excitement under all circumstances." Those who have heard Dr. Hill relate his experiences in abdominal surgery realize that he was such a man. His record, perhaps unique, of twenty-five recoveries in the first series of twenty-six operations, is one that all of us who are less gifted and less successful may well envy.

The temptation is strong to linger over the details of these noble lives and draw from them lessons to guide and uplift us who remain, but this is a duty that must be left to others more competent.

The choice of a subject upon which to address you from the chair has

\*September 17th, 1847.

been difficult. Not, indeed, from a paucity of topics demanding discussion, but from a feeling that any attempt on my part to offer *ex cathedra* opinions would be presumptuous. I may be pardoned, however, for briefly drawing your attention to the frequent occurrence of

INTESTINAL OBSTRUCTION FOLLOWING OPERATIONS IN WHICH THE PERITONEAL CAVITY IS OPENED.

Obstruction of the bowels causes between 1 and 2 per cent. of the deaths following ovariectomy and other operations involving opening of the peritoneal cavity. Sir Spencer Wells lost 11 out of his first series of 1,000 cases of ovariectomy from this cause (1.1 per cent.). Fritsch<sup>1</sup> places his mortality from ileus post-laparotomiam at 1.6 per cent. Klotz<sup>2</sup> has reported 31 cases of intestinal obstruction with 5 deaths due to this complication in a series of 421 abdominal sections and 148 vaginal extirpations of the uterus. I have been able to collect in the literature and from personal communications no fewer than 75 deaths from this cause. While this number seems large, it probably represents less than half of the deaths properly attributable to this accident, for there can be no doubt that not a few fatal cases of peritonitis and intractable vomiting after laparotomy are really cases of obstruction of the bowels.

Secondary or post-operative intestinal obstruction may be roughly divided into two classes of cases, one due to mechanical causes—adhesions, peritoneal bands, volvulus, accidental fixation by sutures, etc., and perhaps compression in exudation masses—and another due to paralysis of peristaltic movement of the intestines following sepsis or injury to the nerve supply of the muscular coat. The obstruction may be acute—*i. e.*, occur immediately after or within a few weeks subsequent to the operation—or it may develop gradually, and not become complete until months or years afterward.

The majority of cases in which the cause of the obstruction was ascertained by operation *intra vitam* or by necropsy have been found to be due to abnormal fixation of the intestines by adhesions, or to compression by peritoneal cords or bands inflammatory in origin. The statement is attributed to Olshausen that obstruction after ovariectomy is always due to adhesions between the bowel and the pedicle. A striking instance of this form is related by Sir Spencer Wells.<sup>3</sup> I have, however, observed a case in the practice of the late Prof. Erich, of Baltimore, where the small intestine was doubled upon itself and so firmly adherent that the gut was entirely impervious. Similar cases have been reported by Skutsch<sup>4</sup> and G. M. Tuttle<sup>4</sup> after the removal of the uterine appendages. Adhesions of a knuckle of bowel to the abdominal incision or to other portions of the abdominal wall have frequently been found to be the cause of the

obstruction, the abnormal fixation causing acute flexure of the intestinal tube. Any hindrance to the passage of the contents of the bowel at the point of flexure causes dilatation above and consequent increase of the degree of flexion. When this occurs there is at first increased peristalsis, but if the obstruction is not soon overcome the circulation is interfered with, dilatation of the bowel with paralysis of its walls follows, and the anatomical picture of the obstruction is complete.

Sir Spencer Wells<sup>5</sup> illustrates another form of obstruction in which a coil of small intestine sinks into Douglas' cul-de-sac and becomes fixed there by adhesions. Krug has reported a case in which the descending colon was found glued fast at an angle to the posterior surface of the uterus.<sup>6</sup> Our distinguished Fellow, J. F. W. Ross, has reported a case where obstruction occurred five weeks after a complete abdominal hysterectomy. "After death it was found that a small portion of intestine had become adherent to the abdominal incision behind the edge of the omentum, and that another loop had slipped through above this adhesion between the bowel behind and the abdominal wall in front, and had thus become obstructed." Secondary operation, which would doubtless have given relief, was advised, but was rejected by the friends of the patient.

Fritsch mentions a case where a fold of the bowel was caught under a suture, and another in which the bowel was found in the incision between two sutures. He thinks the bowel was forced between the separated edges of the incision during retching and vomiting. I should not have believed this possible had I not seen how widely apart sutures are placed by some of our European colleagues. Sir Spencer Wells "heard of a case where a coil of intestine slipped through one of the loops of wire used as sutures for the wound, and was tightly compressed when the wire was fastened." Our Fellow, Joseph Price,<sup>7</sup> quotes an interesting case from Louis, where an adherent ovarian cyst, emptied by the trocar, so dragged upon the bowel as to cause obstruction. The opinion is expressed by Price that some cases of obstruction post-laparotomiam are due to leaving old bowel adhesions undisturbed at the time of operation. Fritsch seems to lean to a similar view. My friend, Prof. B. B. Browne, of Baltimore, has recently given me the particulars of a case occurring in his practice, in which death ultimately resulted from an obstruction undoubtedly present before operation. The symptoms in this case pointed to bowel obstruction, but an acute inflammatory condition of the uterine appendages was found which was believed to account for the symptoms. Some days after the section evidences of obstruction presented themselves and led to a secondary operation. Some adhesions were found, which were released, and the patient improved. She subsequently died, however, and on post-mortem examination the bowel was found swung over an old peritoneal cord, causing

sufficient obstruction to obliterate the lumen of the gut. I. S. Stone, Fellow of this association, has quite lately reported a similar case.<sup>8</sup> Lauenstein<sup>9</sup> has described in an interesting manner the varied and curious forms assumed by intestinal and omental bands and adhesions, and has indicated the only rational method of treating them.

Among the cases of constriction by peritoneal bands, one related to me by Dr. Charles Jacobs, of Brussels, deserves to be mentioned. Here the constricting band consisted of the elongated adhesion between the uterus and anterior abdominal wall following ventrofixation.

Some cases have been observed in which the obstruction was due to an internal hernia through an opening in the omentum. Skene Keith reports a somewhat apocryphal case in which obstruction was produced by an epiploic appendix passing through one of the side holes of a drainage tube. After removing the tube the obstruction was relieved.

Volvulus sometimes occurs after abdominal section, but probably after some previous adhesion or constriction of the bowel. Two cases reported by Nieberding<sup>10</sup> illustrate this. In one case a fatal volvulus of the small intestine occurred after an ovariectomy. During the operation a portion of adherent omentum was excised, and at the post-mortem examination it was found that the raw surface of the omental stump had become adherent to a loop of the small intestine and that a volvulus existed above the point of fixation. In another case, in which the omentum was very short, symptoms of acute obstruction set in on the second day. Ordinary treatment being of no avail, the incision was reopened and a coil of intestine found adherent to the margin of the wound. After separating this a volvulus was found, which was untwisted. The patient subsequently died of peritonitis, which the reporter attributed to the obstruction.

There seems no question that by far the larger proportion of cases of post-operative intestinal obstruction are due to adhesions of the intestines to each other, to the abdominal walls, or to other viscera. This being so it becomes necessary to inquire what causes the adhesions, and if these can be prevented. Sepsis, destruction or separation of the peritoneum, the use of strong chemical antiseptics in the abdominal cavity, rough handling of the visceral or parietal peritoneum by sponges, hands, or instruments, prolonged exposure of the peritoneum to the air, and the use of certain suture materials have all, in turn, been accused of producing adhesions. Experiments and clinical observation have, however, shown that neither of these conditions is sufficient to account for all cases. It is well known that intestinal or omental adhesions to the margins of the incision are found in nearly every case in which the abdomen is opened subsequent to laparotomy, and that they occur in cases in which all the above-mentioned conditions can be excluded. On the other hand, Küstner has reported a case

showing strikingly that adhesions sometimes do not occur where they might reasonably be expected. He removed a very large tumor having firm adhesions to parietal peritoneum, omentum, bladder, fundus uteri, broad ligament, and sigmoid flexure. The adhesions were separated by the fingers and by the thermo-cautery. The coils of intestine were adherent and matted together. These were all carefully separated. Fourteen months later a secondary laparotomy for ventral hernia showed an absence of adhesions, either of the intestines to each other, to the parietes, or to the other abdominal viscera.

The symptoms of intestinal obstruction post-laparotomiam are essentially the same as those of primary obstruction. They are, however, often masked by pain, vomiting, and tympanites—so frequently present after abdominal operations without being significant of obstruction. Unless the obstruction is due to some untoward occurrence in the technique, the significant symptoms are not likely to be present for several days subsequent to the operation. If a patient does well for three or four days or longer after an abdominal section or vaginal extirpation, and is then suddenly attacked by pain followed by vomiting, tympanites, and inability to pass feces and flatus, the diagnosis of intestinal obstruction is probable. If the vomiting becomes fecal, the pulse rapid, the urine scanty, and symptoms of collapse set in, the diagnosis becomes reasonably certain. Unfortunately, however, all these symptoms are not uniformly present in obstruction. When the obstruction is high up in the small intestine fecal vomiting is usually absent, and distension is likewise less marked. In these cases, also, the bowels may move several times after the pain begins, so that the diagnosis may be more or less uncertain.

Recent observations have furnished additional data upon which to base an opinion. The late Prof. Von Wahl,<sup>11</sup> of Dorpat, first called attention to the occurrence of local distension of the bowel above the point of occlusion in mechanical obstruction. This distension begins at the point of obstruction and extends upward along the course of the bowel. In mechanical obstruction, therefore, if the case can be observed from the beginning, there will be an elastic swelling localized at a point of the abdomen and gradually enlarging, the direction of increase in size being along the course of the constricted bowel above the constriction. The distension is attributed to rapid decomposition of the arrested intestinal contents. Coincident with this local meteorism is an increased peristaltic movement of the bowel, also above the obstruction, especially insisted upon by Obalinski<sup>12</sup> and Schlange.<sup>13</sup> The observations of Von Wahl have been experimentally confirmed by Voß Zoega-Manteuffel<sup>14</sup> and Kader.<sup>15</sup> Obalinski and James Israel<sup>16</sup> have also proven the clinical value of Von Wahl's sign. Obalinski lays great stress upon the accu-

rate observation of these symptoms, especially early in the course of the trouble. In the later stages, particularly if septic peritonitis with paresis of the intestinal walls has occurred, these distinguishing signs are no longer available. In cases of obstruction due to paralysis of the intestine from the beginning (probably always a consequence of septic peritonitis) these symptoms are not present. Here there is a uniform globular distension of the abdomen without movement of the intestines, and without noticeable contours of the bowels through the abdominal walls.

An additional diagnostic sign, according to Rosenbach, Rosin, and others,<sup>17</sup> is furnished by the urinary reaction. It is claimed that in complete obstruction of the ileum there is always indican in the urine. In obstruction to the colon or high up in the small intestine this reaction is usually not present. The reaction is obtained by boiling a small quantity of the urine in a test tube and adding nitric acid *guttatim*. The urine turns to a Burgundy red color, and a similarly colored precipitate is thrown down. This has been shown by Rosin to be a mixture of the urinary coloring matters known as indigo blue, indigo red, and indigo brown. If urine yielding this reaction is shaken, a violet-colored foam is produced. Rosenbach attributes great prognostic significance to this reaction. So long as it remains the case is a grave one. If, after operation for relief of the obstruction, the reaction persists, the obstruction has not been removed. In cases where the obstruction is relieved the reaction disappears within twenty-four hours. Our Fellow, J. H. Branham,<sup>18</sup> has recently confirmed Rosenbach's assertion. While this sign must be regarded as a very important one, it is not absolutely pathognomonic, as a similar reaction occurs in some other morbid conditions.

The prognosis of primary intestinal obstruction is sufficiently grave. Following closely upon an operation so serious in itself as abdominal section or vaginal extirpation of the uterus, this gravity is enormously increased. The abdominal surgeon should therefore be prepared to promptly recognize and appropriately treat this unwelcome complication.

Fitz<sup>19</sup> expresses the result of much unfortunate experience when he says: "In the light of exact knowledge nearly all cases of acute mechanical intestinal obstruction die unless relieved by surgical interference." And as a corollary may be quoted the opinion of Senn<sup>20</sup>: "Intestinal obstruction is a surgical lesion in every sense of the word, and should be treated from the very beginning upon common-sense surgical principles." This does not mean, of course, that the knife should be resorted to at once in the treatment of this condition, but that when other means fail to give relief the surgeon should not hesitate to operate, as delay in cases, not otherwise curable, always increases the danger of operative measures. Bearing upon this point Senn says: "An abdominal section in the treat-



ment of intestinal obstruction is always necessarily attended by severe shock, and it is therefore of the utmost importance to perform the operation at a time when the organs of circulation and the nervous system are still in a condition to successfully resist the immediate effects of the operation."

However, the boldest surgeon hesitates to resort to such a serious operation as abdominal section for intestinal obstruction, unless the diagnosis of mechanical obstruction is perfectly clear. Some cases are so plain in their indications that the only honest choice is to operate or do nothing, and to a surgeon the latter would hardly seem an honest alternative. But cases occur where the nature of the obstruction is not entirely clear. The symptoms may point to obstruction by means of adhesions, peritoneal bands, or volvulus, and yet there is a possibility that there may be simply functional obstruction. In such cases other means may be tried until it is found that they are ineffective.

Little need be said here of the so-called "medical treatment" of intestinal obstruction. If any one chooses to treat such cases with opium or drastic purgatives, I do not envy him the results. But there are certain procedures, not strictly surgical, which are frequently indicated, and, though they are not often curative, certainly give temporary relief. Such measures are stomach washing, rectal inflation of gas or air, and injection of fluids.

Stomach washing was first recommended in intestinal obstruction by Kussmaul to relieve the distressing vomiting. Some mild antiseptic lotion containing boric acid should be used. The lavage may be repeated every four or six hours, as the vomiting or distension demands. It has been found that considerable gas is removed with the fluid contents of the stomach. Some of the matters in the upper portion of the intestinal tube are likewise siphoned out, and in this way relief always follows the washing out. At the same time it must be remembered that stomach lavage is only palliative and not curative in established mechanical obstruction.

Klotz<sup>21</sup> has had much success in treating acute obstruction following abdominal section by the following method. As soon as symptoms indicating obstruction appear, he washes out the stomach with from four to six quarts of warm salt solution. Should this fail to relieve the symptoms he repeats it, and then passes into the stomach through the tube a large dose (one and a half to two ounces) of castor oil. In all cases so treated the active peristaltic movements set up caused passage of flatus and *feces* within ten hours. Evidently it is only in cases of fresh and friable adhesions that this method can be successful.

Rectal injections of water or air may at times be curative when the obstruction is due to intussusception, volvulus, or to soft adhesions of the

lower portion of the intestine, but where the obstruction is due to cords or bands they can manifestly be of no avail. They should therefore not be pushed beyond a reasonable trial. Care must be taken not to use too much pressure in making rectal injections, for fear of rupturing the bowel. Attempts to force the ileo-cæcal valve must be regarded always as ill-advised, in spite of the claim sometimes made that fluids can be made to pass this gateway between the large and small intestine in the reverse direction. Too much care cannot be used in passing a rectal tube high up into the colon. I have seen one instance of perforation of the sigmoid flexure where this was attempted.

The rational treatment of intestinal obstruction following abdominal section is to reopen the abdomen either in the line of the first incision or at some other point, seek for the place of obstruction, relieve the same by separating adhesions, dividing constricting or restraining bands, or untwisting a volvulus. If the gut be much distended, an incision to let out the gas and fluid fæces may be made and the bowel afterward carefully sutured. Gangrenous intestine must be resected and the ends joined by suture or Murphy's button. At times it may be advisable to do colotomy, but the readiness with which the ends of resected intestine can be joined with Dr. Murphy's excellent device will probably render the operation of colotomy for this condition much less frequent than formerly. If the obstruction is due to a volvulus, it would probably be always advisable to resect the twisted portion of the gut, as the volvulus is extremely likely to recur. Keith advises that the long mesentery, always present in volvulus, be shortened by folding it upon itself parallel to the gut, and keeping it in place by a few stitches. A case has been reported by A. H. Cordier,<sup>22</sup> a Fellow of this association, in which there was constriction of intestine by a peritoneal band, followed by rupture of the gut. Abdominal section was done, the stricture relieved, and an anastomosis made with Murphy's button. The patient recovered.

When practicable, it is probably always better to make the incision in the middle line, as it permits more thorough and ready exploration. Branham advises that when the abdomen is opened search should first be made for the obstruction in the iliac regions, as here obstruction is most likely to occur. If not found in either of the iliac fossæ, and if it cannot be located by local distension, the entire length of the intestine must be passed through the fingers until the constriction is found. As it not infrequently happens that there is more than one point of constriction, the examination should be thorough.

The distension and congestion of the intestine above and its pale, empty, and flaccid condition below the constriction will often enable one to find the obstruction readily. Eventration of the intestines should be

avoided, if possible, although if the obstruction cannot be otherwise discovered this becomes necessary.

It goes without saying in this audience that the most scrupulous attention must be paid to asepsis during the operation, and that the peritoneal cavity should be thoroughly flushed and drained after relieving the obstruction.

The question naturally presents itself whether anything can be done to prevent the frequent recurrence of intestinal obstruction post-laparotomy. As the obstruction is so often dependent upon adhesions, attempts have been made to prevent those. Dr. Robert T. Morris,<sup>23</sup> one of our Fellows, proposes to accomplish this by covering denuded peritoneal surfaces with a film of aristol powder, which he claims prevents subsequent adhesions. The evidence hitherto furnished that aristol accomplishes this seems to me insufficient, but should stimulate to further experiment. August Martin wipes out the pelvic cavity with a sponge saturated with sterilized olive oil just before closing the incision after a laparotomy. I have not been able to learn whether adhesions are prevented by this procedure. To me it seems a doubtful practice. Obalinski produced purulent peritonitis in a rabbit in which he had used the sterilized oil.

Cases of so-called paralytic obstruction are usually to septic peritonitis. Here operation is rarely of service, although a case reported by W. W. Keen indicates that even in these cases one need not give up all hope. Keen did a laparotomy, incised the greatly distended large intestine and emptied it of its contents, flushed and drained the abdomen, and gave strychnine. The patient recovered.

In conclusion, permit me to quote the apt remark of Fritsch<sup>24</sup>: "Fixed rules governing the treatment of intestinal obstruction following peritoneal operations cannot be established. But the greater our experience in these cases, the more readily do we lean toward operation. Not, it must be said, that the results have been favorable hitherto, but because no other treatment is of any value in cases of severe obstruction."

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## SOME FACTS AND FALLACIES IN MEDICINE.\*

BY PROF. R. A. REEVE, B.A., M.D.

**I**N the name of the Medical Faculty we welcome, this evening, not only those who return to these halls, but those who now begin the study of medicine.

You enter a profession which has a history as well as a future, and whose present status has doubtless been an attraction. It is styled, as you know, a noble profession, and it has on its bead-roll many worthies to whom the world will ever be indebted for their deeds of heroic self-sacrifice and their unselfish devotion to the best interests of mankind. If the world of science reveres a Kepler, Columbus, Bacon, Newton, Davy, Cuvier, Humboldt, Franklin, and Faraday, we can point with equal pride to a Harvey, Hunter, Jenner, Simpson, Donders, Helmholtz, Pasteur, Lister, Koch, whose work has been of untold value to our race, and will be a priceless boon for all time. But I must needs remind you that in all the walks of life there is scope for the play of noble qualities, and that we have no monopoly. On the other hand, we must own that in our ranks have been those whose motives were sordid, and whose ways were not of the light, and hirelings of the baser sort for whom we have to bear the shame.

To the undergraduates let me say that in this institution—and it is the only one for which I am qualified to speak—anatomy is taught with due regard to its fundamental character, and at the same time as a sort of fine art, with its various branches of special interest to one and another. This subject, which is a sort of bugbear to not a few, akin to mathematics, but, in reality, as valuable to the medico as the latter is to the civil engineer, will, I am confident, be presented in a manner befitting the exceptional facilities here provided. More than that need not be said. Stereotyped methods have been discarded, except where utility has proved their right to abide. If you give the heed to your dissections and demonstrations that their importance demands, and that the public will to dissecting you later on, you will not be sorry for your pains.

\* Abstract of opening address, University of Toronto Medical Faculty, Tuesday, June 2nd, 1894.

Chemistry in a high degree provides that combination of observation and experiment that together constitute a leading avenue to knowledge. By its magic wand, to which nature bows submissively, things which she has joined together are forever dis severed, and, in turn, complex products are built up to cure the ills or minister to the well-being and comfort of mankind. You will observe the University has provided the long-expected domicile for so queenly a science, where, we doubt not, you will soon enter with zest upon your studies. We trust it may be the lot of some of you to reflect credit on your *alma mater* by original research in this department, the importance of which was dwelt upon by my predecessor of last year.

A number of years ago, when the latest incumbent of the chair of Natural History gave his inaugural address, he chose for discussion those infinitesimal forms of life that cling closely to the dividing line between the animal and vegetable kingdoms. As was natural in a mixed audience, there were those who looked askance at the selection made. But he was wiser and more prescient than they, and perhaps builded better than he knew, for on that occasion he laid the foundation of the future biological institute in which we are gathered, and over which he has presided so successfully. His department, while necessarily an integral part of University work, is an essential element in a system of medical education, and will be enjoyed and utilized by yourselves with a growing appreciation of its increasing value. This is the science that has given us asepsis in surgery; immunity, with all that it implies in preventive medicine; the new antidotal therapy that stamps an era in treatment; and has also laid us under deep obligation for the help given clinical experience in dispelling that sort of fatalism incident to the older views of heredity, and thus largely robbing phthisis and malignant disease of their horrors.

Embryology also, which is here taught as an important department of biology, and which, by the way, Leuwenhœk, in the seventeenth century, put to so good use in his studies and theses, demands your careful attention. For it is not only a sort of connecting link between anatomy, physiology, and pathology, but it is proving practically useful in the treatment, as well as the study, of disease.

As an evidence that this institution aims at laying broad and deep the foundations of a truly scientific education, allusion must be made to a short course on the history of medicine in its different epochs and phases, to be given by members of the Faculty. This is in accord with the most recent views on the higher education which a university should furnish. This series, it is believed, will prove both an inspiration and a revelation to not a few.

This is a happy juncture for those of you who are finishing your

systematic course, when, owing largely to the great strides made of late in biology, the newer methods in chemistry and microscopy, and the steady advances in pathology, a more scientific and satisfactory basis has been laid for etiology, diagnosis, and therapeutics. A new meaning and character have been given to inflammation, suppuration, and fever. And instead of holding diseases as entities, a great step has been made towards settling the entities of disease: for example, meningitis, pleuritis, and otitis become congeners by virtue of the pneumococcus.

But you enter the profession at a time when, despite its great achievements and high status, there is ample scope for research and discovery. There are many vexed questions to be settled, and you will have the incentive and stimulus to aid in their solution. And when there is nought left but to test for yourselves the validity of your title deeds to the vast estate of knowledge which is your heritage, you will have plenty of work for your spare energies.

Some years ago, when going through the Rockies with a number of medicoes, with memories for a lifetime crowded into a few hours amid earth's grandest scenery, my eye caught the iridescent gleam from a strand spun by some daring arachnid between two ledges over a deep chasm, and this veriest trifle of a fact became mine. There was food for thought in it, and I would not lose it. So, though there will be great depths of mysteries and lofty heights of truth before you to explore, let me urge you to keep an open mind, observant eye, and right attitude to catch the lesser facts by the way.

We hear a good deal said against empiricism in these days, but it has had its proper time and place, and it is quackery, rather, which should be treated with scorn. Empiricism may be likened to the makeshift trestle bridge over a morass on our great C.P.R., which, resting on the elastic crust, serves for a time and for ordinary purposes, but which one day gives way beneath some great emergency train. Then, not until the abutments are builded to the surface from the rock bed deep down on which they rest, can there be a solid highway for commerce. So is empiricism, which is apt to rest upon uncertain ground, is more set upon the end than mindful of the means, and prefers to jump at conclusions rather than, like science, to sound the depths to be passed over and laboriously fill up the pitfalls of ignorance. We would fain deny that the profession has been bound too much by traditional views, and that we are yet tied by some that are unworthy of this age of light and leading; but we must not unduly decry or undervalue empiricism, which has done much for medicine, and has sometimes, like instinct, proved a better guide<sup>s</sup> to correct practice than the hasty deductions of science.

It is no light task to play the rôle of Healer. Little wonder that many

of those who begin the study of medicine give it up and never qualify as practitioners, and that not a few retire from the arena after a brief trial at arms with their challenged enemy.

Disease is always something more than the changes we can yet recognize and describe in any organ or function, and our first aim should be to gauge the force and trend of the undercurrent of abnormal action beneath the outward expressions and symptoms.

These are facts, and facts in medicine—facts which are truths. But hypotheses are not facts, and statements are not facts, as I once heard Hughlings Jackson say, quietly, but decidedly. Hence, by virtue of faulty observation and unsound or prejudiced judgment, so-called “false” facts prevail, which one has from time to time to unlearn and get rid of. Another difficulty that meets the young practitioner arises from dogmatism in author, teacher, or leader. A case in point is that of Syme, the eminent Scotch surgeon, who, after a trial of iridectomy in glaucoma, condemned it, and put it under the ban of his great name. But his were “false” facts, as the relief of untold suffering by the operation since his day attests.

The relation of the mental state to the physical is a subject that forces the attention of the physician in this era of neurasthenia and the reflexes, and gives the clue to all sorts of perplexing possibilities. John Hunter asserted, 1786-87: “I am confident I can fix my attention on any part until I have a sensation in that part.” And this is the gist of what is now known of the influence of expectant attention and the imagination.

If any one doubts the influence of mind over matter, let him study the effects, direct and remote, of the emotions in their full bearing on tissue and function, and solve the riddle of somnambulism and mind-reading. Let him analyze that weird state, hypnotism, where the higher control centres seem to resign their regal sway, the *ego* is degraded, and personality is lost. Let him try to fathom that nondescript, hysteria, which so often throws such a false light over the picture of disease. We greet psychology, the latest of the natural sciences, as an ally, because mentality and medicine are closely related, and she takes hold of such practical matters as the relation of crime to disease, and deals with the correlated mental and physical growth of childhood, its dangers and safeguards. The methods of the kindergarten are not beneath her notice and criticism, and her voice of wisdom is heard within the halls of learning.

Besides the various anomalies and complications that may occur in the course of disease or after operation, there are many byways of fallacy to lead the practitioner astray, such as the subtle, yet far-reaching influences of heredity, the insidious, yet potent effects of habit, and idiosyncrasy. Disease, like an enemy, is often in ambush, decoying or misleading the



unwary or unskilled by feints here and there, while the real foe is gaining time and strength to fortify itself and make further inroads.

Our difficulties would be sensibly diminished were we to avoid confounding *post hoc* and *propter hoc* ; coincidences and sequences ; were we to avoid basing rules of practice on the conduct of one case or even a few cases, and the error that practice must always follow the plumb line of theory. We should be on the alert to test the value of new remedies, and should cultivate a spirit, not of blind acceptance of the oracles of the dead past or living present, but of justifiable searching after truth.

We have spoken of fallacies. Fallacy implies truth, once typified by old ocean, which no longer suffices to picture it. It is rather the subtle ether which interpenetrates all things, and is as indivisible and essential as it is ubiquitous.

What is truth ? This has been the question of the ages, and it will ever press upon you. It was asked of Him well-nigh two thousand years ago who alone could rightly tell it. Let us heed the answer. I would say with Tennyson :

“ Let knowledge grow from more to more,  
And more of reverence in you dwell.”

This is the key to true living.

# THE CHEMICAL IMPORTANCE OF PTOMAINES, OR CADAVERIC ALKALOIDS, IN MEDICO-LEGAL ANALYSIS.

BY WILLIAM B. McVEY,

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THE great advancement that has been made in physiological chemistry of late years has materially affected some of the views formerly entertained by our older investigators, and, as the result of the actual experiments of the many workers in that important field of scientific research, has added materially to the work of the toxicologist. It is, at present, a well-known fact that the excretions of all living things contain substances that are poisonous to the organism which secretes it. Thus, for example, a person may be carefully dieted, and allowed to drink only absolutely pure water, eat food of the very best quality, breathe the purest air, and yet in the excreta can and has been found poison. Now, where does this poison originate, and what are its effects on the system, in its various transformations? And is the presence of such poison and its products not easily mistaken, in cases of medico-legal analysis, causing error on the chemist's part, by the use of certain tests to ascertain the presence of the poisonous vegetable alkaloids? Especially as the quantity usually operated on is generally small, by the presence of these ptomaines he might be unconsciously led into error. There is abundant evidence that such has been the case, and possibly some innocent life might have been sacrificed by the finding of poison that was due to natural causes, and which already existed in the body, or originated after death by the processes of putrefaction, which, by the delicate color reaction tests, might have been mistaken for that of administered poison of the vegetable alkaloids. But, fortunately, the chemical analysis was generally regarded, in former years, as a link in the chain of evidence, and, as the art of self-destruction by the organic alkaloids is of a comparatively recent origin, it requires little or no comment, as toxicologists have thoroughly proven themselves equal to the difficulty. In my recent connection, as chemist, on the famous Dr. Meyer poisoning case,

in New York, even that educated villain and his vile associates were ignorant of the use of the alkaloidal poisons. The dreadful vocation of self-destruction, in every other form, was familiar to them, and Chicago Jack, when on the witness stand, surprised all by his cold-blooded testimony that he had suggested to Dr. Meyer that he should use nitro-glycerine to accomplish his purpose, as it was, in his experience, the best drug to use because a chemist can more easily be deceived by it. He stated that the way to work it was to engage a boat, entice the victim to go for a row, give him a drink of whiskey dosed with nitro-glycerine, then set him adrift on a hot day, and, when discovered dead, they would pronounce it a case of death from sunstroke, and that he had practised the use of different poisons on poor tramps in the slums of Chicago, and that the nitro-glycerine was the surest and best. And yet, by turning state evidence, this wretch enjoys his freedom in this free land.

Before entering upon the more practical side of the subject, and differentiate the ptomaines from the vegetable alkaloid poisons, I will refresh your memories a little on physiological chemistry. The microscope has revealed to us the size and shape of the various cells of which our bodies are composed. But in the study of these elements of life, we must not be forgetful of the fact that they have a chemistry as well. The life of the cell is influenced by its surroundings. They grow and perform their allotted work when supplied by the proper pabulum, and become injured when the product of their own activity collects around them.

This poison, therefore, originates in the metabolic changes which split up the organicmoleculi into its simpler parts, and the final results being urea, ammonia, water, and carbon dioxide. During this process of change that some of the intermediate products are highly poisonous is already well established. The difference in quantity and quality depends on the nature of the proteid acted on, and the force with which the action takes place. The human body resembles a colony of fungi or cells which, when their functions are not interrupted, are normal, so to speak, each cell changing its environments into itself, and the products of its secreta.

Thus our whole body really lives by the joint ferments of its structure, each cell, or group of cells, supplying its special function. Any cause by which the cell or cells are prevented from doing their allotted work produces disease, the study as to the cause of which has of late assumed great importance, as the methods of many of the pathogenic bacteria are due to the production of this form of poison, and as it is found to exist in the dead body has received the name of ptomaines. All putrefaction is now considered due to the action of bacteria, and as a result of the growth of these organisms forms a very complex class of substances which are known as ptomaines, or cadaveric alkaloids. They are produced from

albuminoid substances by the influence of putrefactive decay. Unfortunately, they bear a very marked resemblance in many ways to the class of substances known as the vegetable alkaloids.

There has been separated up to the present time about sixty separate ptomaines, each of which has been so thoroughly studied that their respective chemical formula is already known. Some are intensely poisonous, while others are inert. I will not attempt in this short paper to enter minutely into the special actions and the respective tests allotted to each, by which each can be recognized without doubt, but will present to you the method by which these ptomaines can be isolated, and have arranged these into classes, according to their behavior to solvents; and also mention some of the individual tests whereby, in the same solvent, the identity between ptomaines and vegetable alkaloids can be established.

These ptomaines, or cadaveric alkaloids, as they are sometimes called, possess all the characters of the vegetable alkaloids, are alkaline in reaction, and combine with the acids, and form salts. They are liquid, solid, and crystalline. Some are very poisonous, while others are not. Their behavior towards the general reagents for alkaloids are similar to those used for the vegetable in many respects. Thus it can be easily seen that from their very origin there is great difficulty in the separation of these cadaveric alkaloids or ptomaines, on account of the very complex nature of other substances with which they are associated in great numbers in the decomposing mass. Many methods have been devised, but the one most commendable, which has been used with such success by the celebrated Italian investigator, Professor Selmi, and endorsed by Professor Vaughan and others, is, viz., separation of the ptomaines. The material from which they are to be extracted is divided as finely as possible, and placed in a suitable sized glass flask, to which is added twice its volume of 90 per cent. alcohol, and, if not already acid, acidulate with acid tartaric, and from time to time see that it is acid in reaction as the process goes on. This flask is now connected with a reflux condenser, and placed in a water bath, and kept at a constant temperature of  $70^{\circ}$  for twenty-four hours. The warm liquid is then transferred to a special devised apparatus for filtering by the aid of atmospheric pressure as follows: The liquid is poured on a damp cloth, placed on a perforated porcelain funnel, which is connected below with a receiver, from which all air has been exhausted by an aspirator, thus securing rapid filtration, and by repeated washing the mass is thoroughly exhausted. This acid alcoholic liquid is now transferred to the following designed apparatus: A tubulated retort, of suitable size, is connected with a tubulated receiver by means of a suitable cork, covered with membrane to exclude air. In the tubule of the retort a small per-

forated cork is placed, through which runs a glass tube extending near the bottom, finely drawn out to a point at the lower end. And the tubule of the receiver is connected with a Leibig bulb, containing dilute sulphuric acid (1 to 10), and the bulbs are connected with an aspirator, by which means a fine current of air is drawn through the liquid, and keeps it constantly agitated. The retort is kept in water bath at a temperature of  $28^{\circ}$ . The receiver is kept cool by a current of water passing over it. In this way the distillation of alcohol goes on rapidly, and decomposition is so far prevented that volatile bases are never found in the bulbs.

The aqueous extract after the removal of alcohol by the distillation is filtered, and extracted with ether, as long as anything is dissolved. It is then mixed with powdered glass, and evaporated to dryness *in vacuo*. This residue is repeatedly extracted with alcohol, and the alcohol is again distilled by the process above described. The residue is then taken up with distilled water and filtered, then made alkaline with sodium bicarbonate, and repeatedly extracted with ether, benzine, and chloroform. Now, in order to obtain the base extracted by these solvents, if bulky, the greater part may be evaporated on water bath, and the remainder allowed to spontaneously evaporate. By this process a great many ptomaines or cadaveric alkaloids have been separated, studied, and identified.

The following is a tabulated list of these ptomaines which have been arranged according to their behavior to solvents, and the action of some of the individual tests compared with their action on the vegetable alkaloids :

*First Class.* Includes ptomaines which pass from acid solutions over to ether.

*General Tests.*

*Results.*

- (1) Acid tannic
- (2) Iodo-iodide potass.

{ The action of these two tests give similar results to those obtained from natural vegetable alkaloids.

- (3) Chloride of gold = No precipitate.

(4) On evaporating four or five drops of the aqueous solution, the addition of three drops of HCL and one drop of  $H_2SO_4$  gives, on warming, a beautiful *violet color*.

(5) Nitric acid *colors it yellow*. Ptomaines of this class might be mistaken for digitalin, which is also taken up by ether from acid solutions.

*Difference.*

*Ptomaines.*

*Digitalin.*

Evaporate to dryness and treat with  $H_2SO_4$  = A *rose color*, turning *mauve*, with vapor of bromine.

*Second Class.* Includes ptomaines which pass from *alkaline* solutions over to ether. This class gives various color reactions and form crystalline products.

*Physiological Test.*

Produces slight dilation of the pupil and diminishes the frequency of respiration.

With the following test might mistake morphia :

*Ptomaines.*

*Morphia.*

(1) Iodic acid = Decomposes.

Iodic acid = Decomposes.

(2) Phospho-molybdic acid = At first a *violet*, changing to a *blue* color reaction.

Plat. chloride = A precipitate.

*Third Class.* Includes ptomaines not soluble in ether, but *soluble in chloroform* as obtained from *alkaline solutions*. All the bases of this class are strongly acid, and possess a pungent, bitter taste. Decompose very readily on evaporation of chloroform, even at a low temperature.

*Tests.* (1) Iodic acid = Reduces all the bases of this class.

(2) Sulphuric acid = Gives a red color.

(3) Froehde's reagent = Gives a red color reaction.

*Fourth Class.* Includes ptomaines insoluble in ether and chloroform, and readily pass from *alkaline* solutions over to amylic alcohol.

*Tests.* (1) Hydriodic acid = Long needle crystals.

(2) Amylic alcohol = A base which *does not reduce iodic acid*, and gives *no color with the usual tests*, thus making a mistake with plant bases impossible.

*Warning.* *Morphia* = Can also be in this class. The color tests and all tests known for it should be applied.

*Fifth Class.* Includes ptomaines which are not extracted by either chloroform or amylic alcohol, but which are *soluble in water*, and almost tasteless.

*Tests.* (1) Sulphuric acid = No color reaction.

(2) Chloride of gold = Gives no precipitate.

(3) Chloride of mercury = " " "

Hydriodic acid = " " "

It is, of course, necessary that the solvents and all materials used in extracting, and the reagents, should be absolutely pure. In separating and isolating the ptomaines from the vegetable alkaloids a good microscope is indispensable, as the crystals formed by the vegetable alkaloids are very marked. When you consider that in some cases not more than two or three drachms of fluid are available for chemical analysis to determine the presence of the different poisons, it will convey some slight idea of the importance and the delicate nature of the work of the toxicologist.

## THE PREVENTION OF TUBERCULOSIS.\*

BY J. F. MACDONALD, M.D.,

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OF all the contagious and infectious diseases, none is more universally prevalent than tuberculosis. In none is the medium of contagion so recklessly and persistently sown, and in none is the danger so little known or appreciated. Tuberculous patients walk abroad, scattering broadcast their sputa, laden with the bacillus tuberculosis. (Consumptive people, generally, are not very particular as to where they spit.) Thus the medium of contagion is deposited on our streets, in our churches, public halls, theatres, railway carriages, railway stations, in all public places, all public conveyances; wherever the consumptive goes, whether into public places or private residences, he leaves behind him the seeds of disease and death. Popular belief has been, and still is, that tuberculosis is a disease transmitted from parent to child, from one generation to the next; a disease to be accepted as an inherited doom, the power to escape from which is beyond human control. The medical profession, in the past, to a large extent, has shared in this belief. Hitherto the contagiousness of tuberculosis has either been unknown to the mass of the profession or practically ignored by them. Hence the absence or inadequacy of means taken to prevent and control the propagation of this most deadly disease. It is, probably, owing to the insidiousness of attack and protracted development that the medical profession, as a body, has been so slow in recognizing its contagiousness and the necessity and duty of securing the means for its limitation and prevention.

To-day the contagiousness of tuberculosis is an accepted fact, firmly established by scientific research. Bacteriology, penetrating hitherto unknown regions, has not only demonstrated the origin, but, by actual experiment, the contagiousness of tuberculosis.

Thanks to the revelations of the microscope and the labors of the laboratory for the knowledge now in our possession of this, as of other diseases, and all honor to the men through whose patient, persevering toil the veil of mystery has been drawn aside, and the search-light of science

\* Read before the Canada Medical Association, St. John, N.B. 2

thrown into the regions of darkness and doubt through which we have so long groped !

It is not the purpose of this paper to discuss the contagiousness, pathology, etc., of tuberculosis, but to direct the attention of the profession of this country and this association to the necessity of taking practical and prompt action to secure means for its prevention.

By virtue of their profession, the medical fraternity have constituted themselves the guardians of the public health, and rightly so, for, on account of their professional education, they alone, as a body, possess the qualifications to occupy that position. And upon them devolves, at least, the initiative in this work. Much has already been done, with brilliant results, in the prevention of other contagious diseases ; this one now demands special attention. Examining the Dominion Census Bulletin, No. 15, 1891, we find that of the 67,688 deaths in the Dominion for that year 7,490 are recorded under the head of phthisis, about 11 per cent. of the whole. And doubtless a large percentage of other diseases, as scrofulous, cerebro-spinal, catarrhal, lung, stomach, non-specified diseases, is due to tuberculosis, which will make the percentage much larger. This is alarming, and, if preventive measures are not taken to limit the ever-increasing supply of contagion, the death rate must rapidly increase. Whether it shall increase or decrease is largely in the hands of our profession. For, as widespread as it is, as prolific the ever-increasing supply of contagion, and as firm a hold as it has on our population, no infectious disease may more readily and completely be controlled and prevented. The medium of contagion is found in the discharges of broken-down tissues from the infected. And, of these discharges, the most prolific are the sputa. To destroy this bacillus-laden matter and prevent contagion is our object.

In England, preventive measures adopted—special hospitals for the poor—have resulted in reducing the mortality from this disease fifty per cent. in forty years. In the United States, the profession, and, to some extent, the laity, realizing the great mortality from it, its contagious nature, and the effectiveness of preventive measures, have undertaken the work of inaugurating preventive measures, and are educating the people in that line. In Philadelphia, the Pennsylvania Society for the Prevention of Tuberculosis is doing a great work. What are we in Canada doing? If nothing definite and practical has yet been done by the profession as a body, would it not be well to begin at this meeting of the Canada Medical Association?

In Nova Scotia, the Provincial Board of Health has been publishing, for the information of the people, circulars treating of the nature and prevention of infectious diseases. These are for free distribution, and should be productive of much good. No. 8 "On the Prevention of Tuberculosis



(Consumption)," gives valuable information, and will do much to educate the popular mind in reference to this disease. This is in the right line of work. But we want a better, a more active, interested channel of distribution for the information provided—a volunteer association. It may be that similar work is being done in the other provinces.

Before any comprehensive system of prevention can be successfully carried out, it is necessary to educate the people as to the contagious nature of the disease, how to avoid contracting it, and to teach those having it how to avoid transmitting it to others. This may be done in several ways: by using the "secular press," by the organizing of "societies for the prevention of tuberculosis" in every province, in every city and county in each province; these societies to be composed of all philanthropists, medical or lay (medical men are all philanthropists), and all who are interested in the welfare of their country; all who care to preserve their own lives and the lives of others. These societies should publish and distribute free such literature as will give the people intelligent and full information on the subject.

Then we want legislation. (1) A system of registration of all cases of the disease as soon as it manifests itself. (2) A careful system of disinfection of all infected buildings, private as well as public, and all public conveyances. (3) Government inspection of infected places, all dairies and slaughter-houses; for, unfortunately, our animals, upon which we are dependent for so many of the necessities of life, have become largely infected with tuberculosis, doubtless conveyed, transmitted, to the lower animals by the animal man. (4) Establishment of special hospitals for the reception of infected poor. (5) The enactment of laws to prevent the infected from spreading the infection.

#### KEEP TUBERCULOUS PATIENTS AT HOME!

Certain places have gotten the reputation of having climate specially adapted to the cure of tuberculosis, and hither the dying consumptives hie, in most cases to die, and in all cases to spread the germs of disease and death. The practice, far too common, of sending tuberculous patients, having reached the second stage of the disease, away from home for the benefit of climatic changes is, I believe, to a large extent useless, too often cruel, and to be strongly deprecated. The migrating from place to place by consumptives seeking relief from the disease is a most effective method of spreading it. The greater the facilities for travel, the more prolific the means of spreading the disease. Hotels, railway carriages, sleeping cars, steamships, etc., become, to a large extent, infected by migrating tuberculous patients. If the public were fully informed as to the contagious nature of consumption, and the danger of infection

from migrating incubators and distributors, the danger from this most prolific source of contagion would be greatly lessened. Hotel-keepers and public carriers, looking to their interests, would be compelled to guard against infection, so far as their houses and conveyances were concerned. Doubtless the infected, when informed, will see the propriety of abstaining from practices that endanger the public welfare.

Localities, as many of the western parts of this continent, so often recommended as the consumptives' haven of refuge, probably owe their immunity from tuberculosis to the paucity of supply of contagion. Pioneers are generally not of the tubercular class of our citizens. If the theory of reinfection, which seems most reasonable, is correct, which I believe, then the newer the locality, the safer for the consumptive. Still better would it be for the new country that tuberculous subjects be prohibited from invading its territory. Is it not true that now, in most of those western ports of hope, tuberculosis is as rampant as in the older Atlantic portions of our continent?

If the profession give this matter due consideration, and the Canada Medical Association take action in the matter and bring it fairly and fully before the people, we will, I believe, get the ready and efficient help of the laity. Show the people the alarming and increasing death rate from this disease, convince them of its contagiousness, and how to avoid that contagion, and we will receive a ready response from at least the most intelligent portion of the people.

Unfortunately, there is no section of our country exempt from this scourge, and few families that have not, either nearly or remotely, suffered from its ravages.

This subject was brought, by the writer, before the Pictou Medical Association at its last two meetings, with the result that the first and most important step, the work of educating the people, has been inaugurated.

## ABDOMINAL HYSTEROPEXY.

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**N**EXT to pelvic inflammation there is, perhaps, no other disease that we are more commonly called upon to treat than retro-displacements. After labor the ligaments are loose, the uterus heavy and enlarged, and softer than when in a healthy condition, so that, should there be any excessive intra-abdominal pressure, or, as too often happens, the woman may be kept too long on her back after confinement, and perhaps a large pad and too tight abdominal binder applied, the condition of retroversion is confirmed. Then, again, the pressure, acting on the anterior instead of the posterior surface of a softened uterus, may cause the fundus to flex on the cervix, and we have retroflexion.

There almost always follows from this condition symptoms of endometritis and pelvic peritonitis, constant pain in the back, pain while menstruating, and often a too excessive flow, while sterility is pretty certain to exist, or, if pregnancy should occur, there is the almost certainty of abortion.

It is to the treatment of these troublesome cases and their permanent relief that I wish to draw your attention. Most of the text-books, except those of the last year or two, advise that these cases should be treated by massage to loosen the adhesions, if they are present, and, after replacing the uterus, to depend on the artificial support of pessaries.

The trouble in obtaining such an instrument, which will properly retain the uterus without causing pain, the tendency to irritation and even ulceration, from pressure or want of cleanliness, while wearing a pessary besides the inconvenience, have called for some way of retaining the uterus in its normal position by operative means.

The two operations which have been found of benefit are shortening of the wound ligaments and abdominal hysteropexy.

The former operation is limited to those cases where the uterus is freely movable, and where there are no adhesions, but the difficulty in finding the round ligament; the chance of mistaking something else for

it ; the danger of tearing the ligament, especially when in advancing age it has undergone fatty degeneration ; and, lastly, the limited experience of most men, render this operation of very infrequent application. Baldy says : " It is a question whether that operation alone could afford much relief. It is usually preceded and followed by measures which ensure its success, and which possibly might have succeeded without the Alexander operation. Again, the operation has a small rate of mortality, and too high a rate of failure. It occupies a position between plastic work which has failed in its purpose and cœliotomy." It is limited to those cases where there are " no adhesions, no endometritis, and no tubal or ovarian disease, but the uterus maintains a retroposition, which still gives rise to symptoms. These, and only these, are the cases for Alexander's operation. They must be exceedingly rare, for if a retroposed uterus is put into a healthy condition, the pelvic floor restored, and the organ supported for some months, its ligaments will regain their tone, and require no shortening."

Several attempts have been made to fasten the uterus to the vagina, or, as the operation is called, colpohysteropexy, but they are all open to the objection of acting on the fundus and fixing the uterus to tissues that are movable and extensible.

The other operation, then, or abdominal hysteropexy, presents a means of retaining the uterus permanently in a natural position, relieving the painful symptoms due to, and kept up by, the displacement, and often curing the dysmenorrhœa and sterility which so urgently call for relief.

Like many other surgical procedures, this operation was suggested by accident, for so long ago as 1869, in a case of retroflexion causing symptoms of intestinal obstruction, Kœberlé opened the abdomen and removed a healthy ovary, suturing the pedicle to the lower part of the wound and thus curing the displacement. Between this and 1880 several cases of a somewhat similar kind were recorded by Schröder, Lawson Tait, and Hennig.

Shortly after this Olshausen recorded an original method, and this has been variously improved upon by Czerny, Klotz, Leopold, and Howard Kelly. The latter has recently published an account of forty-five cases without a single death, and showing remarkably good results.

The operation as now performed is done as follows : The pubis is shaved, and the abdominal wall thoroughly prepared by washing and antiseptics. The Trendelenburg posture is preferable. An incision scarcely more than two inches in length is made through the skin and sheath of the rectus, the muscle being separated by the fingers, the peritoneum is exposed and incised between catch forceps. A stitch is then taken on each side of the wound fastening the peritoneum to the skin,

thus facilitating the next step in the operation and preventing the subsequent invagination of the peritoneum.

The uterus is lifted up, freed from adhesions, if present, and held in an antiflexed position while the ovaries and tubes are examined, and if diseased they are treated according to the condition found. A curved needle armed with silkworm gut is passed under and through the peritoneum and subperitoneal tissue transverse to the incision, about half an inch away from its edge, and close to the symphysis pubis. It is then passed through the posterior surface of the uterus just below the fundus, taking in a layer of tissue about one-half of an inch in width and about one-eighth of an inch in thickness. The suture is then passed through the other side of the incision. Another suture is passed about one-quarter of an inch lower down on the posterior uterine tissue, the uterine surface which is to be approximated to the peritoneal surface is gently scarified, the sutures are tied and cut short.

The abdominal wound is then closed either by continuous catgut sutures taking up each layer separately, or by silkworm gut, through all the layers together. Antiseptic dressings and a binder are applied. There is usually very little bleeding from the uterine sutures, and the operation is hardly any more dangerous than an uncomplicated coeliotomy.

It is not necessary to use a Hodge pessary afterwards, nor to tampon the vagina. Sanger, Routier, and Kelly have all recorded cases where abdominal hysteropexy has been performed that afterwards became pregnant and were safely delivered without damage to the supporting adhesions.

This operation, then, seems to meet the indications for a procedure which will relieve those cases of otherwise incurable retroflexion, and where the intensity of the symptoms demands some means of permanent relief.

# Clinical Notes.

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## CASE OF PRIMARY DIPHTHERITIC LARYNGITIS.

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By W. B. THISTLE, M.D.,

TORONTO.

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FRED. W., æt. 4 years, admitted to Victoria Hospital, suffering from obstruction of breathing. He had been quite well until three days prior to admission. At that time he was hoarse, feverish, and felt ill. The case was looked upon as one of ordinary croup, and so treated. Distress in breathing became greater, and after three days he was brought into the hospital. His dyspnœa was extreme at times, and there was constant distress. He was quite conscious, although drowsy. There was slight recession of soft parts above and below ribs. Throat examined carefully, but nothing resembling membrane was found; urine examined, no albumin. Knee-jerks obtained. The boy was placed in a tent bed and treated as though the laryngitis were diphtheritic. Steam medicated with ol. eucalyptus and turpentine was kept constantly about the patient, except at intervals of three hours, when 3 grains of calomel was sublimed and fumes inhaled for twenty minutes. The bowels were cleared out with a full dose of calomel. No improvement on second day. Breathing was constantly difficult. Was given whiskey and frequent doses of liq. strychnia in addition to steam and calomel fumigation. Examined throat carefully and with a good light, and thought that I could detect a small spot on lower surface of one tonsil, but was not positive. This suspicion, together with the constant character of the dyspnœa and duration of obstruction, favored the idea of a diphtheritic inflammation, and accordingly the boy was sent to the infectious ward. Medicated steam, subliming of calomel, and stimulants were still continued. The breathing was not sufficiently difficult to be much relieved by the introduction of a tube, but the possibility of its becoming so at any moment was apparent. On the third day the condition was about the same, but about midday there was sudden increase in the difficulty. Tracheotomy was quickly done and a

tube inserted, but without giving any relief, and death occurred in a few moments. The intubation instruments were not available just at the time.

A complete autopsy was not permitted here. The larynx and trachea as far down as half an inch past the bifurcation was removed. Grayish-white exudate protruded through the tracheal wound. Upper surface of vocal cords was free of membrane, but membrane welled up between cords. Pharynx, tonsils, and nose were thoroughly examined and no trace of membrane found.

Under surface of vocal cords and interior of larynx and trachea, as far down as the bifurcation, were covered with grayish-white membrane. The deposit was thick and pulpy in larynx, but became gradually thinner as it extended down trachea. It peeled up readily, and formed a complete cast of the larynx and trachea. A portion of membrane was examined microscopically, and Klebs-Leoffler bacilli found in large numbers.

The interesting points in the case are: (1) The nature of primary membranous inflammation of the larynx; in this case undoubtedly diphtheritic. (2) The difficulty in making the diagnosis. There is apparently nothing to indicate particularly or distinguish the nature of the inflammation, except in cases where there is albumin in the urine, or absence of knee-jerks. But these two conditions can only occur when there has been sufficient toxine absorbed to bring about change in the kidney vascular tufts, on the one hand, or the peripheral nerves, on the other. Until this point is reached there is nothing to distinguish the disease from a simple inflammation of the larynx. The constant character of the obstruction with gradual increase, together with change in the pulse, and drowsiness or stupor, which imperfect supply of air is not sufficient to explain, makes it probable that the inflammation is diphtheritic. (3) The third point of interest is the fact that inhalation of calomel fumes, although thoroughly used, had not the slightest effect. Looking at the condition of the parts, it would, indeed, be wonderful if a diphtheritic culture in this situation could be so easily overcome when a similar growth, perfectly accessible, requires such active treatment to exterminate it.

# Progress of Medicine.

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## SURGERY

IN CHARGE OF

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AND

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### BIER'S METHOD OF TREATING TUBERCULOSIS.

In 1892, Dr. Bier, a German surgeon, brought before the profession a method of treating tuberculosis of the joints which commended itself on account of its simplicity, and has since been employed with excellent results by the author and a number of others. This method consists in producing a condition of congestion and hyperæmia in the affected part, by the use of elastic constriction, in the following manner: After applying an ordinary bandage to the limb from the distal end to a point just below the lesion, a broad elastic band is applied a few inches above the diseased part with sufficient firmness to induce venous stasis, the skin being protected by a layer of cotton or lint. Mikulicz (*British Medical Journal*, April 21st, 1894) had a favorable experience with this method in a case of marked tubercular arthritis of the knee-joint in which iodoform injections had been previously employed without success. Under its use the tubercular deposits disappeared in eight weeks, leaving a joint which, though painless and free from active lesions, was much impaired, owing to cicatrization of the destroyed structures. In three other cases the results were also excellent, while in a fifth the tuberculous process was arrested, although it was found necessary, subsequently, to amputate, on account of the extensive destruction of the bones by the disease. According to Mikulicz the prospect of curing tuberculosis by this method will depend upon its ability to promote reaction in the diseased part to a sufficient extent that



it will successfully resist the attacks of the tubercle bacillus. Whether its good effects are due to simple hyperæmia, the curative action of the effused serum, or a self-developed tuberculin action, remains to be decided. He advised that the constriction be at first lightly applied, and only for a few hours at a time, and that later it can be increased in force and duration according to the intensity of local reaction and the tolerance of the patient. The bandage should not be left on too long, as atrophy of the limb is apt to result. Dr. Miller (*Edinburgh Medical Journal*) has also observed some improvement from Bier's method in cases of tuberculous joint disease, although its favorable action was still more pronounced in cutaneous affections of the extremities. He prefers intermittent to continuous compression, as the former method is attended with less risk, and is followed by equally good or even better results. In his latest report to the German Surgical Congress of this year, Dr. Bier presented an estimate of his method based upon the results obtained in one hundred and eighty cases of tuberculosis treated by him in this manner. Although these results are in no wise startling, they show that this procedure may be utilized with advantage in certain cases, especially if combined with iodoform injections as recommended by the author. The most favorable effects were noted in cases of tuberculous arthritis uncomplicated by fistulæ, in which rapid and marked functional improvement occurred. This was soon followed by the appearance of a small abscess, which was usually punctured, emptied, and injected with iodoform, without suspending the treatment. Sometimes larger abscesses formed, however, necessitating its discontinuance. In cases with fistulæ, healing seldom took place, and it was usually found necessary to inject the fistulous tracks with iodoform emulsion or Willate's solution. In two of three cases of tuberculosis of the epididymis and testis subjected to venous compression a cure resulted, and, in lupus, a modified method of producing stasis by means of cups proved efficient, and even effected a cure in one instance. At the same meeting, Dr. Zeller, who has tested this treatment at Sonnenburg's clinic at Berlin, also testified to its value. He derived especially favorable results from its use in combination with iodoform injections, and recorded a positive cure in the case of a child suffering from tuberculosis of the knee-joint. In whatever way, therefore, we look at this method—whether as an independent procedure, or simply as an adjunct to the iodoform treatment—it seems certainly worthy of a trial in selected cases. It should be remembered, however, that it is not free from the risk of erysipelas, lymphangitis, suppuration, and atrophy of the limb, and that the patient must be kept under observation during the entire course of treatment.—*International Journal of Surgery.*

### FORMALINE AS A PRESERVING AND HARDENING FLUID FOR HISTOLOGICAL PURPOSES.

(G. Bergonzoli, *Bull. Scientifico*, 1894, No. 1, p. 18.) Formaline or formal, in solution concentrated to forty per cent. of formaldehyde, is a limpid liquid, slightly opalescent, neutral or slightly acid, of a characteristic pungent odor. The antiseptic properties of formaldehyde have been studied by Loew (1886), Aronson, Berlioz, and Trillat. The author has found from his observation that solutions of formaline are deodorant and disinfectant; that pieces of tissue immersed in it are rapidly fixed and hardened, and only shrink to an almost imperceptible degree. The color is perfectly preserved, only the coloring matter of the blood being dissolved. For nervous tissue it is excellent. Formaline has the advantage over alcohol that it is not inflammable and is much cheaper.—*Rev. Internat. de Biblog. Méd.*

### ACTINOMYCOSIS.

(Max. Wolff, *Berliner Medicin. Gesellschaft et Deutsche Medicinal Zeitung*, No. 19, 1894.) Wolff, with Israel, was the first to obtain pure cultures of the actinomyces, and also to succeed in producing experimental actinomycosis. He used guinea pigs, rabbits, and sheep, and injected into the peritoneum. He got positive results in the first two kinds of animals, but the lesions were always localized, and never was there generalization as takes place in man. But he killed the animals after four or five weeks. In one case an animal was kept for one and a half years before it died, and in this one there were two metastatic nodules found in the liver, surrounded on all sides by hepatic tissue, thus corresponding to metastasis in man after primary actinomycosis of the alimentary tract. The middle of the nodules was softened, and contained a large number of yellow granules of the size of millet seed. Virchow found that some of the specimens were radiating in form; the rest were simply isolated masses. To the author, the presence of these yellow granules sufficed to establish the diagnosis, but their color might sometimes be brownish or greenish-yellow instead of sulphur-yellow. He showed a specimen of actinomycotic tumor of enormous size taken from the maxilla of a steer. Metastasis has only rarely been observed in animals.—*Rev. Internat. de Biblog. Méd.*

### CONTUSIONS AND SPRAINS OF THE BACK, WITH SPECIAL REFERENCE TO THE EARLY TREATMENT OF THESE INJURIES.

During my term of service in the Presbyterian Hospital in 1892 there were admitted to the surgical wards nine patients who suffered from contusions and sprains of the back, and it has occurred to me that a short

description of the method of treatment, which I have employed with the most satisfactory results in this class of injuries, might be of some interest.

In these cases the lumbar-dorsal region of the back was the part most frequently injured, and this part seems to be that which is most commonly the seat of contusions and sprains.

*Treatment.* As regards the treatment of contusions and sprains of the back, I consider that rest in bed is a matter of the first importance, and, in addition, I have found that the pain and general discomfort of the patient is much diminished, and the time of treatment much shortened, by having the back firmly strapped as soon as the patient comes under observation. The strapping of the back is effected by taking strips of resin-adhesive or rubber-adhesive plaster  $2\frac{1}{2}$  inches in width, and long enough to extend half way around the body; these are applied so as to cover in the back one strap slightly overlapping the other, from a point just below the junction of the last lumbar vertebra with the sacrum to the lower ribs.

These straps were often removed at the end of two or three days, and the back was restrapped if the pain and tenderness still persisted. The straps were usually allowed to remain in place until the patient was up and about, without complaining of pain or discomfort in the region of the injury. In cases of severe contusion the straps often require renewal a number of times.

This method of treatment of contusions of the back was first called to my notice by Professor Ashhurst, while serving as resident physician in his wards at the University Hospital, and since I have employed it I have entirely discarded the use of fomentations and stimulating lotions, which are generally recommended in the treatment of these injuries.

The treatment usually recommended in contusions and sprains of the back is warmth, frictions, stimulating liniments, anodynes, acupuncture, galvanism, and massage, and of these I think massage is the most valuable, employed after the acute symptoms following the injury have subsided; but in early stages of these injuries I am convinced that strapping will be found the most satisfactory method of treatment.

I have observed that the application of straps employed as above described is usually promptly followed by relief of pain, and the fixation produced allows the patient to move with more comfort; and I am very certain, after having now employed this method of treatment in a considerable number of cases, that the time required for the recovery of the injured parts is much shortened.—*Henry R. Wharton, M.D., in The Philadelphia Polyclinic.*

# PÆDIATRICS AND ORTHOPÆDICS

IN CHARGE OF

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## TREATMENT OF CONGENITAL DISLOCATION OF THE HIP.

The methods of treatment are: (1) By apparatus; (2) by forcible reduction without traction; (3) by operative reduction.

Treatment by the first two methods is regarded by the writer as palliative rather than curative, and as unreliable and generally impracticable.

Other operative methods are briefly considered and said to be unsatisfactory, and the method of Hoffa, of Würzburg, is discussed at length—that by operative reduction of the congenital dislocation.

The operation is thus described by Hoffa: "After opening the joint by means of a Langenbeck incision and subperiosteal separation of all the soft parts from the trochanter major, it is possible, in young patients to the age of seven, to place the head of the femur, by a flexion of the thigh and direct pressure, into the normal acetabulum. Without separation of the soft parts, even after the joint is opened, it is impossible to effect a reduction, but, after the reduction of the head, with the hip and knee flexed, if an attempt is made to straighten the knee, the head of the femur slips out of the acetabulum: It is, therefore, important that the head should be kept fast in the acetabulum while an assistant gradually stretches the biceps, the semimembranoses and the semitendinoses." He also advises the subcutaneous division of the fascia lata and the muscles which pass from the spine of the ilium. The second step is the making of a new acetabulum, which is done by means of a Volkmann's curette. The third step consists in the replacing of the head of the femur into the new acetabulum, which is recognized by the sudden motion of the head of the femur, as in reduction after traumatic luxation.

Hoffa, Lorenz, and other operators find their greatest success in the

treatment of young children, and are unable to effect a reduction in children advanced in adolescence.

From his operative experience and his experiments upon the cadaver, the writer is of the opinion that an anterior division of the strong ilio-femoral capsular bands should be made freely, as by this means older cases could be subjected to operation with better success; that the difficulty found in retaining the head of the femur in the new acetabulum could be overcome by freely cutting the shortened tissues on the anterior surface of the capsule; also that the curette is not necessary in young children, as an acetabulum appears to be present.

The writer's conclusions are: (1) That the method of treatment by traction, or by mechanical means, crutches, splints, recumbent position, with or without tenotomy, do not effect a cure; (2) correction by means of forcible reduction without incision can be applicable in but few cases, and is not reliable; (3) that the method of operative reduction offers the best prospect of a cure. The method, at present, involves risks, and is not certain in its results.—E. H. Bradford, in *Annals of Surgery*, August, 1894.

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#### EXCISION OF KNEE-JOINT. FINAL RESULTS IN THIRTEEN CASES.

At the Massachusetts General Hospital, during ten years previous to 1891, ninety-nine excisions of knee were performed. Thirteen of these cases reported in periods varying from four months to six years afterward, averaging three years after the time of operation. The results may be summarized as follows:

Shortening,  $\frac{1}{2}$  to 3 inches.

Average shortening,  $1\frac{6}{7}$  inches.

Union complete in twelve.

Movement slight in one.

Limp slight in all cases.

Deformity, not stated.

For internal fixation, metal sutures give the best results.

Transverse incision through ligamentum patella is preferred.

For external support, preference is given to plaster of Paris, extending from the toes, and including the pelvis, holding the foot at right angles.

For at least a year or more, the unprotected leg should not be allowed to bear the weight of the body.

It is better to remove the patella, as it serves no useful purpose.—Charles L. Scudder, in *Boston Medical and Surgical Journal*, August 2nd, 1894.

## TREATMENT OF CONGENITAL DISLOCATION OF THE HIP.

Shortening increases with the increase of age. Of cases examined shortening in the second year averages  $\frac{5}{8}$  inch; in the third year,  $\frac{5}{8}$  inch; in the fourth year,  $\frac{6}{8}$  inch; in the fifth year,  $\frac{7}{8}$  inch; in the sixth year,  $\frac{9}{8}$  inch; in the eighth year,  $\frac{1.3}{8}$  inch; in the twelfth year,  $\frac{1.2}{8}$  inch; and in the fourteenth year,  $\frac{1.5}{8}$  inch. The limp, also, pretty generally increases with growth. Lordosis is generally a conspicuous deformity, very distressing, and generally giving rise to considerable pain in the lumbar spine.

In children under ten there is a choice of treatment, either by the older palliative or instrumental method, or by Hoffa's operation. After ten Hoffa's method is not to be employed, but Kiomisson's treatment by sub-trochanteric osteotomy. Cases treated by extension and a walking brace have all relapsed when the apparatus was removed. Max Schede, however, claims to have cured four cases by extension and brace, when treatment was commenced under eighteen months, and continued from one to four years.

Several cases of cure are reported by Lannelangue's method—the subperiosteal injection of a 10 per cent. solution of chloride of zinc for the purpose of exciting a bony growth at the site of the injection, the leg being kept continually extended and immobilized for some months, so as to maintain the head in good position.

The writer's concluding observations are :

The number of perfect cures is very small.

The number of cases improved is large.

The results in double dislocations are not so favorable as in single.

The lordosis is generally corrected.

A slight spinal curvature generally persists, owing to the atrophy of limb and pelvis.

The limp persists to some degree always, though, if the posterior dislocation is relieved, a high shoe will correct this limp almost, if not quite, perfectly.

When we consider that these cases will certainly become more and more deformed as they grow older, that one-third of them will have repeated attacks of pain and disability, and that many cases are reported where patients are rendered helpless by the flexion and adduction of their limbs, it seems to me that we ought no longer to send them away without treatment. The mortality of Hoffa's operation is less than it is generally believed to be. The improvement in technique has made it much easier and more rapid, and the results are improving. And, better still, Paci has made it possible, by his rapid method, to treat many cases who could not afford the time and attention demanded by the older methods.

In view, then, of these good results, and the even more promising character of the latest reports, we may undertake the treatment of these cases with the assurance that we can benefit them very materially in a comparatively short time.

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#### THE TREATMENT OF RICKETY BY MEANS OF OSTEOCLASIS.

In the *Brit. Med. Jour* (Aug. 25, 1894) R. W. Murray, F.R.C.S., deals with the treatment of crooked legs occurring in children under five years old who are rickety, or in markedly rickety children a few years older. Treatment by at once fracturing the curved bones and subsequently putting them in splints or plaster of Paris is strongly urged. The author has applied this treatment on 311 legs during 1893. His treatment of the knock-knee cases is the same as in the case of curved tibiae. A green-stick fracture is produced, and correct position secured. In no case have instruments been used to produce fracture except the operator's hands. The objection urged to the application of fracture to knock-knee cases—that there was danger of producing separation at the epiphysis, and, consequently, interference with the growth of the limb—is not well taken, for the author has made it a practice to examine carefully an exact point of fracture, and finds that it almost invariably occurs quite one inch above the epiphysal line. In several cases the knock-knee was corrected on one side only, and eighteen months after no difference in growth was found. The disadvantages connected with the gradual straightening by splints and rest in bed are many. The time required, difficulty in adaptation of splints if child is at home, difficulty in keeping the child off his feet, and in addition there is the uncertainty of the result. The operation is absolutely free from risk, no mishaps occurring in the long list treated in this way. If fracture cannot be produced by simply using the hands, the author advises cutting the bone with a chisel instead of using extreme force by other means.

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#### CONGENITAL TUBERCULOSIS.

In Berlin *Klin. Woch.* (July 9th, 1894) a case is related by Lehmann. A phthisical mother gave birth to a child, and died three days after from tubercular meningitis. The child lived twenty-four hours. In its liver, spleen, and lungs nodules exactly resembling tubercles were found. Tubercle bacilli were present in large numbers. The disease was more advanced in the bronchial and mesenteric glands. The placenta was, unfortunately, not examined. Whether the general tuberculosis was a new infection from the mother or from the older lesions in the glands could not be determined. The rupture of a tuberculous focus into the placenta into the fetal circulation is possible.

IMPERFORATE ANUS. OPERATION NINE MONTHS FROM BIRTH.  
RECOVERY.

Henry Strachan, of Kingston, Jamaica, reports the following interesting case, which was under his care in the Kingston Hospital (*British Medical Journal*, August 18th, 1894):

J.B., æt. 9 months, had never passed a stool, but the mother had noticed that fluid fæcal material in small quantity passed away from the "front passage." There was never any "back passage." The infant had only begun to suffer during the past two or three weeks.

It was found that there was an imperforate anus; deep pressure did not define the rectum, but a fistulous canal, just large enough to admit the passage of a small director, led from the fourchette, upwards and backwards, to what was evidently the blind end of the rectum. The abdomen was distended, and evidently tender, but the general condition was not grave. I decided to operate from the anal site.

*Operation.* An incision was made in the pigmented spot of skin which occupied the usual position of an anus, and a careful dissection reached the end of the rectum, which was about an inch from the skin surface, without opening the peritoneal cavity. The gut was incised with scissors, and the wall of the rectum brought down and stitched to the skin. An enormous evacuation of solid and semi-solid fæces followed. The child made a rapid and perfect recovery.

*Remarks.* The case is interesting as showing how long an infant could exist, passing only a little fluid fæces daily, through a fistulous passage about the size of a crow quill. It was only when the accumulation of gradually solidifying fæcal matter began to extend the abdomen that any symptoms of obstruction manifested themselves, and this not until the child was nine months old. The rapid and complete recovery is satisfactory, for the mortality following this operation is usually high. Perhaps the greater age and development of the child at the time of operation placed it in a better situation for recovery than obtains in infants operated on when only a few hours or days old.



## Editorials.

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### THE ANNOUNCEMENT.

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THE announcement of the College of Physicians and Surgeons has at last come to hand. It is simply a reprint of the matter that has already appeared in the *Ontario Medical Journal*. It is undoubtedly a disgraceful piece of work—an imposition on the profession; the presswork, composition, paper, and binding are of the cheapest possible kind. The cover is on paper of the poorest quality, while the body of the book is on that commonly known as “tea paper.” The cost of the announcement this year, allowing 2,300 copies to be printed, could not exceed \$250, while the book as sent out, in two columns, with the same matter that had already been used in the *Journal*, could not exceed \$135. These are fair and accurate figures, and we would be willing to duplicate the job at these figures. But no, we would not turn out such a job with the imprint of our office. This plan of using the matter from the pages of the *Ontario Medical Journal* was attempted last year, but the President, in the presence of the writer, simply said that he would not allow it. How does it come that such a disgraceful thing is allowed this year?

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### THE PATRONS AND THE MEDICAL PROFESSION.

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WE regret exceedingly that the Patrons of Ontario, in framing their platform, should have seen fit to attack the existing status of things medical. At a meeting recently held in Toronto they attacked certain clauses of the Medical Act, but especially one which gives the Ontario Medical Council power to suppress quacks and quackery. There can be scarcely any doubt that farmers suffer more than any other class in the community from dishonest and fraudulent medical fakirs. It seems marvellous, therefore, that they should lend themselves to certain unscrupulous physicians who desire free trade in medicine in order that they may have free license to bleed to the utmost an unsuspecting and gullible public.

We have no desire to quarrel with the Patrons of Industry ; as a matter of fact, we entertain a high respect for them. They have among their members a large proportion of honest and intelligent men ; they are undoubtedly desirous of introducing reforms which they honestly think would be in the interests of this country ; they are thoroughly in earnest, and well organized. If they will carefully study the attitude of the medical profession, we think they will find that a majority of reputable medical practitioners cordially sympathize with their aims and aspirations. Why is it that they seem inclined to ignore the great mass of respectable physicians, and work in the interests of unscrupulous quacks and charlatans—the worst sort of blackguards that can prey on any mixed community?

We trust the leaders of the Patrons will study this subject very carefully. We have a system of licensing physicians which has no superior in any part of the world. It is considered by conservative Great Britain as probably the best in the world, but cannot be copied there on account of the opposition of certain universities and corporations which will not agree to give up their rights. A high standard of education in medicine furnishes the best possible guarantee of honesty and respectability on the part of physicians, and safety for all who are placed under their care. We believe the Patrons have no desire to make a decidedly retrograde movement. They have listened to arguments which have been used for ages in the interests of fraud and humbug, without apparently studying the subject in all its aspects, and without considering the consequences which might follow if certain proposed amendments were adopted. If the Patrons are determined to interfere in medical matters, we hope they will freely consult physicians of high standing and unquestioned honesty—and not needy adventurers who have become professional pariahs on account of disgraceful and dishonorable conduct.

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#### THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNÆCOLOGISTS.

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THE recent meeting of this association, held in Toronto, September 19, 20, and 21, was the best purely medical meeting that ever was held in Canada. There may have been better in other parts of the continent, but we have no knowledge of such. The provisional programme, which we published in our August issue, gave rich promise of something beyond the ordinary, and created unusually high expectations among those acquainted with the history and the personnel of the society in the past. The highest of such expectations, and perhaps more, were fully realized, as was generally acknowledged by those present.

We understand the attendance of the Fellows of the association was larger than at any previous meeting. An inspection of the programme gives evidence of a somewhat broad geographical area which furnished the visiting members for this meeting, including New York, New Jersey, Massachusetts, Pennsylvania, Ohio, Michigan, Illinois, Indiana, Kansas, Maryland, District of Columbia, Missouri, Kentucky, Alabama, and Ontario. It was expected that California would send a representative in the person of Dr. Clinton Cushing, of San Francisco, but, unfortunately, this gentleman was unable to complete his arrangements for the journey.

The Fellows evidently came to work, and not to play. The various sessions were opened *on time*—not an hour or even a few minutes late—and were closed generally *after time*—the next day on one occasion. The session on Wednesday evening continued from eight o'clock until after midnight, without a minute of intermission. The papers were of a high order, and the discussions, as a rule, were keen, vigorous, and interesting. Many members of the profession in Toronto, and various parts of Ontario, accepted the general invitation extended by the association, and took a deep interest in the proceedings of the meeting. There seemed to be a general consensus of opinion among such visitors that they were attending a great meeting. As these visiting physicians had no opportunity of giving expression to their feelings in this direction, it may not be out of place for us to say that they, one and all, freely expressed themselves, in private, as being extremely grateful to the association for holding the meeting in Canada, and, at the same time, extending to them such a cordial invitation to be present.

We have much pleasure in giving in this issue a somewhat extended, although far from complete, report of the proceedings. The officers of the association did their work well—or more than well. The president, Dr. George Rohé, of Catonsville, Md., showed himself to be a model chairman; the vice-president, Dr. G. F. Hurlburt, of St. Louis, Mo., was an efficient assistant; the secretary, Dr. William Warren Potter, of Buffalo, excelled himself, if such be possible, in the performance of his very arduous duties, and allowed nothing in the shape of a hitch to occur from beginning to end. In fact, the officers, the members of the council, and the ordinary members worked together with an evident intention of making the meeting a grand success—and they succeeded.

#### THE LOCAL ARRANGEMENTS FOR THE MEETING.

The preliminary arrangements and the details as to place and management of the meeting were left in the hands of the local committee of arrangements. The officers of the Ontario Medical Council very kindly placed their hall and committee rooms at the disposal of the association.

The council building, being centrally situated, and well arranged, made an admirable place of meeting for a society limited in numbers as this is.

The officers of the association showed such a desire to make the most of the time allotted for the various sessions that the physicians of Toronto were prevented, to some extent, from paying as much attention to the visitors as they desired. The Fellows present, however, expressed themselves as more than satisfied with the treatment they received. The session of the first afternoon was closed one hour earlier than usual to allow the Fellows and friends of the association to accept the hospitality of Dr. Jas. F. W. Ross, of Toronto, who entertained the party on the steam yacht, *Cleopatra*, which went out for a short cruise on the lake. A most enjoyable time was spent, and the association more than made up for the time lost by a very long and exceedingly interesting evening session.

The preparation for the annual dinner, which was held in the handsome building of the Athletic Club, was left entirely in the hands of the local committee, the members of which feel very much indebted to the officers of the club and numerous members of the profession of Toronto for kind support and substantial assistance in many ways. The dinner was a success in every respect, and is likely to be long remembered by those who were present. The guests of the evening, the Lieutenant-Governor of Ontario and Professor Goldwin Smith, were especially happy and felicitous in their after-dinner speeches. Our friends from the neighboring republic did most of the talking—and they did it well. Their speeches were bright, racy, and witty, with just enough of the solid to balance things happily. Although speeches from Canadian doctors were few, we had one from our dear old friend, Dr. Harrison, of Selkirk, which was worth a great deal. It contained a combination of comedy and tragedy which was peculiarly effective. The doctor related many anecdotes in connection with his country practice which were irresistibly funny; but when he turned to the dark side of the picture, his truly pathetic narrative of the troubles and afflictions of one of his farmer patients, who had at one time on his hands a sick wife and a dilapidated threshing machine, literally brought tears to the eyes of many present—from immoderate and uncontrollable laughter.

#### MEMBERS BY INVITATION.

We have already referred to the interest evinced by a large number of visiting members of the profession from various parts of the province, including Toronto. We are glad to be able to say, at the same time, that the Council and Fellows of the association were much pleased with the attendance of so many visitors, and the great interest which they manifested in the proceedings. One of the most prominent Fellows thus

expressed himself in a letter since he returned to Philadelphia: "I was greatly pleased with your physicians, and they paid the society a great compliment by attending the meeting in large numbers." Similar opinions were freely expressed by many of the Fellows during the meeting. It has been found that an interested and sympathetic audience furnishes the healthiest sort of stimulus for free and vigorous discussion at meetings such as this.

It may be well to inform the president and council that, if they intend to hold another meeting of the association in Toronto in the near future, it may be necessary to restrict the number of invitations, or provide a larger hall.

## Correspondence.

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To the Editor of THE CANADIAN PRACTITIONER :

DEAR DOCTOR,—I once more take advantage of your invitation to write you and thus renew my relations with the medical profession of the province.

I have now spent more than a year in this land, and while I have done a good deal of hard work I have enjoyed it very much. The language is difficult, and we must spend as much time with our teacher as possible, besides talking with the people and listening to them in order to get our ears and tongues trained to the odd sounds and articulations. It is sometimes difficult to make a diagnosis when you are unable to understand the answers given to your questions.

I presume you have noticed in the newspapers references to the present disturbed state of Korea, and if you have thought of the matter at all you will have concluded that we are in a dangerous place. However, it is not so bad as it appears to our friends at a distance, and we are still all alive and well.

In my previous letter I spoke of the Government Hospital, and my hope that it would, in time, develop into something I could be proud of. You will perhaps be surprised to hear that after six months' trial I gave it up as a bad job, as I found that it was being run by the government only as a means of putting money into their own pockets, and that there was no hope of getting them to supply either drugs or food, or even to put the rooms in repair. I was very sorry it was so, because the place was large and centrally located on the side of a hill, and patients were sufficiently numerous to satisfy the desires of any man for work. When I began I treated less than ten patients per day, but before I left I saw as many as fifty-three out-patients in one afternoon, besides dispensing all their medicines, attending to in-patients, and visiting others at their homes. Many of the cases required operation, and every afternoon I performed several.

Fistula in ano is very common, and I have cut as many as four in one day one after the other, and have more come the next day and the next. Some of these were of long standing, and had several openings situated from half to one and a half inches from the anus. If they were very deep

or the patient was very sensitive, I injected cocaine, but oftener the cutting was done without an anæsthetic. After laying the sinuses well open, I cleansed them thoroughly, packed them with a mixture of iodoform and boric acid, put on a pad of absorbent cotton, gave the patient one grain of opium for each night and morning for three days, and then sent him home, with directions to come every day for a little while to have it dressed. They nearly always walked home and back, but in spite of this lack of rest the cases did surprisingly well, all healing nicely in a very short time. I have not been able yet to determine why this disease is so prevalent here. Some say it is because the Koreans sit on warm stone floors a good deal, and thus tend to produce congestion of those parts. Sometimes I have thought the sinuses resulted from syphilitic abscesses. A longer period of observation may throw light upon the cause.

Another common disease is suppuration of the glands of the neck and axilla. They came to the hospital at the rate of half a dozen a day, and such exaggerated cases I never saw in Canada. There was evidently only one thing to be done for most of them—to evacuate the cheesy pus, scrape out the cavities thoroughly, remove all the affected glands possible, and dress with iodoform and boric acid, at the same time giving fair doses of iodide of iron or cod liver oil. These cases, too, although tedious, did well enough to repay the surgeon for all his trouble. I was surprised at the equanimity with which most of the patients bore this cutting and scraping. At first I administered chloroform, but this required so much time, not having a helper, that I had to give it up and do the best I could without an anæsthetic. It was not pleasant to me to make such extensive cuts under such circumstances, but I gradually got used to it. In one case I opened an abscess by a cut extending from the middle of the neck in front, upwards, outwards, and backwards to the mastoid process. The patient squirmed, used the usual Korean exclamation, and then thanked me.

One day a man came to the hospital from the far north, about two hundred and fifty miles from here. When a boy he had had smallpox, accompanied by ulceration of the nostrils, the openings into which had thus been completely obliterated, so that he could only breathe with his mouth open. I injected cocaine, cut through the adhesion, and, having nothing better, cut two pieces of bamboo and inserted them into the nostrils to keep them open and still allow him to breathe. He was greatly relieved, they healed nicely, and he went home and sent down a friend of his who was similarly afflicted.

Another young man was brought in whose mouth had been so ulcerated when he had smallpox that his cheeks had become adherent to his jaws on both sides above and below, so that he could neither, of his

own will nor by force, open his mouth so as to allow more than one-eighth of an inch of space between his upper and lower teeth in front. He had always lived on liquid food. I injected cocaine, cut the adhesions, and set him free, but it was a very difficult piece of work, and I am sorry to say I lost sight of him before healing had taken place, and I fear adhesions may again form.

I had one case which I diagnosed as sarcoma of the antrum, but it had already caused such extensive destruction of the bones that operation offered no hope of relief, so I declined the case.

One man came with epithelioma of the scalp. I declined to operate, as he was already suffering from marked constitutional symptoms, and I received word a few months later of his death. I had not previously seen epithelioma in this location. Is it not rather uncommon? I have had two cases of noma within the year, both far advanced and beyond hope of relief. It is a moderately common disease here.

As I hinted before, eye diseases are amongst the most numerous, and some of them are very interesting. One elderly man came from the north country with his eye protruding about two inches, the ball, of course, uncovered, inflamed, and suppurating. I enucleated the remains of the ball, and found a solid elastic tumor attached to and apparently springing from the optic nerve. This I removed, and the case did well. Soon afterwards a man came from the southernmost province of the country with one eye projecting very much, and at the same time turned outward, so that he appeared to look at his ear. I made an incision through the upper lid, and removed a fatty tumor three inches long and one inch thick, shaped like a sausage. It had apparently grown from the eyelid, as it was attached to it, and had gradually forced its way past the eyeball, displacing it forwards and outwards. The optic nerve and vessels had gradually elongated, and sight had remained good. When he left the hospital the eyeball had only partially returned to its place, and vision was only partial, but was improving.

A very common disease here is relapsing fever. Of course I had not seen any cases at home in Canada, and so when I saw it here I was at first puzzled as to what name I should give it. The natives know it and dread it, and the victims are generally turned out of doors to do as best they can. If we walk outside the city walls we can generally see many such sick people lying in the shelter of the wall, waiting for death or recovery, while others may be found lying under straw huts. Money was intrusted by home friends to Rev. Dr. Underwood to erect a hospital for the reception of such patients, and last spring he bought a beautiful site on a hillside outside the city and asked me to take charge of the work. We have now a comfortable Korean building there, and from the first have had all the



patients we had room for. During two months we received and treated forty-five cases, with only one death.

The symptoms answer exactly to the description of relapsing fever as given in the text-books, except that no mention is made of epistaxis, which occurs in the patients here in nearly every case just before the crisis.

I have not yet examined the blood for spirilla, my microscope not having been in shape, but I intend to do so very soon, and, of course, that will settle the identity of the disease if I find them.

Some of the cases do not relapse, but many do, some once, some twice, and I have been told they occasionally do so several times, though I have not yet seen such. It is a very painful disease, the patient suffering much the same as with la grippe, but even under antipyretics there is seldom any mitigation of the symptoms until the sixth day, when the crisis commonly occurs, and immediate relief follows a profuse perspiration. If relapses occur, recovery of strength is apt to be slow, and several times I have observed pneumonia and nephritis as sequelæ.

My usual treatment has been (a) a good cathartic, (b) phenacetine in 10 gr. doses to relieve pain, and (c) a mixture of quinine and nitro-muriatic acid, as in typhoid fever; accompanied by as much easily digested nourishment as the patient can take. One of the physicians here administered a cold bath, followed by sweating by means of a hot room, and pilocarpine, thus endeavoring to anticipate the crisis. Relief of symptoms appeared to follow, and I tried it at "The Shelter," as our place is called, but while relief followed for a few hours the symptoms all returned, and the crisis came at the usual time.

There is another fever here which the Koreans call by the same name as above, but of which they are still more afraid. I have not had any cases of it yet, but they say the patients are covered with small red spots, and they very often die. I presume it is typhus fever from the description given. I think the one case which I said above died in our hospital was of that type, though I am not sure, as I was away when she was admitted, and for some days afterwards.

About the first of May I received a request to go see a sick man about sixty miles from here. The messenger had been between two and three days reaching me, as he came on foot. I started next day on horseback, accompanied by Rev. Dr. Underwood, and we were nearly three days making the journey, as the road was bad and we were delayed by a heavy rain storm. On arriving at the place we found the man had already died. This was of course a disappointment, but it is an incident of life in such a country as this. We remained in the town from Friday morning till Monday morning and treated many patients, our little 8x8 foot room being

surgery and dispensary combined. It was the first visit of a foreign physician to that neighborhood, and we were objects of great curiosity. There and *en route* I treated about eighty patients, and while I was engaged in this work Dr. Underwood talked with the assembled crowds, telling them of Christ.

On our way back we were greeted by those whom I had treated, and I found, to my satisfaction and theirs, that all had improved in the meantime. One laughable incident occurred. I had operated on a man for fistula in ano, to the delight of the assembled onlookers, to whom surgery was a new thing, and on my return I was told the patient was just about to die, being in great suffering and unable to eat. I was led to his room, which, of course, was stuffy as it could be and full of sympathizers, and after examining the wound, feeling his pulse, looking at his tongue, and doing all the other things necessary to satisfy their minds, I told him he was doing well, and that he would not die. At this his long face shortened, and a few minutes afterwards, as I was on the street mounting my pony, I noticed my friend amongst the crowd, laughing and seeming quite happy. On enquiry, he said he was much better and had no pain. So, you see, it is not only in highly civilized Canada that mental impressions make people sick, and the assurance of the doctor that all is well serves to remove alarming symptoms.

About the first of June I received a telegram from Fusan, asking me to visit Dr. Irvin, who was very ill. Now, Fusan is a port on the southeast coast of Korea, and can be reached in eight to ten days overland, or in two days by steamer, round the coast. To my delight, I found a special freight steamer was to leave Chemulpo the next night, and would call at Fusan. I say to my delight, because an eight days' forced ride either on horseback or in a sedan chair, over the mountains of Korea, would have been no joke, the more especially as the road leads through the province where a rebellion was then going on, and, besides, my patient might have died in the meantime. Well, that night, having got the symptoms, I telegraphed directions for treatment, and next morning set out on horseback for the port of Chemulpo, twenty-seven miles distant. I reached there at 5 p.m., and found that the boat would not start till next day at 11 a.m. That meant twelve hours' delay. At 11 a.m. we weighed anchor and were gliding along nicely, when all at once the boat came to a standstill, and we found we had run on to a hidden mud bank, so common in this harbor. The boat was heavily laden with rice, and could not be moved either forwards or backwards; and, to add to our dismay, we noticed that the tide was going out, and we should certainly have to wait a whole day at least. The rest of that day was spent in unloading the rice on to lighters, about one hundred coolies being used in the work. We then lay and waited for

the incoming tide to raise our lightened boat off the mud, which it did about 2 a.m., and we sailed out of the harbor and cast anchor in deep water. Next day the rice was reloaded, and about 2 p.m. we made another start. We then had a fine sail down the coast amongst the innumerable islands, but on the last morning the fogs were so dense that we had to anchor three times, lest we should unintentionally strike on one. At last Fusan harbor opened before us, and on Friday morning I reached my patient, having been summoned on the previous Sunday. I found him suffering from relapsing fever, and just past the crisis. He is only the third foreigner I have known to have contracted that disease here. He continued to improve till the fourteenth day from the commencement, when he relapsed. I remained with him for nine days, and then started for home, where I arrived safe in due time, after an absence of fifteen days, during which I had been unable to send any message to my home, as the telegraph lines were down, and no boat had been running. Such is life in Korea.

But now, as usual, I am spinning my yarn too long, and I haven't yet said anything about the war.

A rebellion broke out in one of the southern provinces last spring, and the government, being unable to suppress it, asked the Chinese to help them. They sent over about 2,000 soldiers, who, however, accomplished nothing. A treaty made some years ago between Japan and China forbade the landing of troops here by either of those nations. So the Japanese, having already some causes of quarrel with Korea and China, took advantage of this violation of treaty, and in the middle of June began sending in forces; at first only a few, but every few days more and more came, until there were several thousand here, and they gradually took up points of vantage until they occupied every place where a force might be necessary in case they met with opposition.

The Koreans are utterly unprepared to fight with any other nation, and so no opposition came from them, except protests. The Japs demanded the complete separation of Korea from China, asking the Korean king to proclaim Korea's entire independence, and China to acknowledge it. China refused to do so, and the poor Korean king was in a tight place. His country already occupied by a strong force of Japanese demanding a certain thing, there seemed no way out of the dilemma but to accede to the demand. On the other hand, if he should make the proclamation, doubtless China would severely punish him. Which should he fear most? Which would most likely win—little Japan, with a well-disciplined army and a small but excellent navy, or great China, with its 300 millions of people, and its somewhat poorly-trained army and navy? About five weeks passed, during which the Korean government parleyed with the Japs, but gave no

answer, while the Japs fortified all the approaches to the capital, and a small force of some 1,500 Chinese landed and joined the 2,000 already here.

Saturday evening, July 21st, the Japanese consul gave an open-air concert by the army brass band, to which he kindly invited our community. This was, of course, an unusual event here, being the first opportunity there has ever been here to listen to such an orchestra ; so many attended. It was noticed that a great many Korean officials were present, and those of our number who were there were struck by the friendliness that seemed to exist between them and the Japanese consul. I mention all this only to emphasize the fact that the following Monday morning at 5.30 we heard a rattling fire of musketry, and soon discovered that it was in the neighborhood of the palace. The war had at last begun, and the Japs were going to get possession of the king and capital at the first stroke. As soon as I could, I got to the top of a hill which separates our house from the palace, but in time to see only the last of the firing. In half an hour from the first shot the palace was captured and the king taken prisoner, while at the same time all the city gates were seized, and the Japs were masters of the situation. In the afternoon another battle was fought within the city, by which the Japanese were able to occupy the Korean barracks, and they then disarmed all the Korean soldiers.

It has been impossible to learn how many were killed and wounded. I have seen quite a number of the Korean wounded, but the Japanese have a competent ambulance corps and staff of surgeons, so that they care for their own wounded, and others as well. I will describe a few of the cases and the results. You will probably smile as you notice that nearly all were shot in the back, evidently in the act of running away ; but, poor things, they are not to be blamed, for they have inferior arms, and are almost devoid of training.

CASE 1. Shot in the back close to spine. No trace could be found of bullet, but he complained of abdominal pain, and there was a little tympanitis and a temperature of 100° to 101° F. He was given opium and kept quiet for a few days, when he had a movement of the bowels and passed the bullet, which was turned inside out and very ragged. He gradually improved, but is still in the hospital, and complains somewhat of pains in the abdomen. His pulse is good, but his temperature occasionally goes up to 100° F. and then down again. He eats fairly well, but says it gives him pain. At one time we discussed the advisability of opening the abdomen, but he improved so it was not done.

CASE 2. The ball entered the back of the neck just behind the edge of the sterno-mastoid muscle, and, passing forward and upward, tore its way through the lower jaw, breaking it into small fragments. Continuing its

upward course, it split the tongue horizontally, passed through the middle part of the upper alveolus, breaking it into fragments, and then escaped through the lips, tearing them very much. I sutured the main parts of the lower jaw with wire, cleansed the wound as thoroughly as possible, sutured the external tears, and bound up the shattered jaw as well as I could. He was unable to swallow, so he has been fed most of the time per rectum. Considerable fever followed after a few days, so the wound was syringed out from behind and he improved again, but during the last two or three days he has become feverish. Ultimate result is as yet uncertain.

CASE 3. Ball entered at the back of elbow, shattered the ends of the ulna and radius, and passing out in front tore the flesh about  $1\frac{1}{2}$  inches each way, in four directions. It was at first decided to amputate at once, but we decided to cleanse it and dress it, as the blood and nerve supply seemed to be sufficiently good to make it worth while to try to save the arm. I am sorry to say this estimate of the blood supply was incorrect; the hand next day was cold and circulation very feeble, and, although we tried hard to keep it going, it had entirely ceased on the second day, and we amputated above the elbow. It has done well, and he is nearly better now.

CASE 4. Was shot through the scapula, and, passing through the left lung, the ball remained just beneath the skin in front of the chest, where it could be felt by the finger. I had no hand in the case, but have seen it frequently. The ball was left in situ for several days, and then removed by cutting through the skin. The lung wound has healed well, but necrosis of the scapula, I am told, has set in. The patient was not seriously inconvenienced by the wound in the lung.

I might go on enumerating a good many of these, but I fear you would weary of them, so I must close.

Before doing so I will mention one case I had. A man, while in a drunken frenzy, cut his throat with a large knife. The wound, which was three inches long, partially severed the trachea. When he reached the hospital air could be heard whistling through the opening, and all the cellular tissue of the body crepitated under the hand, being filled with air. He was very fat, and noticing that when I tightly closed the wound no air escaped I sutured in that position, and it healed by first intention, no further trouble with the trachea being experienced.

The war still continues. We are yet safe and comfortable, receiving most courteous treatment at the hands of the Japanese, who practically hold the country at present. They have utterly defeated the Chinese force that was here, the result, as far as we can learn, being seventy Japs killed and 750 Chinese killed, besides wounded and prisoners. They have sunk and captured several Chinese gunboats and one transport that was carrying 1,500 Chinese soldiers.

The constitution of the country is now being revised, many grave abuses being reformed; but, of course, how it will all turn out, or when it will end, we know not. We understand that the Japanese have taken a strong force to Tientsin, with the idea of following the English precedent of storming the Chinese capital of Peking.

I must apologize for such a long letter, but, you see, when one gets to narrating his cases and describing things of such interest to us as the present war, he forgets that to others they may not be so full of interest. Please publish as much of this as you may feel inclined to do.

The weather has been hot, but is now moderating, the nights being quite cool.

Seoul, Korea, August 9, 1894.

O. R. AVISON.

August 20th. Many thousands of Chinese soldiers have entered Korea from the north, and are now within 150 miles of Seoul. A strong Japanese force is now on its way to meet them, and we expect several battles will be fought within a few days. On the result will depend whether the Chinese can come to Seoul or not.

O.R.A.

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#### ACKNOWLEDGMENT OF THANKS.

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To the Medical Electors of No. 1 Division :

GENTLEMEN,—Allow me to take this method of returning you my most sincere and heartfelt thanks for the confidence reposed in me and for the generous support you have accorded me during the past fifteen years as your representative in the Medical Council of Ontario, and for again electing me to that honorable position for the fourth time, by acclamation, and that, too, in the face of strenuous opposition and fierce attacks made on me and against the retiring council by Drs. Sangster, Armour, Lammiman, Hillier, and other members of the Defence Association, not only through some of the medical journals, but in the secular press, more particularly the *Mail* and *Farmers' Sun*, both of which have sought to destroy the council and defeat all its old members. You have shown by re-electing me that your sympathies are not with these agitators, who would, by their writings and through the influence they wield over such papers as the *Mail* and *Farmers' Sun*, and with their assistance, reduce the profession to the position it was in before the Medical Council was established, and leave the public a prey for the illiterate and hungry fakirs and quacks that swarmed this fair province prior to that time, and would again do so if it were not for the wholesome check which the present council has over such characters. While some acts of the past council may not have met with your entire approval, yet their course, as a whole, has done so, and I can assure you it has been my aim, as well as that of my col-

leagues, to raise the standard of preliminary and medical education, to stamp out quackery and uphold the honor and dignity of the profession and elevate its standard, and by so doing confer a lasting benefit on the general public. Therefore, I would earnestly urge those in other constituencies who have the opportunity to support any of the old members, as well as others, opposed to supporters of the Defence Association who may be seeking election to do so, as I feel confident the interests of the profession will be safer in their hands than in those who are opposing them. Again thanking you for past and present favors, and assuring you that my course in the past shall be a guarantee of my conduct in the future, believe me to be,

Yours gratefully,

JOHN L. BRAY, M.D.

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TESTIMONIAL TO SIR JOSEPH LISTER FROM FORMER  
COLLEAGUES, PUPILS, AND WELL-WISHERS.

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To the Editor of THE CANADIAN PRACTITIONER:

DEAR SIR,—Sir Joseph Lister having recently retired from active hospital and teaching work, the occasion has been thought appropriate for presenting him with a testimonial of the esteem in which he is held by his former colleagues and pupils, and committees have, therefore, been formed in Glasgow, Edinburgh, and London, for the purpose of raising the necessary funds.

It is proposed that the testimonial shall take the form of a portrait. Subscriptions have been limited to two guineas, and it is hoped that sufficient funds will be collected to permit of some memento of the occasion being presented to each subscriber of that amount.

As there are probably many surgeons in Canada who may wish to join in the movement, but whose names and exact addresses it has been difficult to ascertain, I should be glad if you would permit me to state that subscriptions may be sent to me at 29 Weymouth Street, Portland Place, W. London, England, or to one or other of the following gentlemen, who have kindly consented to act as treasurers, viz.: Dr. James Finlayson, 4 Woodside Place, Glasgow; Professor Chiene, 26 Charlotte Square, Edinburgh; Professor William Rose, 17 Harley Street, London, W., England; Dr. Malloch, 124 James Street South, Hamilton, Ont.; or Mr. J. Stewart, M.B., Pictou, Nova Scotia.

I have the honor to remain, sir,

Yours faithfully,

J. FREDERICK W. SILK,

P.S.—Two guineas are about \$10.23,

Honorary Secretary.

# Meetings of Medical Societies.

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## SEVENTH ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNÆCOLOGISTS.

Held in the Council Chamber, College of Physicians and Surgeons, Toronto.

THE American Association of Obstetricians and Gynæcologists held their annual meeting in the building of the College of Physicians and Surgeons, Toronto, on September 19th, 20th, and 21st. There was a large attendance present, both of members and visitors. The chair was occupied at the opening of the session by Vice-President Dr. George F. Hurlburt, of St. Louis, Mo.; Dr. W. W. Potter, of Buffalo, secretary.

Dr. James Thorburn, on behalf of the profession in the city, welcomed the members of the association to Toronto.

The first paper was read by Dr. J. H. Carstens, of Detroit.

### THE INCISION IN ABDOMINAL SURGERY—METHODS AND RESULTS.

In opening his remarks, he asked why it was that in many patients after an abdominal operation, when the precautions of remaining a long time in the recumbent position and wearing a bandage for a considerable time were taken, hernia followed, while, on the other hand, the patient might get up early and not wear a bandage at all, and yet no hernia follow. The method of closing the wound was the main cause. So long as the *en masse* suture was made, so long would there be danger of hernia. The making of the incision was very important. Clean sweeps of the knife should be made, no haggling, so that there would be the minimum amount of injury done to the tissues. After getting down to the peritoneum, the first two fingers should be introduced as a director. If the incision be exploratory, it should be short. Catch forceps he rarely needed to check the hæmorrhage in the wound. One-half minute should suffice to make the incision. As a ligature, he preferred the kangaroo tendon. A needle holder was unnecessary. The next was the important point, the plan of stitching in tiers, first, the peritoneum; then the edge to edge approximation of the tendinous insertions



of the oblique muscles with a running stitch, this being the important row in this method of stitching, for securing the future integrity of the abdominal wall ; then a few stitches through the fatty tissue ; then a row through the external tissues approximating the skin, this being made with the buried suture. If there was any suspicion of dirt on the wound it should be cleansed, sealed with collodion, and left undisturbed for ten days. The patient might sit up on the eleventh day, walk on the twelfth to the fifteenth, and then be allowed to go home.

The essayist then explained how he would deal with ventral and umbilical hernia. In operating for tubercular peritonitis he uses the *en masse* suture and silkworm gut. This was because the animal suture was in danger of becoming infected with the tubercle bacillus. The perfect incision and the perfect closure would leave the patient in such a condition that he or she would never be obliged to wear a truss, or carry about a hernia which would be more distressing than the original disease.

Dr. Willis G. Macdonald, of Albany, said there were things in the paper that he could not endorse. In cases of appendicitis, where there was abscess formation, followed by opening and drainage with rubber tube or the introduction of iodoform tampons, he believed the essayist would not use this method of suture. In his (the speaker's) experience the greater number of hernias had followed such cases. It was difficult to avoid them in such cases. In Albany they used the through and through suture, and in looking over Dr. Vander Veer's tables of 145 cases he found less than five per cent. of hernia. The introduction of animal suture in surgery was not always as successful as it would seem. He had used kangaroo tendon and catgut for the radical cure of hernia, and he had seen a return of the hernia. And so far as the silkworm gut in the buried suture had been used, his success had been similarly somewhat unsatisfactory. Another objection was the time it took to introduce the different rows. Time was not to be lost in such operations. He thought, too, that on account of the difficulty of sterilizing the animal sutures abdominal surgeons would not soon give up the use of silk and silkworm gut.

Dr. Reed, of Cincinnati, said that he was gratified to hear that a perfect means of closing the incision had been arrived at. If perfection had been arrived at in this point, they would hope that perfection would soon be arrived at in other regards.

Dr. Carstens said that he had used the buried animal suture, and where there was danger of excessive intra-abdominal pressure, as in fat subjects, he would fortify the closure by the addition of the *en masse* suture. What warrant had the essayist that, by virtue of retching and vomiting after anæsthesia, any case was not going to be followed by extreme intra-abdominal pressure? The painful cicatrix was due to the deposit of inflammatory exudate and the unabsorbed suture.

Dr. Cushing, of Boston, said he had tried the buried suture, but had given it up because the greater number of the cases did not heal well where it was used. The extra number of punctures was another disadvantage in the tier method. In some cases, where the abdominal wall was very thick by reason of fat, he agreed that the fasciæ would be better approximated.

Dr. Fredrick, of Buffalo, did not like silkworm-gut suture because of the irritation of the sharp ends. Their use was often accompanied by suppuration, and they were difficult to remove. Such sutures were as unabsorbable as wire. In an experience with eighty-five cases he had fifty per cent. followed by collections of pus, which he had to drain and wash out. He thought the best results would be got from the use of three or four fine sterilized catgut sutures to coapt the edges of the fasciæ. He had never seen hernia follow in cases so treated. His bad cases were where he had used the buried animal suture.

Dr. Longyear, of Detroit, stood up in defence of Dr. Carstens. He thought one of the great features in the use of the buried animal suture was to prevent what the last speaker had found take place. The two great points to secure were to have a thoroughly aseptic wound and an aseptic suture. They had had four years' experience in the plan described by Dr. Carstens, with good results. There was no need of reinforcement by external suture. The buried suture, with the sealed wound, was enough. By using the *en masse* suture afterward there was danger of carrying in infection, and the same danger was present when they were withdrawn. The fasciæ must be firmly united, and this took from four to six weeks. Where the *en masse* suture was used and removed at the end of eight or ten days, the fasciæ would be most liable to give way when strain was brought to bear upon it. He had used the kangaroo tendon buried stitch in perineal work as well, and his convictions were favorable to it. If done aseptically, he believed it would always result in success, as it had in his practice. In the *en masse* suture there was danger of the edges of corresponding tissues doubling up and union not taking place. He had used the catgut, but had found that it was absorbed too soon, and often produced abscesses.

Dr. Maclean, of Detroit, thought it made little difference which method was employed, providing strict aseptic precautions were taken.

Dr. Tappy favored the plan of suturing in layers. He had sometimes been disappointed in the kangaroo tendon; but now he had it boiled in alcohol and afterward in bichloride solution.

Dr. Carstens closed the discussion. He claimed the *en masse* suture was uncertain; there was danger of pocketing of pus, and of hernia insinuating itself between the stitches. In suppurative cases where he used the

drainage tube he would use the *en masse* suture. As to punctures, there were no more by one method than the other. He admitted that the use of silkworm gut and the *en masse* suture might answer for the general practitioner, but the method he advocated was the ideal method for the experienced surgeon. He had had no hernias following this plan of closing the abdominal incision.

#### PLASTIC SURGERY IN GYNÆCOLOGY.

The next paper was by Dr. Joseph Price, of Philadelphia. "Perineal Operations" was the subject. He maintained that it was necessary to carefully study anatomy and physiology to successfully do gynæcological work. The mechanism of labor must be understood, and, if rupture of the perinæum took place, the lines of rupture must be appreciated. The perinæum always broke in well-defined lines, except where produced by instrumental violence. When from this latter cause, the wound must be treated as a lacerated wound anywhere else. The other wounds must be repaired in the lines in which they occur. Under the present abdominal régime plastic work was becoming a lost art. He opposed doing an external and an internal operation at one sitting. Surgery had not for its object the showing of the surgeon's endurance, nor how much the patient could stand without collapse. It was sufficient to remember that these tears were lateral, extending out under the rami of the pubes; or central extending from the vagina towards the rectum, tending to run round the rectum instead of through it. The tears of the vagina were from within out, and from above downward; therefore the skin operation for their closure was non-scientific. The operation should be done in the line of the destruction, and it should be commenced at the uppermost end of the tear. Operation immediately was to be done where the condition of the patient would be able to stand it. Silkworm gut was the most desirable form of suture. As little tissue should be included as possible, so as to avoid strangulation. When the sphincter ani was involved, the ends of the muscle should be brought together. This was Emmet's method, and, as a procedure, it stood pre-eminent. The technique was very simple.

Dr. Cushing believed that the methods employed for this condition ran into one another. The best part of the work was to be done in the vagina. A new perineal floor was to be made. Any operation which consisted in sewing up two or three inches of skin on the outside would not hold up the uterus. Where there was a tear at labor, the speaker advocated sewing up before the delivery of the placenta. In that way no time would be lost.

Dr. Heyd, of Buffalo, said that there was no operation practised that brought about the same results as Emmet's. From the description in the

book the operation was very hard to follow, but the difficulty disappeared when one once saw it done. It was the only operation that picked up the deep fascia and thoroughly restored the perinæum. If the operation could not be done at once, the wound would heal equally well even eight hours afterward. He thought it would be wise to wait this length of time in order to secure assistance to do a first-class operation if the sphincter ani were involved.

Dr. Cordier, of Kansas City, condemned the use of multiple operation for the relief of symptoms which would be relieved by an Emmet's operation. It had done its work better than any other operation.

Dr. Carstens advocated the repair of the cervix and perinæum immediately after labor, where it was necessary. If left later, he would advise stitching up the cervix, leaving the sutures in for five or six weeks; then sew the perinæum, and, after the wound was healed, he would take the sutures from the cervix. He advocated the same method of closure in the perineal wound as in the abdominal wound. If done with the buried suture the patient escaped pain, which was present if the other method were employed. Asepsis was necessary to a successful operation.

Dr. Potter, of Buffalo, said he was glad this subject had been revived. Lately it had not been noticed so much, on account of the special importance that abdominal section had been demanding. He believed obstetricians had been neglectful of the immediate repair of the torn perinæum. It was necessary that it should be properly done—done in a thoroughly surgical manner. If care were taken in preserving the perinæum, the abdominal surgeon would lose a good deal of his work.

Dr. Dunning, of Indianapolis, said he was sorry Dr. Price had not given his method of applying the stitch in cases of complete laceration. It was difficult to get perfect results where there was complete laceration; comparatively easy where there was but partial laceration.

Dr. Longyear, of Detroit, spoke very highly of the operation. By means of illustration he showed how in old lacerations the denuding was to be done, and how the retracted muscles were to be picked up, so as to restore the pelvic floor.

Dr. Glasgow, of St. Louis, called attention to the fact that if the perinæum were immediately attended to after labor, in the majority of cases, the secondary operations would not be required.

Dr. Davis, of Birmingham, Ala., thought the reason there were so many failures after the immediate operations was that the work had been done by inexperienced men. In every case of obstetrics the physician should have everything needed to do an operation on the perinæum. He agreed with Dr. Cushing that the stitches might be put in before the placenta was delivered. The operations of Emmet, Tait, and Martin practically

accomplished the same thing. Few men used the buried stitch successfully. He was glad that it had been brought out that pelvic troubles could often be prevented by repair of the lacerated cervix and perinæum.

Dr. Hoffman, of Philadelphia, pointed out that there was sometimes great difficulty in getting the patients to agree to the operation. In handling such cases, it was necessary that the medical man should have the perfect confidence of the friends. If he has this, he may do anything he pleases. One man in the discussion had spoken of the curette; but to say that every uterus that is lacerated needs curetting was ridiculous. If there was a show of sepsis, then it was time enough to curette. The cervical tears would shrink wonderfully. A tear half as long as the finger would not be over one-half an inch long in five hours, and in two weeks would hardly be noticed at all. Where there was persistent hæmorrhage after delivery, it was often necessary to clean out the uterus and sew the cervix up. The speaker then gave his method of sewing up the ends of the divided sphincter. It would be found that the sphincter had straightened out toward the position of a straight line. It was absolutely necessary to find the end of the divided muscle, if union was wanted.

Dr. Dunning said that many men who purported to do the Tait operation did not do it. He thought bad results followed in these cases often on account of the stitches being drawn too taut. He was in favor of early repair.

Dr. A. B. Miller, of Syracuse, believed the best name for this operation was "restoration of the pelvic floor." Emmet's operation restored the deeper fascia, and in that way a body was got that would keep up the uterus. Tait's did not do this, nor did it give good lasting results. It looked very nice in a clinic. In many cases where it was found necessary to restore the perineal body, it was seen not to have necessarily followed the parturient act. There may have been no tear in the mucous membrane, but there had been loss of the perineal body through pressure atrophy.

Dr. Price, in closing, said there were too many women suffering from neglected plastic work; medical men were responsible for it. The pelvic floor should be restored in all cases of laceration where the perineal body was injured. The outside perineal operation was worthless. There was no operation that gave such pleasant results; for the symptoms were often most distressing—the sensation of everything coming down, of defecation through the vagina, etc. The buried suture was not so common now as it was a few years ago. Emmet himself had changed the operation. The scar tissue must be sacrificed. He (the speaker) had seen three women die from malignant disease which had generated in scar tissue. He did not agree with Dr. Cushing about doing the recent operation before

the placenta was expelled. There was danger of injuring the wound in the delivery of the placenta. It might introduce dirt. The speaker gave a complete illustration of the method now pursued in doing this operation. He spoke of the added value of the silver wire suture; it acted as a splint. He considered operations done twelve or fifteen hours after as secondary operations; and they would not be as successful as those done earlier. Men should not be kept from doing the operation simply because the husband was excited and the baby was crying. The three or four sutures necessary could be introduced in a very few minutes.

After luncheon, Dr. W. B. Dewees, Salina, Kansas, read a paper on the

#### CARE OF THE PREGNANT WOMAN.

He said it was unnatural for women to suffer as they do during pregnancy and parturition. In the lower classes girls are neglected; and in the higher classes they suffered from luxurious indolence. It was necessary that there should be a revival of obstetrical learning, particularly as to the etiology of the difficulties of labor. The advanced study of human biology was the key. The diseases of pregnancy and parturition were preventable. Improper posture and dress, excessive sensual indulgence, were some of the leading causes of trouble. He believed in a wholesome forbearance from coitis during the period of gestation, and for three months following parturition. More attention ought to be paid to girls about the age of puberty. It was necessary when examining a pregnant woman to take into consideration the condition of all the systems of the body. It was also necessary to study the mental phenomena present in many cases. He advocated pelvimetry. Examination of the urine was absolutely necessary. Too early and too late marriages were deleterious to women. It was necessary that the parturient woman should observe regular hours, take plain nutritious food and drink. Exercise in the open air; if exercise could not be taken, massage was to be recommended. The bowels and skin should be kept acting freely. Puerperal fever, or parturial sepsis, as it would be better called, might be prevented by aseptic precautions at delivery. The reader showed how malpositions of the uterus followed improper posture. The convexity forward of the sacral part of the spine was a natural support to the viscera; but when a woman did not keep the erect posture, the weight of the abdominal viscera would come upon the uterus and displace it.

Dr. Carstens, in discussing the paper, said that if sexual intercourse were interdicted, as the reader had suggested, it would give the abdominal surgeon much to do in the way of taking out pus tubes. He dwelt on the necessity of strict asepsis in midwifery cases. The mass of the profession, he declared, did not know what antisepsis and asepsis were. Too many

of them considered it the sticking of their dirty hands into a little carbolic acid solution.

Dr. Hoffman considered pelvimetry in practice unpracticable. The patients would not submit to it. It would do little good anyway. It was merely a relative thing, for as much depends upon the size of the child's head as upon the size of the pelvis. In regard to douches, he did not think the woman required a douche; it was the doctor who needed the douche.

Dr. Longyear alluded to the subject of albuminuria. He took the ground that it would be wise in every case of albuminuria in the pregnant woman with threatening symptoms to deliver. He believed in giving the benefit of the doubt to the mother.

Dr. Reed said he believed that albuminuria was a condition that could be cured. He could see no reason why these murderous tactics spoken of should be resorted to. Unborn innocence had rights we were bound to respect. Many of these cases were curable.

Dr. Price added that another point in the care of the pregnant woman was the necessity of shutting the mouths of old women, who scared the young prospective mother by their ominous talk regarding maternal impressions. As to cleanliness, soap and water would do the work if thoroughly used.

Dr. Cushing said that he did not agree with the essayist that sexual immorality was as bad to-day as it used to be. He believed the women were reforming fast enough, faster than the profession was in its ability to take care of them. He believed in letting the pregnant woman alone. Unless there was hæmorrhage, or albuminuria, or something else to indicate a pathological condition, he believed a great deal of harm would be done if the pregnant woman was not let alone.

Dr. Jones said if this policy of interference was practised the meddling obstetrician would lose the case. The majority of his cases of albuminuria had not been followed by eclampsia.

#### APPENDICITIS.

Dr. George S. Peck, of Youngstown, read a paper giving reports of several cases treated surgically.

CASE 1. Operation during interval of attacks; obstruction July 6; did second operation; recovery. Operation July 27. Appendix buried in mass of strong adhesions between ileum and cæcum containing large fæcal concretion. Appendix removed in segments. Ileum returned to abdominal cavity. During first six days highest temperature 100°. August 4 reopened incision, found about three feet from ileo-cæcal valve complete obstruction by band of dense adhesions. Obstruction liberated, ileum

brought out in the incision, and abdominal cavity packed with gauze. From the thirteenth day to the present time patient has had from one to three daily passages per rectum ; discharged from the hospital on the fifty-fifth day after first operation.

CASE 2. Operation during fourth day ; first attack. Large appendix removed, containing two drachms of pus and fæcal concretion. Adhesions broken up, incision packed with iodoform gauze. Uninterrupted recovery. Discharged from hospital twenty-eighth day after the operation.

CASE 3. Operation third day of the third attack. Peritoneal cavity opened, adhesions broken up ; large appendix removed ; uninterrupted recovery.

CASE 4. Operation during tenth day. Death from septic peritonitis in sixty-five hours. Large abscess cavity evacuated ; appendix gangrenous and detached ; washed out by irrigation. Autopsy revealed general septic peritonitis.

CASE 5. Perforating appendicitis. Operation during third day of attack. Death from septic peritonitis twenty-seven hours, or more, after operation.

CASE 6. Similar to previous one. Died from general septic peritonitis.

Dr. W. G. Macdonald, of Albany, also read a paper on appendicitis. He maintained that for all practical purposes all inflammatory processes in the right iliac region arose from the vermiform appendix ; that the appendix is situated intraperitoneally ; that idiopathic peritonitis does not occur. From the pathological condition and clinical history he would classify as follows : (1) Acute, perforating, fulminating appendicitis with general peritonitis. (2) Acute suppurating appendicitis with local peritonitis and abscess. (3) Subacute appendicitis. Perforation occurred much earlier than was generally supposed. Prognosis in acute appendicitis was always grave. Operations undertaken when perforation was imminent were very likely to be followed by fatal results by extension of the inflammation. The removal of the appendix was to be undertaken with great care when it lay in the wall of the abscess cavity. The third group did not require operation during the first attack ; but if repeated attacks occur, operation during quiescence is demanded, and the result is generally good.

#### PATHOLOGICAL SPECIMENS.

The next feature was the presenting of pathological specimens. Dr. J. F. W. Ross presented an adenosarcoma of the uterus he had removed by vaginal hysterectomy.

Dr. Macdonald showed an ink bottle he had removed after abdominal section. The patient had been in the habit of applying the neck of such



a bottle inside the anus for the relief of piles, and it had accidentally slipped in. He tried in every possible way to get it out.

Dr. Hartwig, of Buffalo, showed a clinical thermometer a patient had, while the temperature was being taken by the vagina, shoved into the bladder. By dilating the urethra he removed it.

Dr. Ross said that he had removed the tumor he presented after he had submitted a small portion of it to be examined by a pathologist, who had reported it to be malignant in character. Out of this grew a breezy little discussion, in which Dr. Maclean said, "I have removed tumors and had them reported on by pathologists, who told me they were very malignant growths, and that they would return. I have found that they did not return. And when the pathologist has reported that the disease was not malignant, I have found that the tumor often returned and killed the patient."

Dr. Macdonald said that if the specimen was an adenosarcoma from the uterus, stomach, or rectum, it was always malignant. He maintained that the pathologist had a right to the clinical history of the case. Too much was expected of the pathologist. The microscope was only an aid to diagnosis.

Dr. Price said they had a right to ask for more care on the part of pathologists; in the past they had been too careless. In regard to tumors, he believed the clinical history was a sufficient guide to the clinician. The watery discharges like meat washings were always indicative enough for the surgeon.

Dr. Glasgow pointed out that pathology was but one means of diagnosis. If the surgeon was confined to the sense of sight, he would know little. If the pathologist finds the tissue presented to him to be epitheliomatous, he may depend that it is malignant. It was difficult, he admitted, to distinguish between inflammatory and sarcomatous growths.

Dr. Ross pointed out that it was impossible from the discharge to diagnose an inflamed myoma from an adenoma of the uterus. Here the microscope would differentiate the conditions.

Dr. Cordier presented a stone of the kidney weighing three ounces. There was an absence of the symptoms of stone. The kidney retained its functions, which it is still doing. It was removed by the ordinary lumbar incision. The next specimen was also presented by Dr. Cordier, a case of ectopic gestation. Rupture had taken place at the end of six or eight weeks. The abdomen was full of blood. The only trace of the fetus was the presence of the placenta in the tube.

#### PUS IN THE PELVIS WITH SPECIAL REFERENCE TO APPENDICITIS.

Dr. Hoffman, of Philadelphia, then read a paper. Pus in the pelvis apart from peritonitis and appendicitis was rare. Discovery of a swelling near

the uterus was usually a sign of tubal disease. Sometimes the ovaries, tubes, and uterus were all fixed. In some cases diagnosis was very difficult. The reader then outlined the principal symptoms found when this condition was present. For the uterine discharges often present some made the mistake of curetting, a procedure which only intensified the trouble.

Dr. Morris, of New York, said, in discussing the preceding papers on appendicitis, that this disease was an infective, exudative inflammation of the appendix. There was no natural elaborate classification of the disease. Men seldom made mistakes in its diagnosis. He had removed many appendices; he had been misled in one case of tuberculosis and one case of carcinomatous disease. He had examined the contents of the appendix in many cases; foreign bodies, such as seeds, etc., were not often present. More frequently he had found little calculi, consisting of calcium phosphate and a little fæcal matter, together with a small amount of fat. In two cases he had found that the fat amounted to 50 per cent. It was difficult to account for this proportion of fat, as the lumen of the appendix was cut off from the lumen of the cæcum. He thought it might have been a retrograde metamorphosis of the lymphoid cells. As to the question of dealing with cases where there was suppuration and adhesions, the procedure should be determined by each operator, who knows his own methods and the results following his technique. Every man was a law to himself. If he (the speaker) practised drainage as Dr. Price did, he could not get the same results. For himself, his plan was to separate all adhesions in almost every case of appendicitis upon which he operated. He followed the same plan in searching for every collection of pus; he did it in attempting to straighten adhering loops of bowel; but he considered it would be unsafe to teach this.

Dr. Price spoke in the highest terms of what Dr. Morris had said on the subject. He was sorry Dr. Morris did not stand out and insist on teaching others to do what he does so successfully. Dr. Price said he did not think we could brush aside the foreign body as not being an element in the causation of this disease. He pointed out that many patients suffering from this trouble were sent to Europe for their health, carrying with them pus. He regretted that the mortality was so high. He argued that surgeons with pelvic experience of tubal and ovarian disease—gynecic surgeons—would always have better results in these cases than other men. No operation for puriform disease was complete until all bowel adhesions were broken up. The subject of ovariectomy, hysterectomy, puriform disease of the tubes and ovaries were settled. Suppurative peritonitis was under discussion, and there was a difference of opinion as to what good surgery could do. Those suffering from purulent peritonitis could be saved, and should be saved. He objected to the method of stuffing gauze into the wound for drainage after the operation.

Dr. Cordier said he differed from the two preceding speakers in regard to the breaking up of the adhesions. There was a great difference between pus found in this locality and pus found in the pelvis. There was a difference in the malignity between the bacilli coli communis and the gonococcus. He believed that if the adhesions about the appendix were disturbed, there would surely be a greater mortality than if they were left alone. His plan was to make an incision, drain and treat as he would an abscess in other localities ; and he had satisfactory results. More attention should be paid to colic ; he believed it to be due frequently to appendicular trouble. In the pelvis he would agree that the adhesions should be broken down and the diseased structures removed. The same plan in appendicitis would scatter the pus, so that it could not all be removed again.

Dr. Murphy, of Chicago, said that this battle of appendicitis had been tested all along the line. The first thing they had to defend was the presence of pus. Finally, after a series of operations, and careful post-mortem examinations, it was agreed that there had been or was pus present. It was agreed that cases got well without operation ; and also with operation. What cases should be operated upon and what cases should be left without operation ? There was no credit due to him who made a record on the recurring variety. The kind they wanted to make a record on was the one in which the patient's life was in jeopardy in the greatest degree, the acute suppurative variety. The question was, what was to be done, and when was it to be done ? What happened in the first attack of appendicitis ? Were the symptoms from invasion with infection of the mucous membrane, or from perforation, or from obliteration ? The outcome of these three conditions would be all the pathological conditions found in the abdominal cavity. In the early stage the disease was circumscribed, frequently limited to the cavity of the appendix ; a few hours later to the peritoneum. What would be done if pus were forming anywhere else ? Let it out. When should it be done ? When the symptoms were unmistakable. The time to operate was immediately. The patient has a sudden attack of pain in the abdomen ; it is followed by nausea and vomiting. There is increasing tenderness over the seat of the appendix. It is time to operate. There are few conditions in the abdomen resembling that. Some say they would operate on such and such cases. There was no man living who could make a differential diagnosis of the pathological condition that exists in the abdomen in appendicitis. As to pus, there was a great difference ; some varieties were as harmless as water, and others so poisonous that a few drops would kill a dog in a few hours if injected into the peritoneal cavity. If on opening an abdomen the intestines were found to be blistered, it was an indication that the patient would die, and that very soon.

Dr. Carstens said that there were cases when he did not see the need

of breaking up the adhesions. He believed in opening the abscess where it had formed, and draining. It was impossible to say what were the mild and what were the severe cases. He was in favor of immediate operation.

Dr. Cushing said that he agreed thoroughly with Drs. Murphy and Carstens.

Dr. Davis was in favor of treating the acute fulminating variety just as he would a gunshot wound of the abdomen—by operating at once. He thought the advice given by Drs. Price and Morris would cause many deaths. In the hands of the majority of physicians, the plan of breaking down the adhesions would be disastrous. If the appendix could not be found by gentle manipulation, it had better be left alone.

Dr. Vander Veer said that the fact that many of the cases they were called to see were far removed in inaccessible parts of the country, where it required a day's travel to reach, made a difference in the statistics. Such were many of the cases Dr. Macdonald had reported.

Dr. Reed drew attention to the fact that McBurney's point should not be relied on as a means of diagnosis.

Dr. Ross said, if the fulminating, gangrenous form had reached the second stage, he thought it best to use tentative measures. If operated upon, then the patient was sure to die. But when the patient had reached the third stage, in which the pus is walled off, then the abscess should be opened. He believed in the immediate operation; but often the surgeon did not see the case early enough.

Dr. Hurlburt said that catarrhal trouble would produce stricture in the appendix, as it would in other small mucous passages. Post-mortem he had noted marked thickening of the circular fibres, and evidences beyond this of the circulation having been interfered with. Beyond the stricture could be seen collections of fluid, which would account for the colic.

Dr. Hartrig said that he leaned to the conservative method of treatment, as the greatest proportion of cases recovered without operation.

Dr. Maclean said that to do full justice to the cases he would advise early operation; but in many cases the friends objected. It took a good deal of moral courage to advocate operation in every case. He had known cases where the friends refused to have the operation performed, discharged the surgeons who advocated the measure, and invited in, in one case, a homœopath, under whose care the patient recovered. This was one of the difficulties they had to contend against.

Several other gentlemen took part in the discussion.

#### A QUESTION OF PRIORITY AS TO LIGATION OF THE UTERINE ARTERIES FOR THE CURE OF FIBROIDS.

The next paper was read by Dr. W. B. Dorsett, St. Louis. He pointed out that he was the first to introduce the method of tying the uterine

artery for the cure of fibroids. He told how he came to try this plan, and showed how those who claimed priority for his operation were mistaken.

Dr. Howitt, of Guelph, read a paper on

REMARKS ON THE SURGICAL TREATMENT OF INTUSSUSCEPTION IN INFANTS,  
BASED ON TWO SUCCESSFUL CASES.

In children under one year one-third of all the cases of abdominal obstruction were due to this cause; and the mortality was seventy per cent. The essayist then spoke of the different forms of this trouble. In the first case all the classical symptoms were present. Treatment by distension was tried, but without avail. A median incision was made. The lower three inches of the ilium were found projecting through the ileo-cæcal valve. The cæcum and colon were collapsed. The prolapsed ilium refused to yield. The method employed of reducing a paraphimosis was used, and the intussusception was thus reduced. Diagnosis of these cases was not easy; operation should be done early; strict antisepsis should be employed; the incision need not be more than three and a half inches in length, and its middle should be opposite the umbilicus, if the lump were undefined. Reduction could best be accomplished by making pressure on the intussusceptions, and traction on the intussusceptions in the opposite direction. A careful replacement of the omentum was important to prevent adhesions.

Dr. Morris then chloroformed a rabbit, made an abdominal incision to expose the intestine, touched it at one point with a little piece of sod. bi-carb., and an intussusception was beautifully demonstrated; which Dr. Murphy reduced.

Dr. Morris said some such irritant in the form of a ptomaine might be an element in the causation of such a condition in the human economy.

CURE OF PERITONEAL TUBERCULOSIS AFTER SIMPLE INCISION.

Dr. Morris gave an explanation of the cure of peritoneal tuberculosis after simple incision. He had taken some of the fluid collected at an operation for this condition and placed it in an incubator for forty-eight hours. A crystallizable ptomaine was isolated. With this product bacilli of tuberculosis in culture tubes were killed. His deduction was that after an operation certain saprophytes entered in the abdominal cavity, and in the medium of the fluid left after the operation (and it was such cases, when a little fluid was left, which were most amenable to cure) fermentation took place, and this crystallizable ptomaine or tox-albumen was generated that proved inimical to the tubercle bacillus. On account of the free lymph supply of the peritoneum, the tox-albumen would be rapidly diffused to every part. These remarks were listened to with profound interest, and were the subject of a most interesting discussion.

TREATMENT OF DISTENSION OF THE FALLOPIAN TUBES WITHOUT LAPAROTOMY  
AND REMOVAL.

Dr. Frank A. Glasgow, of St. Louis, read a paper containing a plea for the treatment of tubal disease by dilating the uterine orifice by means of slippery elm bark tents introduced into the uterine cavity; this would also stimulate peristalsis in the tube; these two points being attended to many cases of hydrosalpinx and pyosalpinx would be permanently relieved. There was too much of a tendency toward operative means for the relief of these conditions.

INFLAMMATORY DISEASES OF THE UTERUS AND APPENDAGES AND OF THE  
PELVIC PERITONEUM.

Dr. Wm. W. Potter, of Buffalo, introduced the subject by recalling the well-known fact that the pathology of pelvic disease has been entirely reconstructed since 1860, and that now we had come to regard inflammation of the pelvic peritoneum as generally symptomatic of disease of the ovaries or Fallopian tubes or both. Mr. Tait within the last ten or twelve years, together with men who have worked abreast of him—some of whom are members of this association—have driven out the theory of pelvic cellulitis that for so long held sway, and now peri- and parametritis have been dropped from the gynæcologic vocabulary. The struggle has been a long one, but abdominal surgeons have demonstrated the truth of this proposition, viz., that pus originating outside of the tubes or ovaries in the non-puerperal state is a very rare condition, and that, speaking generally, pelvic abscesses are pus tubes. The largest number of women in the consulting rooms of gynæcologists are those suffering from pelvic inflammation or its residues; hence the importance of the subject under discussion cannot be overestimated. But, he asserted, it is only within the past seven or eight years that anything like uniformity of opinion as to the causes and proper treatment of pelvic inflammation have been adopted. Now, just as we are beginning to agree as to the essentials governing these cases, we are told by a number of agreeable gentlemen who call themselves conservatives that these diseases do not demand operation, but that they can be cured in most instances by tentative measures, such as diet, rest, electricity, and the like. By denouncing the work of abdominal surgeons as unnecessary mutilation, and stigmatizing it as castration or unsexing women, they have created a panic among the medical journals that is reaching far into the ranks of the profession. The effect of this is to turn back the wheels of time and stay the advance of progress with harmful results to suffering women. It must be admitted that these so-called conservative men are clever, which makes their subtle and dangerous doctrine all the more damaging in its results.

Dr. Reed, of Cincinnati, outlined the clinical history of these cases. One class of cases might begin with cervical trouble, cervical leucorrhœa being the principal symptom. This might be followed by obstructive dysmenorrhœa; later by pre-menstrual pain. Local pain and tenderness might develop on one or other sides of the uterus, accompanied by fever. The discharge becomes purulent. The patient suffers from exhaustion and becomes anæmic. From the parametrium the general peritoneum becomes involved and collapse follows. A second variety of cases was found in the courtesan and those infected with the poison of the gonococcus. A third class was that brought about by sepsis during abortion. The clinical picture of these forms was given.

Dr. McMurtry, of Louisville, Ky., read a paper dealing with the causation and pathology of the condition. He said that puerperal infection exceeded all others as a causative element; surgical operations on the uterus, the sponge tents, and steel dilators were other factors in bringing about inflammation of those organs. Gonorrhœa, tuberculosis, neoplasms, and malformations lead to a similar condition.

The different inflammations were accompanied by a single pathological process congestion with effusion. On the rapidity of this depended the extent and virulence of the condition. The essayist then pointed out at length the result of his invasion upon the ovaries, tubes, broad ligament, etc.

Dr. Rosenwaser, of Cleveland, discussed the treatment. First, as to the treatment of an acute pelvic peritonitis medically, all decomposition should be removed from the interior of the uterus. Hot douches were helpful, saline laxatives would often be followed by the relief of pain. He did not believe in the use of the iodides and mercury. The principle of dissolving the exudate was wrong.

As to the surgical treatment, he advised curetting if the tubes were not affected; abdominal section if abscess formation had developed.

In the chronic pelvic peritonitis rest in bed was essential; the bowels should be attended to; boro-glyceride tampons were useful in some cases; gentle pelvic massage; tonics; local electricity was also helpful. Curetting where not contraindicated, abscess opening, removal of the ovaries and tubes, would include most of the surgical measures.

Dr. Carstens advocated preventive measures. He thought if the men who had the gonorrhœal cases to treat did their work properly the gynecic surgeon would not have so much to do.

Dr. Price said that suppurative disease must be encouraged to evacuate itself. In these cases concurrent inflammations and adhesions were always present, and the adhesions must be broken down completely in order to do a complete operation. Many ovaries had been unnecessarily

sacrificed. Knowledge of the anatomy and physiology of the intestines was necessary. Puncture and drainage would not do in these cases. Hysterectomy was not justifiable unless the uterus was seriously involved.

Dr. Dorsett then read a paper on the present status of pelvic inflammation. Surgery of the pelvic viscera had made enormous strides during the past ten years. Electricity had made a feeble light, but would soon die a natural death. Often a foul uterine cavity was the seat of the trouble, and when cleaned symptoms were relieved. Total ablation was necessary when the pus was found hemmed in in the tube or ovary. Pus deep in the pelvic cavity was hard to deal with. Pus sacs near the uterine end of the tube could be evacuated by packing the uterus.

#### THE RELATIONS OF RENAL INSUFFICIENCY TO SURGICAL OPERATIONS.

Dr. C. C. Fredrick, of Buffalo, read a paper on renal insufficiency. He characterized this condition to be any state of the urine showing deficient elimination of the waste products, whether from functional inactivity or lesion of the kidney. In such cases it was necessary to consider the amount and nature of the urine, the character of the lesion for which the operation was necessary, and the causal relation the disease bears to the insufficiency. Minor degrees of insufficiency were not a contraindication to operation. The graver forms were contraindications, except for growths that had a causal relation to the kidney lesion. Patients with kidney disease were more liable to shock and complications. There was little choice between ether and chloroform in these cases of renal insufficiency.

#### SOME RESULTS OF ETHER ANÆSTHESIA IN ABDOMINAL OPERATIONS.

Dr. I. S. Stone, of Washington, took the ground that ether was not the safe anæsthetic it was generally believed to be; that albumin was often harmless, at least its presence was not always a contraindication to operation; that our methods for detecting nephritis were at fault. He proved the position he took from the citation of illustrative cases.

#### THE CAUSE OF THIRST FOLLOWING ABDOMINAL SECTION.

Dr. Eugene Boïse, of Grand Rapids, Michigan, after stating the generally accepted proposition that thirst is a sensation indicating that the tissues of the body are in want of more water, argues that the sensation as felt in the mouth and throat is reflex, and that the real point from which the sensation arises is in the abdominal viscera; that from these the sensation is conveyed to the consciousness by fibres of the sympathetic system of nerves; that while ordinary thirst is caused by the withdrawal of water from the tissues to refill the veins depleted by excessive perspiration or otherwise, the thirst following abdominal section is caused by the withdrawal of water from the abdominal viscera to fill veins partially collapsed



by reason of diminished blood supply because of contraction of the arteries of the viscera. He briefly stated those physiological facts which are universally accepted or have been experimentally proven on which the theory is based: (1) Thirst is a sensation indicating that the tissues need more water. (2) The sensation felt in the throat is reflex. (3) The origin of the sensation is believed by leading physiologists to lie in the sympathetic system of nerves, because (a) no cerebro-spinal nerves can be found which convey the sensation to the consciousness, and (b) nutrition is presided over by the sympathetic system, and thirst is a disturbance of nutrition. (4) The origin of the sensation is probably from the abdominal organs, because (a) these are so rich in sympathetic fibres, and (b) introduction of water into the stomach so instantaneously allays thirst. (5) The sensation invariably follows the withdrawal of any considerable amount of fluid from the body; the withdrawal of such fluid causes proportionate collapse of veins and capillaries. (6) Capillaries tend to remain at normal tension, and when suddenly collapsed in any degree attempt to regain that tension by taking water from the surrounding tissues. (7) Irritation of sympathetic nerves causes contraction of the arterioles supplied by such nerves. (8) Sudden contraction of the arterioles supplying any organ is followed by lessened tension in the capillaries and small veins of that organ. (9) Abdominal section invariably causes direct and reflex irritation of the abdominal sympathetic nerves. (10) Such irritation causes contraction in some degree of the arterioles of the abdominal viscera, with subsequent lessened tension in their capillaries, and compensatory withdrawal of water from their tissues. And is it not probable that such circulatory disturbances give rise to the sensation of thirst?

The president, Dr. George H. Rohé, Catonsville, then delivered his address; subject—"Post-operative Intestinal Obstruction and its Treatment."\*

Dr. Vander Veer, of Albany, then gave a synopsis of his results in 145 operations done upon the uterus and appendages. He gave a careful review of the subject of the preparation of the patient, embodying all the strong points pertaining to the technique of such work, placing great stress upon the importance of the room in which the operation was to be done being put in a thoroughly aseptic condition, and thorough cleanliness of the patient herself. The operations comprise all the varieties of pathological conditions met with in connection with the ovaries and tubes. The histories of the cases were somewhat interesting. Thirty-nine gave a history of phthisis, fifteen of carcinoma, fifty-seven of irregularity of menstruation. The mortality amounted to 11 per cent. While not criticizing

\*Abstract published in this issue, page 719.

adversely the methods of other operators in closing the wound by means of different rows of sutures, kangaroo tendon, and other forms of sutures, yet he has no reason to give up his usual method of closing the wound by deep sutures of silkworm gut, placing them three or four to the inch, taking in carefully only a margin of the skin, a portion of the fascia and muscles, and not to exceed one-quarter of an inch in width of the peritoneum itself, placing much stress upon the importance of careful, thorough, complete apposition. The causes of death in the seventeen cases were as follows : Obstruction of the bowels due to a coil of small intestines becoming attached to the stump of the pedicle, causing death on the fourth and fifth day, two cases. Septic peritonitis, two cases. Immediate hæmorrhage from the pedicle, slipping of the knot within six hours after the operation, though the wound was reopened, the vessels secured, abdomen flushed, and hæmorrhage controlled, one case. Undoubted hæmorrhage from the pedicle causing general peritonitis, although no distension of the bowels was present, death on fourteenth day, one case. Shock within twelve hours after operation, one case. Shock within twenty hours after operation, one case. Autopsy in both cases revealed everything in good condition. Pulmonary infarction on sixth day, one case. Aggravated diabetes, one case. Exhaustion on the sixth day, no other apparent cause found, one case. Another case of exhaustion on the third day, the symptoms in the last two cases, including an autopsy, not revealing any other cause. Multilocular ovarian cyst, tapped twice, operation complicated with four months' pregnancy, one case. Puerperal septicæmia, one case. Intestinal obstruction on twenty-first day, one case. Advanced age, complicated with the recent effect of an attack of la grippe, one case. Delayed operation in a case of extra-uterine pregnancy possibly four months, one case. Persistent vomiting was treated with cocaine, calomel, and oxybate of cerium. Movement of the bowels was secured on the second or third day, not later than the fourth.

Dr. McMurtry said there had been no allusion to post-operative sepsis, but upon inquiry he had learned that Dr. Vander Veer had only two cases of such. These operations should be done early in the morning ; this gave the surgeon a chance to watch for hæmorrhage. Where the patient had to be reopened to check the bleeding, it should be done with as much care as the primary operation ; often this was not the case.

Dr. Cordier also spoke ; among other things he said surgeons should always remove their rings in doing these sections.

#### NEPHRECTOMY.

Dr. L. H. Dunning, of Indianapolis, Ind., reported four cases of this operation, of which the following is a synopsis :

CASE 1. Nephrectomy for painful movable kidney. An unsuccessful nephrorrhaphy had been done two and a half years previously. The patient had been bedridden four years. A lumbar nephrectomy was done, the patient recovering and obtaining entire relief from pain. The author deploras the necessity of removing a healthy kidney only because movable and painful. He thinks that the success of recent methods for anchoring the kidney will obviate the necessity of such a procedure.

CASE 2. Nephrectomy for persistent hydronephrosis due to stricture of the ureter at its pelvic extremity. The tumor was mistaken for an ovarian one. It was removed by a median abdominal incision.

CASE 3. Sarcoma of the kidney in a child two years old. Nephrectomy and recovery. The tumor had been discovered only four weeks previously. A median incision (abdominal) was employed.

The writer has collected the histories of twenty cases of sarcoma of the kidney operated upon since 1885, in children under five and a half years of age. Of these, five perished and fifteen survived the operation, thus showing a mortality of twenty-five per cent. This is a surprising decrease in mortality, and is probably due to improved details in technique rather than to radical changes in the method of operation.

CASE 4. Nephrectomy for uretero-vaginal fistula following vaginal extirpation of a cancerous uterus. The operation was done four weeks after the hysterectomy. The ureter was torn across in enucleating a nodule of cancerous tissue from the folds of the broad ligament on removal of the uterus. Nephrectomy was done four weeks subsequently because of intermittent closure of the fistula and the morbid mental condition of the patient. The cancer had recurred in seven weeks, and patient died three months later of exhaustion and septicæmia.

Dr. Rosenwasser spoke of the differential diagnosis of these cases. Little dependence could be put upon the patient's statement that the tumor grew upward or downward. Patients never knew. Retro-peritoneal tumors tended to crowd the large intestine inward toward the median line; hence one could get a tympanitic sound over that region. Again, it was more or less fixed. This fixity was a feature of the ligamentous cyst, but it dipped down into the vagina, and could thus be diagnosed differentially.

Dr. Davis did not believe it was good surgery to operate on these sarcomatous kidneys where recurrence was certain and fatal. He gave the history of an ectopic gestation which he had thought was a cyst of the kidney, showing how difficult the diagnosis sometimes was.

Dr. Cordier spoke of the value of ureteral cauterization in establishing a diagnosis. He said we could look forward to the time when resection would be done for stricture of the ureter.

## PROGRESSIVE CUTANEOUS ATROPHY OF THE VULVA (KRAUROSIS VULVÆ).

Dr. C. A. L. Reed, of Cincinnati, read a paper with this caption. He reported six cases in which the pathological and clinical features were characteristic. The first changes obvious to the naked eye consist of small vascular areas around the introitus vaginæ. These areas are not elevated, as if seats of merely inflammatory engorgement, but are slightly depressed relatively to the adjacent epithelial surfaces. They are exquisitely painful to the touch, and efforts at sexual intercourse are generally agonizing and futile. About this same time inspection will reveal a narrowing of the vaginal orifice, associated with diminished elasticity of the structures. The cutaneous or muco-cutaneous surfaces will now be observed to have lost a certain proportion of their pigment, giving them a more or less translucent appearance, which increases until it becomes so transparent that the larger capillaries and minute ecchymoses may be readily discerned beneath it. The skin thus affected becomes tense, effacing in a more or less degree all of the normal folds of the vulva, and narrowing the vaginal orifice until, in the case of a multipara, "incrédulity may be excused when the patient states that she has borne children."

Knowledge relative to progressive cutaneous atrophy of the vulva is too nebulous to justify final conclusions. That which seems to be conclusively demonstrated may be summarized as follows: (1) Progressive cutaneous atrophy of the vulva is a distinct disease. (2) It is of very rare occurrence. (3) It is essentially inflammatory in character, differing from other inflammations of the skin in the marked progressive atrophy which succeeds the stage of hyperæmia and infiltration. (4) It is limited, in its manifestations, to the vulva. (5) It is manifestly not of syphilitic origin. (6) Its etiology is so obscure as to suggest a primary causal lesion in the trophic nerve supply of the vulva. (7) The affected areas may be successfully excised.

This was followed by a rather profound paper by Dr. Hurlburt; subject, "The Element of Habit in Gynecic Disease."

## INTESTINAL ANASTOMOSIS WITH THE "MURPHY BUTTON."

On motion of Dr. McMurtry, Dr. Murphy, of Chicago, was called upon, and made some remarks in connection with the subject of intestinal anastomosis with the button. In order to get proper adhesion of the ends of gut, it was necessary to get uniform aseptic approximation of their ends; and at the same time it was necessary that there should be sufficient space in the lumen for the transmission of the contents during the time that adhesion was taking place. There must be as little irritation of the peritoneum about the bowel as possible. Every operation in the peritoneal

cavity should be performed in the shortest possible time consistent with good work. The scar resulting from an intestinal approximation should be one that would not contract. The doctor presented a specimen sent him in which approximation was made by means of the suture, and in another place in the gut where approximation had been made by means of the button. The approximations were in the same dog done on the same day. In the part sutured there was a contracted cicatrix; where the button had been inserted was very difficult to find, as the scar was almost invisible, and there was no contraction. Under the pressure of the button, the first tissue to be cut off and become approximated was the peritoneum; the next that gives way is the muscular coat, and this adheres to muscular coat. The connective tissue between the two becomes absorbed, leaving continuous muscle. The next coat to give way is the tunica propria, and then it approximates with similar tissue on the opposite side. The button was the first device, the speaker said, to accomplish the bringing edge to edge of corresponding tissues. The button had its drawbacks—defects, which he hoped would soon be overcome. Some had raised the objection that the button would cause obstruction. In 129 cases reported to him up to the present, there had not been one report of obstruction. In one pylorotomy he had heard of, the button had slipped into the stomach, but did not cause symptoms. He had not heard of its being stuck in the ileo-cæcal valve either. It had been retained in one case at the hepatic flexure of the colon. The only thing in the way of obstruction that was to be feared was the presence of adhesions in the gut below the point of approximation. He had learned of two cases where the button itself had become obstructed with fæces. It was difficult to see how this could be in the small intestine where the contents were fluid. Where the large intestine was approximated fluid diet should be administered. The doctor demonstrated to the association the proper way of inserting the button. One important point was in making the purse-string suture at the mesenteric attachment. By making one overstitch at this point, the peritoneal surfaces of the mesenteric peritoneum at this point were nicely approximated. As to results—in intestinal obstruction they must always be bad. The question to answer was how many were due to the technique of operation, and how many from other causes. In cutting of the intestine, it should be cut so that the greatest portion will be removed from the convex surface.

The doctor then presented a faulty button that a Toronto medical man had brought from New York. Dr. Murphy said that in the button presented the cup was too shallow in both the male and the female portions of it. That, however, was not the most dangerous element. The spring was placed in the female portion of the button, which was absolutely wrong,

and made it absolutely impossible to place a string around the stem or central cylinder. The spring cup should be placed on the male side of the button; that was the side on which the spring catches were placed. The spring supporting the cup was too strong, as it would produce too rapid pressure atrophy. But the fatal defect in the button was that the edges of both the spring cup and the cup on the opposite side of the button were sharp, and would perforate the bowel before the adhesions could take place. He said that he considered this button a dangerous instrument, and the man who would put such a defective instrument on the market should be considered nothing else than a criminal.

#### RESTORATION OF INTESTINAL CONTINUITY WITHOUT MECHANICAL DEVICES

was the subject of a paper by Dr. Wm. E. B. Davis, of Birmingham, Ala., who said that the purpose of this paper was not to claim originality for any special technique, but rather to consider the various operations and to show that mechanical devices can in a great proportion of cases be better dispensed with by the surgeon who has had much experience in intestinal work, either on the lower animals or on the human intestine. Still there is a place in anastomotic work for bone plates, catgut plates, and other devices of this sort, and the Murphy button, but the experienced surgeon will find the field of their application very limited. These devices are of great assistance to the surgeon of limited experience in this class of work, and should be recommended in the event of an operation having to be done by one who has not had the opportunity of becoming familiar and skilled in suturing of the intestines. The Murphy button is a valuable device for cholecystenterostomy, and is superior to anything yet suggested for that purpose. The button is so small that it can pass through the intestine without causing any trouble, and it can be depended upon with almost absolute certainty to produce satisfactory adhesion and a competent opening between the gall-bladder and intestine. The end-to-end operation or circular enterorrhaphy is a dangerous procedure, from the fact that injury to the mesenteric border is liable to produce sloughing, and it is never possible to say that a surgeon will not have this complication follow the operation. Besides, any stitch method in the end-to-end operation requires so much time that it should be objected to usually on that account. The Murphy button can be used very satisfactorily for this purpose, and where end-to-end operation is to be resorted to Dr. Davis is of the opinion that this device could be used, unless the surgeon is an expert in intestinal suturing. The operation of Abbe is a plausible one, but it is not so reliable as the one which has proven satisfactory in the experimental work of the author. The incision is not made so long as in the case of Abbe, and is about three inches in length. In the case of gastro-enterostomy the intestine

and stomach are both brought into the wound, and the incision three inches in length made in both. Interrupted sutures are taken through coats of the bowel and stomach around the entire length of the incisions and are tied on the inside, the last stitch being tied on the outside and turned in. A continuous outside safety stitch is then taken through the peritoneal and muscular walls. In bringing the small intestine together the same procedure is followed, the interrupted through-and-through stitch of large silk being taken instead of an overhand stitch, as recommended by Abbe, and only one row of outside sutures, which may be interrupted or continuous, preferably the latter. This operation can be done very quickly, and is more reliable than the various ones with mechanical aids to anastomosis. Particularly is this method of operating valuable in cases of simple stricture of the bowel, and there will be a great many of these cases now, inasmuch as there are more operations done on the intestines.

Dr. F. Blume, of Allegheny, Pa., reported a very interesting case of

#### CHOLELITHIASIS

in a woman, thirty-seven years of age, in which the number of calculi removed, besides minute concretions, was one hundred and twenty-three, weighing fourteen drachms. The stone removed from the gall-bladder weighed four and three-quarter drachms.

Dr. Cushing, in a paper on

#### HYSTERECTOMY FOR CANCER OF THE UTERUS,

advocated the vaginal route of removal. In the discussion which followed, the comparative merits of this route with abdominal hysterectomy were warmly discussed. In the discussion the Trendelenburg position was stoutly condemned by some of the members as causing a great degree of shock.

Dr. Machell, of Toronto, reported two cases of

#### DIAPHRAGMATIC HERNIA.

The post-mortem reports were exceedingly interesting.

After the customary vote of thanks the association adjourned.

#### ELECTION OF OFFICERS.

The following officers were elected: President, Dr. J. Henry Carstens, of Detroit, Mich.; first vice-president, Dr. W. E. B. Davis, of Birmingham, Ala.; second vice-president, Dr. Henry Howitt, of Guelph, Ont.; secretary, Dr. William Warren Potter, of Buffalo, N.Y.; treasurer, Dr. X. O. Werder, of Pittsburg, Pa.

The place of meeting for 1895 was referred to the Executive Council for decision. It is likely that it will be held in Louisville, Ky., in September.

## Medical Items.

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DR. CHARLES CARTER has commenced practice at French River.

DR. J. N. E. BROWN is now living at 156 King street west, Toronto.

DR. J. A. CREASOR, Spadina Ave., has been confined to his room for the past month with a sprained ankle.

DR. STEVENSON, Bloor street, and Dr. W. P. Caven are taking a jaunt across the ocean.

DR. G. G. BREWER (*Medical and Surgical Reporter*) recommends peroxide of hydrogen for the purpose of arresting hæmorrhage, both venous and arterial.

DR. JAMES F. W. ROSS, of Toronto, started for England, October 15th. He expects to return at once, and will probably be home the first week in November.

DR. GERALD O'RIELLY, formerly of Fergus, who recently returned after a somewhat extended trip to Europe, will commence practice in Detroit, Mich., November 1st.

DR. E. LAPLACE (*Medical News*, May 19th, 1894) favors the McBurney method for the radical cure of hernia, and, as the firmest cicatricis are from burns, he suggests cauterization of a portion of the canal. In cases of small hernia he has derived good results from Bassini's method.

MEDICAL COUNCIL ELECTIONS.—It will be seen by the following that seven members of the new council have been elected by acclamation, while contests are in progress in the divisions : No. 1 division, Dr. J. L. Bray, Chatham, acclamation ; 2, Dr. J. R. Williams, Ingersoll, acclamation ; 3, Dr. W. F. Roome, London, acclamation ; 4, Dr. W. Graham, Brussels, acclamation ; 5, Dr. Brock, Guelph, Dr. Vardon, Galt ; 6, Dr. Henry and Dr. Smith, Orangeville ; 7, Dr. G. Shaw, Hamilton, Dr. D. Heggie, Brampton ; 8, Dr. D. L. Philip, Brantford, Dr. John P. Armour, St. Catharines ; 9, Dr. W. D. C. Law, Beeton, Dr. John Hanley, Waubaushene ; 10, Dr. E. J. Barrick, Toronto, acclamation ; 11, Dr. H. T. Machell, Toronto, acclamation ; 12, Dr. J. M. Cotton, Lambton Mills, Dr. J. H. Sangster, Port Perry ; 13, Dr. J. W. McLaughlin, Bowmanville, acclamation ; 14, Dr. Ruttan, Napanee, Dr. Thornton, Consecon ; 15, Dr. W. W. Dickson, Pembroke, Dr. W. Spankie, Kingston ; 16, Dr. R. F. Preston, Newboro, Dr. R. Reddick, Winchester ; 17, Dr. D. Bergin, Cornwall, Dr. A. F. Rogers, Ottawa.



COUNTY MEDICAL ASSOCIATION.—The eleventh regular meeting of the County of Simcoe Medical Association was held in the council chamber, Collingwood, on Thursday evening, Sept. 27th, the newly-elected president, Dr. Howland, of Huntsville, in the chair. The following members were present : Drs. Aikman, Ardagh, Arthurs, Aylesworth, Ball, Bird, Decker, Donaldson, Hanly, Hunt, Large, Lehmann, McGee, McFaul, McLeod, McClinton, McKay, Morton, Nesbitt, Pauling, Peters, Raikes, Ross, Smith, Starr, Stephen, and West.

The meeting was opened with a paper by Dr. Hunt, of New Lowell, on the diagnosis and treatment of scarlet fever, which was very fully discussed by Drs. Hanly and Stephen.

Dr. McKay, of Collingwood, presented a patient with an abdominal tumor, giving a full and exhaustive history of the case.

Dr. A. E. Ardagh, of Orillia, read a paper on meningitis in children, which was discussed by Drs. Morton, Stephen, and Shaw.

Dr. Starr, of Toronto, the secretary of the Dominion Medical Association, was present as the guest of the society, and read a paper, illustrated by numerous photographs, on inflammation of the frontal sinus.

In the absence of Dr. Paul Gillespie, Dr. McGee, of Midland, read his paper on the treatment of pneumonia, which was discussed at considerable length by Drs. McFaul, Stephen, Raikes, and Starr.

After an address by Dr. Hanly, of Waubaushene, in support of his candidature for a seat in the Medical Council, the meeting adjourned.