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Original Communications.

A CRITICAL REVIEW OF OPERATIONS FOR VENTRO-SUSPENSION OF THE UTERUS.

By S. M. HAY, M.D.

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That retro-deviations of the uterus are among the most common conditions found in gynecological patients is well known.

The combined observations of Winckell,[1] Lohlein and Sanger, embracing several thousand patients, show this condition to occur in 17.74 per cent. of all patients of this class. Other authorities place the percentage all the way from 15 to 33.

It might be well to start out early in the consideration of this subject with the fact clearly before us, that simple uncomplicated retro-displacements of the uterus frequently cause no symptoms, and that in the great majority of cases, coexisting pathological conditions are crying more loudly for relief than the uterine malposition.

Although the etiology of retro-deviations of the uterus, as well as physiological function of the various uterine ligaments, are quite beyond the scope of this paper, still I feel justified in referring briefly to them, as a correct conception of these two important points is absolutely necessary in order that we may intelligently consider the various operations in vogue for the relief of this often troublesome condition.

[1] Read at meeting of Ontario Medical Association.

Etiology.

H. C. Coe,[2] of New York, says that aside from neoplasms the principal cause of departure from the normal position of the uterus, as well as for the distressing symptoms which accompany this change of position, is not in overweighting of the uterus, nor in relaxation of its ligaments, nor in weakening of its pelvic supports, but is rather due to atony of the general abdominal and pelvic musculature. Some women carry large uterine myomata without any pressure symptoms. On the other hand, a flabby young woman may get up in three weeks from an easy labor and a perfectly normal convalescence, without evidence of puerperal lesions or subinvolution, but yet retroversion is present, and is accompanied by such dragging and bearing-down pains that the woman is a semi-invalid. This is from the general loss of tone and not from the local condition.

Many women who have perineal lacerations and a moderate prolapse of many years' standing, do not consult a gynecologist until after the menopause; this is due to the general loss of muscular tone at that period. All the uterine ligaments, of course, participate in this general loss of tone.

Uterine Ligaments.

When we study human anatomy,[3] we find that the principle nature has applied to hold the various organs in place is that of suspension by ligaments. Briefly reviewing the organs of the human body, namely, the heart, the lungs, the liver, the spleen, the pancreas, the kidneys and the intestines, we readily admit that they are hung by ligaments from the bony framework of the body. Not one of them is held in place or receives support from anything placed beneath it. The ovaries and fallopian tubes hang on the posterior surface of the broad ligaments *by their ligaments.* Reasoning by analogy, and basing our conclusions upon the uniformity of nature's laws, the logical inference is that the uterus is held in place by its ligaments, and, weight for weight, no other organ in the body has so many ligaments.

That these ligaments are compelled to support the uterus is clearly demonstrated by the fact that, when the supporting power of the floor of the pelvis is absolutely destroyed by the perineum being torn clear through into the rectum, the uterus remains in place. The only exceptions to this rule are found in cases in which the uterus is displaced and dragged down

by complicating conditions that overcome the resisting power of the ligaments.

The chief action of the round ligaments is not suspensory, but rather to guide and limit the excursions of the fundus. In their quiescent state they hold the fundus to the front, and thereby secure the impingement of the intra-abdominal pressure upon the *posterior* surface of the uterus. With an overfull bladder the fundus uteri is carried quite to the promontory of the sacrum, and the intra-abdominal pressure is found to impinge upon the *anterior* surface of the uterus. The round ligaments prevent the uterus from being gradually crowded down into a permanent retro-displacement.

The main functions of the broad ligaments are to furnish a support for the uterine appendages, which are hung upon its posterior face, and to furnish safe conduct to the blood vessels in their course to the uterus.

The chief purpose of the utero-sacral ligaments if not their sole function, is to retain the uterus in its normal position. The two sets of ligaments—the utero-sacral and the utero-vesical—taken together, form a sling of tissue reaching from the promontory of the sacrum to the symphysis, in which the uterus hangs suspended by their attachments just above the internal os. The utero-sacral ligaments prevent descent of the uterus as a whole, while the utero-vesicals control the to-and-fro, or antero-posterior motion.

Various Operations.

A great many operations, some fifty in number, have been devised for correcting retro-deviations of the uterus. Some of these are worthy of mention, although many of them have practically fallen into disuse.

The operations of vaginal fixation of the uterus, operations upon the anterior and posterior vaginal walls, as well as operations done *through* the anterior and the posterior cul-de-sac; for example, on the utero-sacral ligaments and on the round and broad ligaments, do not properly come within the range of this paper, so will only receive a passing notice.

We now come to the consideration of the two most reliable operations employed for the relief of these backward displacements of the uterus—the two which have successfully stood the test of time and experience—the two which receive greatest prominence in our most recent text-book literature. I refer to (1) Alexander's operation of shortening the round ligaments, and to (2) ventro-suspension of the uterus. Most, if not all,

of the other operations are only on probation, while many have have been distanced in the race or fallen by the wayside.

Bland Sutton,[4] in the 1904 edition of his work, says: "Hysteropexy and the operation for *shortening the round ligaments* are the two principal methods of dealing with this condition.

Penrose,[5] in his work of 1904, says: "The two operations that have deservedly met with the greatest favor are *ventro-fixation or ventro-suspension of the uterus* and Alexander's operation."

Dudley,[6] in his book of 1904, mentions: (1) Alexander's operation, (2) abdominal hysterorrhaphy, (3) vaginal hysterorrhaphy.

Garrigues,[7] in his Gynecology of 1905, only mentions: (1) Alexander's operation, (2) vaginal shortening of the round ligaments, (3) shortening the round ligaments from the abdominal cavity and (4) ventro-fixation, or suspension of the uterus.

Montgomery,[8] in his text-book of 1900, says: "The operations for the correction of retro-displacements of the uterus consist in manipulation of the natural ligaments, such as the shortening of the round ligaments, which may be *extra-peritoneal or intra-peritoneal,* ventro-fixation or *suspension* of the uterus, and *vaginal operation* for fixation.

Reed,[1] in his text-book on Gynecology of 1901, includes the various operations under three headings: (1) Shortening the round ligament, (2) ventral fixation or *suspension,* (3) vaginal fixation.

Herman,[9] of London, in his work on Diseases of Women of 1898 (p. 157), mentions three surgical methods of dealing with retro-deviations of the uterus: (1) Vaginal fixation, (2) Alexander's operation, (3) ventral fixation.

You will observe that all the authorities quoted mention Alexander's operation and ventro-suspension of the uterus, while some add other operations to the list.

Alexander's Operation.

Alquie,[10] a Frenchman, conceived the idea of shortening the round ligaments for retroversion in 1840. He did not operate. Alexander, of Liverpool, performed his first operation in 1881. Adams, of Glasgow, operated independently two months later than Alexander, but published more than six months earlier. But I shall not go farther into the history of this operation, neither shall I consume time by a description

of its *modus operandi,* both of which may be far better obtained by reference to any standard work on the subject.

Garrigues[7] says: "This should be the operation of choice, but it is contra-indicated if the uterus is held back by adhesions, or in old women in whom the ligaments become atrophic."

Herman, of London, says: "Alexander's operation permanently cures retroflexion of the uterus, but it does not cure prolapse. If cystocele is associated with retroflexion, your patient will not be cured. It is not without danger, which comes from the difficulty of the operation, difficulty in finding the ligaments. In many cases operators have failed to find them, and fatal injury has been inflicted in the search. The pulling on the ligaments interferes with their blood supply, and resulting inflammation may lead to deep suppuration which may spread to the peritoneum with fatal results; or the suppuration may come toward the surface, leaving a weak canal. Later, the ligaments may slip back and the uterus become displaced again. A canal thus weakened by suppuration favors hernia; in fact, the inguinal canals cannot be wholly or partly opened up without favoring hernia.

Reed[1] considers Alexander's operation indicated in any backward or downward displacement in which there are no adhesions. Where the uterus is greatly enlarged and the utero-sacral ligaments are also relaxed, very little benefit can be expected to follow Alexander's operation alone.

There are several complications to be taken into account. Adhesions in the inguinal canal sometimes effectually prevent the drawing out of the cord. We may encounter a delicate cord. In a few instances the cord will break. In some instances it has been found not to run through the inguinal canal.

Penrose[5] says the field of this operation is very limited. It is not applicable when there are adhesions, nor when there is disease of the tubes or ovaries requiring operative treatment.

Montgomery[8] mentions the disadvantages of Alexander's operation as: (1) Two incisions have to be made. (2) The operation is limited in its application. It is only in those cases in which the uterus is mobile that we can practise the procedure. (3) The round ligaments are sometimes so attenuated as to be of little use in maintaining the organ. In one operation of his the ligament on one side was entirely absent. (4) In cases of infection the infected ligament may slip back, carrying infection in beneath the peritoneum.

Pryor[11] does not endorse Alexander's operation. The operation has two disagreeable sequelæ; hydrocele of the ligament and inguinal hernia. He has collected fifty-four cases of hernia resulting from the operation. He says curettage and properly performed plastic work will cure uncomplicated retroposition whenever Alexander's operation can, and without its accidents. Pregnancy is not influenced by it.

Dr. E. C. Dudley[6] says, in the last edition of his Gynecology, that: Alexander's operation is only permissible when the operation is not complicated by a tumor, inflammation of the uterine appendages, adhesions or other impediments to replacement. The field, therefore, is not very great.

Ventro-Suspension.

The operation of ventral suspension[10] of the uterus will be always inseparably connected with the names of Ohlshausen, of Berlin, and Kelly, of Baltimore, for having the genius of proposing, executing and describing a systematic operation; although a similar operation had been previously performed by other surgeons in isolated cases and with indefinite plans. For a description of the technique of this operation I would refer you to Kelly's "Operative Gynecology," or to some other of the many excellent works on the subject.

Herman[9] says: "In retroflexion with descent, in which pessaries fail, ventral *fixation* is the only treatment that will cure." He has known patients who have been invalids for years made able to lead active lives by this operation.

Reed[1] speaks of *fixation* and not of *suspension*, and says it is limited to those cases in which pregnancy is impossible, and to cases of very severe prolapse with great relaxation.

Penrose[5] says the operation that at present seems to possess most advantages for the cure of those cases of retroversion of the uterus that cannot be cured by the pessary, is the operation of ventro-suspension of the uterus. If this operation is properly performed, the course of subsequent pregnancies and labors seems to be in no way impeded.

Montgomery[8] asserts that ventro-fixation permits the inspection and treatment of intra-peritoneal conditions which is of great advantage. A disadvantage is that it has been found to interfere in some degree with gestation and labor. He also mentions a case where a large portion of intestine slipped behind the band of adhesion, became strangled and caused death.

Garrigues[7] says it is better to shorten the round ligaments than to fasten the body of the uterus to the abdominal wall, as the pseudo-ligament has more than once led to ileus and death.

Pryor[11] thinks ventral fixation objectionable because it pulls the body of the uterus out of the pelvis into the abdomen. He also says it straightens out the utero-sacral ligaments, causing them to come together and constrict the rectum. He is of opinion that the operation has little effect upon pregnancy, but conduces to faulty presentations of the fetus and to dystocia.

Dudley[6] states that the contra-indications of Alexander's operation become at once the indications for abdominal section and suspension. Hence the field for this operation is much wider than for the round ligament operation.

Bland Sutton[4] says hysteropexy and the operation for shortening round ligaments are the two principal methods of dealing with this condition, but he strongly prefers hysteropexy, as it is the more satisfactory operation and gives excellent results. In a small percentage of cases of hysteropexy it has been followed by difficulties during labor. These risks are small when the attachments are properly made.

Howard Kelly[12] suspends the uterus only in cases of persistent retroflexion which refuse to yield to similar plans of treatment through the vagina, and then only when the discomforts of the retroflexion are sufficient to interfere seriously with health.

The two principal objections made against the operation of ventral suspension of the uterus are its supposed influence upon pregnancy and labor, and the risk of a portion of the intestine slipping behind the suspensory ligament, becoming obstructed and thus causing death.

Let us notice what some authorities say on the subject. Howard Kelly[12] remarks: "I have heard from 49 married women upon whom I have performed my suspensory operation at a date sufficiently remote to form a judgment as to the result. They reported 14 cases of pregnancy, and in only one of these was there any complication attributable to the suspensory operation. In that case the uterus was suspended, not by the fundus, but by the ovarian ligaments. The womb became infected, the ligatures were discharged, and the uterus was bound to the abdominal wall by *broad dense adhesions*. This woman had an instrumental delivery and recovered.

Penrose[5] and his assistants did ventro-suspension 310 times in seven years; 211 of these women made written reports of their condition. Of the 20 women who became pregnant and went to full term, the course of pregnancy was normal, and the

children were all born alive. One woman had a prolonged and difficult labor, though the forceps were not used. In one case forceps were used to deliver a 10-lb. child, who presented in occipito-posterior position; in the remaining 18 cases labor was normal. Eight cases out of this series miscarried. The operation of ventro-suspension seems to have had nothing whatever to do with producing the miscarriages. The author still continues to perform this operation with equally satisfactory results, and says if this operation is properly performed, the course of subsequent pregnancies and labors seems to be in no way impeded. The operation should always be accompanied by perineorrhaphy and trachelorrhaphy when these operations are required.

Beyea[13] makes the statement that there is scarcely an operation in surgery which has been subjected to more adverse criticism than ventro-suspension; no operation which has been more often incorrectly performed and its objects more often misunderstood.

We hear from one quarter that as a result of the abdominal adhesion, the course of gestation has been greatly interfered with; we also hear of the induction of labor, and even in a few cases Cesarean Section has been necessary, that labor at term is difficult and complicated, and that abortion or miscarriage often occurs. It is said that an intestine has caught behind the suspension ligament and intestinal obstruction, resulting in death, has occurred. It is also said that recurrence of displacement frequently takes place.

Beyea[13] says: "Regardless of these criticisms, which must be accepted as facts, and which form the standpoint of the writer's condemning the operation, in my experience of eleven years in 465 cases, ventro-suspension of the uterus has ever proven an efficient operation, has never been complicated and never produced abnormal gestation or complicated labor."

I believe in the large majority of cases where failures occur or where serious complications arise, it is the fault of the particular method of ventro-suspension performed by the operator and not the fault of the operation itself. A positive fixation and not a suspension has been performed. Other operators fail to obtain a sufficiently strong suspensory ligament, and displacement or failure follows.

If the proper conditions of this operation are secured, then the complications of gestation and labor will not and cannot occur.

Dr. Beyea[13] wrote letters to the 465 women operated upon

and had replies from 272 of them; 94 per cent. of those who replied were either restored to excellent health, or good health, or improved in health as a result of the operation of ventro-suspension alone, or combined with other operations required on the appendages or perineum and cervix. About a dozen of the women said the uterus had gone back, but in an examination of two of these, the uterus was found in good position. The report of recurrence came chiefly from women who had since borne children.

Beyea reports a personal knowledge of five cases of recurrence. In three it occurred before the patients left the hospital, in two as a result of coughing in an attack of pneumonia, and in the other the attachment was separated by the resident physician in removing the sutures from the cervix. In another, the woman, regardless of advice, took up heavy household duties immediately after returning home, lifting an 18 months' old child several times a day. In the fifth case the uterus was found retroverted to the second degree, and on opening the abdomen again the ligament was seen attached to the *anterior* surface of the uterus well below the fundus, which doubtless accounted for the recurrence.

I here quote from Dr. Beyea[13]: "The important question, the influence of this operation on the course of gestation and labor, I wish to particularly call to your attention. Of the 272 women, 153 are now at the time of this study, married; this number including such as have had operations on the tubes which might render them sterile; 119 are single or widowed, or the operation rendered them absolutely sterile.

"Of the 153 married women, 41 have been pregnant since operation; 37 have gone to term and borne a living child; 5 have twice borne a child; 2 have given birth to twins; 1 twice. One woman died of eclampsia following a normal labor; in 4, instruments were used at birth; once for posterior rotation of the occiput; in 1, there was an unusual, but not sufficient to be termed post-partem, hemorrhage: in 2 the labor was long and difficult, one lasting three days, and in one there was hemorrhage during pregnancy, the cause of which was not determined. In none of the 47 labors as described by the patients and the attending physician was there complication which could be attributed to the operation. It was thought possible that the operation was the cause of the hemorrhage in the one case following labor, but there was no proof.

"As to the other complications, the use of forceps and long labors, they are complications which are not infrequent where

no operative procedure had been performed upon the uterus, and are not more than normally frequent here.

"Nine of the 153 women have aborted or miscarried; 5 twice; all before the sixth month; 9 or 14 miscarriages or abortions, considering those induced, for these cases represent all classes of women, is not more than the average percentage in 153 women.

"There were no operative complications, no instances of intestinal obstruction in any of the 465 women. There was 1 death, which occurred 18 hours after a cervical dilatation and ventro-suspension of the uterus, the operation lasting 30 minutes. The post-mortem failed to discover the cause of death, and the conclusion was that death resulted from surgical shock, for there was a rapid, failing heart action. The mortality, 1 death in 465 cases, was therefore a little less than one-fifth of 1 per cent.

"Considering that this experience extends over a period of 11 years and represents an accurate study of 465 cases in which the special method of ventro-suspension of the uterus described was performed, with the fact that 41 of the 153 married women have become pregnant, gone to term and passed through normal labors; that but 9 of the same women have miscarried; that there have been but 5 recurrences of the displacement, always for a sufficient and active cause, and that 95 per cent. of the 272 women responding to communication report complete relief of symptoms or improvement in health as a result of the operation, the conclusion is warrantable that this particular method of performing ventro-suspension is completely satisfactory and its results most gratifying. Its mortality being one-fifth of 1 per cent. in our experience, makes it practically free from danger to life, and no objection can be offered for this reason. Its performance is most warrantable and its sequelæ less frequent than the extra-abdominal operations, such as the Alexander-Adams."

Personal experience makes stronger impressions upon the mind than text-book literature. I have done the operation of ventral suspension of the uterus 24 times in my own practice, and have probably assisted my colleagues in an equal number, making in all an experience of about 48 operations. I have carefully preserved notes of all my 24 cases. In 3 of them I had occasion to reopen the abdominal cavity at a period of nearly three years after the suspension had been done, 1 for appendicitis, 1 for ovarian cyst, and the other for disease of the ovary. In each case the uterus was in good position with a suspensory ligament from 2 to 4 inches in length still

present and apparently on duty. In one of these three, the young lady had got married and had a child at term, the labor was normal, both mother and child did well. On opening her abdomen the second time, I had the opportunity of demonstrating to my private gynecological class a uterus in normal position and a suspensory ligament of between three and four inches in length, which had evidently participated in the involution of the uterus, which normally followed her delivery.

In only one instance, so far as I can learn, has redisplacement occurred. This was in a stout lady 44 years of age. The uterus was large and heavy—sound, passed 3½ inches. There was also prolapsus uteri; a long, thick lacerated cervix protruded 1½ inches outside of vulva. It was of long standing. She was curetted, cervix repaired and ventral suspension performed. Patient did well for over one year, when a sudden fall on the buttocks was blamed for causing redisplacement.

Personally, I feel that in her case the special operation was not well chosen. I should have amputated the cervix, tied off the tubes and performed a positive ventral *fixation*. A long cervix has not sufficient room in the vagina to lie comfortably across that canal, so aided by the action of intra-abdominal pressure on the long cervix, the latter gradually assumes a position in the axis of the vagina, the fundus uteri falling backward, so in this way retro-displacement and prolapse again occurs.

Choice of Operation.

In putting experience, practice, theory and study of the lilterature together, I come to the following conclusions:—

That the conscientious, resourceful operator will be bound by no rule, but will aim to suit the operation to the particular case in hand. If for any reason the posterior cul-de-sac has been opened, an attempt should be made to correct a retrodisplacement by one of the methods which fix the cervix well back in the hollow of the sacrum—Pryor's for example.

That Alexander's operation should be the operation of choice in all *uncomplicated* cases. That complications are the rule, consequently this method is very limited in its field of usefulness. That uncomplicated cases are those in which any operation is least indicated. That all methods of shortening the round ligaments by doubling them up from within the peritoneal cavity, utilize the strong portion of the ligament leaving on duty the weak, stretched portion within the abdominal wall to stretch again in course of time.

That ventral suspension—not fixation—when properly performed in combination with other procedures, does relieve the malposition, and prevents, more surely than any other method a recurrence of the same. Its dangers are small, if any, in subsequent pregnancy and delivery. It has the advantage of being quickly and easily performed, and is applicable in all cases where any other method is, and in very many cases it is the only method that offers a reasonable hope of permanent cure.

That those who criticize most severely the two time-honored operations—Alexander's and ventro-suspension—are those who have some pet operation of their own, or a modification of some one else's to extol.

In conclusion, Mr. President, I am here to make the statement that while ventral suspension, in common with every other human endeavor, has its failures as well as its successes, it more nearly approaches a universally applicable operation for retro-deviations of the uterus than any other method known to the medical profession.

184 Spadina Ave., Toronto.

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RESECTION OF THE SPLENIC FLEXURE OF THE COLON, MALIGNANT DISEASE, WITH EXHIBITION OF PATIENT AND SPECIMEN.

By INGERSOLL OLMSTED, M.B., Hamilton.

This patient, Mrs. X——, was seen with Dr. Arnott, of Hamilton, on the 6th of March, 1904. He informed me that she had been taken seriously ill three days previously with cramps in her abdomen, sickness of the stomach and vomiting. She had not had any movement of the bowels for three days before her attack. Her abdomen became distended and, in spite of purgatives and high enemas there was no free evacuation. She had had some fever and increased frequency of pulse. When I saw her she was much better, the bowels had moved freely and she said she was nearly well.

Her history obtained, is as follows: With the exception of one sister, who died of a tumor of the womb, her family history is excellent.

She has had nearly every disease of childhood. She married, had two children, but no miscarriages. During the last 18 years she has been troubled with asthma. The menopause occurred in her forty-sixth year, and was unaccompanied by any particular unpleasantness. She has always worked hard, has been a hearty eater, but was never troubled with any disturbance of the digestive tract till two years ago.

The present illness began quite suddenly in January, 1902. She awoke one morning with crampy pains in the abdomen, nausea and vomiting. The pains were felt especially around the naval and left hypochondriac region. There was some abdominal distension and constipation of the bowels. The bowels acted after a large enema had been given, and fresh blood was seen in the stool.

During the last two years she has had frequent attacks like the one described, which lasted from one or two hours to two and three days. Relief came as soon as the bowels moved, and almost invariably some fresh blood was found in the stools.

Two of these attacks were quite severe, one in October, 1903, which lasted about ten days, and another in January, 1904, which lasted two weeks. It was very difficult to get the bowels moved at that time, and she had considerable fever.

* Read at the Ontario Medical Association, Toronto, June, 1905.

Between the attacks she would have about two stools daily, but at no time did she have a large, well-formed motion. When one of her attacks appeared, and enemas were given, small, hard fecal masses about the size of marbles came away. During the attack in January, 1904, Dr. Arnott felt a lump, about the size of a walnut, in the left side of the abdomen, between the last rib and the ilium. After the attack this lump could not be felt. Her weight had diminished about thirty pounds during the last two years, and she has been almost free from her asthma.

She is a medium sized woman, fairly well nourished. The lungs are slightly emphysematous, heart sounds normal, arteries somewhat thickened and urine negative.

The abdomen is not distended and no peristaltic waves are visible. The liver has normal dimensions. On palpation, a lump about the size of a small orange is felt in the left flank, just under the edge of the ribs. It possessed very little mobility.

A diagnosis of cancer of the colon was made, and operation advised.

She entered the City Hospital and was operated on on the 12th of March, 1904.

Under ether anesthesia a long oblique incision was made, following the course of the fibres of the external oblique muscle, just to the inner side of the tumor. On opening the abdomen this tumor was found to be in the upper part of the descending colon and attached to the inner part of the transverse colon, the splenic flexure being free. The great omentum was attached to and covered the inner side of the growth. No grandular involvement could be felt.

The mass, including the distal end of the transverse, splenic flexure and upper end of descending colon, was freed from its attachments, clamped off with Kocher's intestinal clamps and removed. The two divided ends of the bowels were brought together and an end-to-end anastomosis was made by means of sutures over a large Robson bone bobbin. The coats of the proximal portion of the bowel were very much hypertrophied. Three rows of sutures of fine black silk were used in making the anastomosis, and the omentum was also stitched over the junction line. The abdomen was closed without drainage.

There was very little shock following the operation, and convalescence was without incident.

She returned to her home at the end of three weeks, and has gained in health and weight ever since.

Strange to say, her asthma has returned, and now it is the only thing she complains of.

On opening the bowel and cutting through the tumor, the growth is found to almost completely close the lumen of the intestine, only a small opening, which would scarcely allow the passage of the small finger, being left through the centre of the growth. The upper surface of the growth is ulcerated, and lying free in the bowel above this is a plum stone. This had evidently acted like a ball valve. The patient says she remembers having swallowed a plum stone the previous fall.

The tumor proved to be a cylindrical-celled epithelioma.

CONSTITUTIONAL TREATMENT OF TUBERCULOUS DISEASE IN BONES AND JOINTS.

By W. E. GALLIE, M.B., Toronto.

The treatment of surgical conditions among children consists very largely of a struggle with tuberculosis. A study of the statistics, compiled at the Hospital for Sick Children, since 1891, shows thot disease of the hip, spine, and knee, constitutes fully three-fourths of the cases admitted to the surgical department. The presence of so large a number of these cases in our hospitals has led to a fine development of the orthopedic treatment of the disease, and has also directed our attention to the great good that can be accomplished by the judicious employment of the therapeutic agents that nature has placed in our hands. It is by the employment of these latter forces that we hope to raise the vital resistance to such a degree as to arrest the advance of the disease, and to allow the process of regeneration of fibrous tissue to finally obliterate it altogether.

The most important of the natural forces is to be found in the open air. Oxygen is the universal antitoxin, and therefore, the purer and more plentiful the supply, the higher will be the vital resistance. Experience has thoroughly proven this theory, as the hospital records conclusively show. For example, the following history:

A boy, aged ten years, was admitted to the Hospital for Sick Children suffering from knee-joint disease. The joint was in the acute stage, extremely painful when touched or

* Extract from paper presented to the Post-Graduate Society of Toronto.

moved, and manifesting the usual deformity of flexion, with spasm of all the surrounding muscles. His extreme pallor and emaciation clearly showed the deep constitutional inroads that had been made by the prolonged absorption of toxins and the constant presence of pain. For a month he underwent the usual treatment for this condition, but in spite of the fact that everything was done for him that orthopedic science and dietetic and tonic treatment could devise, he practically made no progress toward recovery. He was then transferred to the Lakeside Home on Toronto Island, the summer home for the convalescents from the city hospital. The effect of [illegible] was most remarkable. In six weeks he had gained fifteen pounds in weight, and the pain, of which he had been a constant sufferer, had completely disappeared. Examination of the knee showed that all the acute symptoms had passed away, and from that time onward he continued to steadily progress. At the end of the summer he was discharged from Lakeside, wearing a Thomas splint, practically completely cured.

But it is not isolated cases that we are obliged to resort to to demonstrate the value of the fresh air treatment. The history cited above is simply an example of the results obtained in the great majority of these cases. During the winter months there is in many instances a considerable loss of ground, and at best a mere arrest in the advance of the symptoms, while in the summer, when the patients are at the Island, there is invariably marked improvement.

The method of administering the fresh air treatment is very simple. The Lakeside Home is so constructed, that for each ward, there is a verandah of equal size, facing either to the south, east or west. On these verandahs the patients lie in their beds, both night and day, only being removed to the ward in stormy weather. Awnings are arranged for protection from the sun during the hottest part of the day, and to shut out the wind on gusty nights, but in the mornings and late afternoons a sun-bath forms part of the routine treatment.

This method of dealing with the disease seems to be an ideal one, and gives the only hope of checking its advance, no matter in what part of the body it may be found. It is the suggestion of this paper, that whenever possible, tuberculosis of bones and joints be treated in sanitaria, or if this is impossible, in the homes of the patients. in exactly the same manner as is outlined in the modern treatment of tuberculosis of the lungs. It cannot be doubted that many lives are being lost or rendered useless by the non-appreciation of the benefit to be derived from the proper application of the principles of hygiene, and

the sooner the public becomes acquainted with the splendid results obtained at the Lakeside Home, the sooner will the long list of disastrous results obtained from ordinary treatment be diminished.

Other points in the general constitutional treatment may be referred to more briefly. Bodily exercise is naturally beneficial. This brings up the great question of the relative merits of tht rest, and ambulatory treatments of the disease. By some it is advocated that absolute rest of the limb is imperative until far on into the stage of convalescence. Others say that if the patient were allowed up early, with as efficient fixation of the joint as is possible by the use of apparatus, this stage of convalescence would be reached much earlier. This seems to be a question to be solved solely by a consideration of the class of the patient, and the means at hand for establishing the open air treatment. In New York, where an enormous out-door practice is carried on among these patients, it is the custom to put them at once into ambulatory splints and to let them walk about in the open air, and thus to some extent to counteract the effect of their unsanitary homes. Here in Toronto, where we are able to deal with all such cases within the hospital, a median course is pursued, a course which is probably the ideal one. For the first four or six months ,the patient is confined to bed, absolute rest in the joint being enforced. If at the end of that period, the acute symptoms have fairly well subsided, he is allowed to get about with the aid of an ambulatory splint. There is an indefinite point in the progress of a case, before which it would be risky to allow the jarring which must be encountered in walking, but after which, it is better to employ the aid to convalescence, of allowing the patient to walk about and enjoy some healthy exercise. The risk of allowing a patient up too early is demonstrated by the frequency with which these patients return to the hospital, within a month or so, with all the acute symptoms as pronounced as ever.

But although it has been decided to keep the patient for some months in bed, this is no reason why he may not have a certain amount of exercise. At the Children's Hospital, the patients are allowed to use their arms to the fullest extent, and often calisthenic exercises are practised to develop the muscles and lungs. Breathing exercises are of great benefit, increasing the vital capacity of the patient, and insuring more perfect oxygenation of the tissues. Combined with these, massage is useful, taking the place to a certain extent of the vigorous muscular contractions of a healthy child.

With regard to diet, the methods employed in the Sick Children's Hospital have nothing new to advance. The principle which guides the choice of diet is the one that prescribes for patients of diminished vitality, nutritious and easily digested food. The idea that it is wise to stuff a tuberculous patient and load him up with a weight of fat was long ago abandoned, since this process only increases the auto-intoxication, the very thing we wish to avoid. Eggs and the rare meats, therefore, constitute a large part of the solid foods, and milk has a prominent place among the fluids. It is often very difficult to get these patients to eat anything at all, and in these cases the finest art of cookery must be introduced to stimulate the flagging appetite.

Of the use of drugs as tonics little can be said, except that it is not wise to give these patients any medicines that are likely to injure the stomach and the process of digestion. Iron is probably of some use in correcting the anemia which develops in this, as in all wasting diseases, but care must be employed in its use, because of its effect on digestion. Cod liver oil and the hypophosphites are often administered, but we are unable to report any brilliant results from their use. It is not from the use of drugs that we can hope for a rise in the vital resistance, but from the judicious and persistent employment of the sun, the air, and good, nutritious food.

Selected Article.

THE PREVENTION OF APOPLEXY.

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From the time of Hippocrates physicians have aimed, by methods better and worse, at the forecast of disease. They have perceived that successful forecast is not only of prime utility in the particular case, but is the test by which they must be judged concerning their knowledge of the causes of disease, a knowledge in which must lie, in the long-run, our command of the means of cure. And if, leaving the particular instance, we turn our eyes towards the broader incidence of disease, we shall see that a knowledge of causes is the only way to what is far more than individual cure, namely prevention. On such considerations as these we may be content to be judged to-day. To the great Italians of the early renascence we owe far more than we are wont to acknowledge. To them we owe not, indeed, Harvey himself, but surely the spirit and the teaching which made Harvey what he was; and as in Harvey physiology began, so pathology had its chief source and inspiration in Morgagni.

Virchow has said that the key to Morgagni's reform was the substitution of the question, Where is disease? for What is disease?—the substitution of an enquiry into the place and order of the phenomena, instead of that which had ruled the Middle Ages, the enquiry into the essence of disease. Since Morgagni's day the revelations which have rewarded this change of attitude and method have been prodigious, and not in the direct results of anatomical search only. By the new method wide and deep changes have penetrated thence into the fields of clinical and therapeutical knowledge. In therapeutics, for instance, the distance between Morgagni and Wilks was as great as in morbid anatomy itself. The reform was sound, useful and progressive, almost above our appreciation. Yet, like all reforms, it has had its defect or partiality. To ask, as Virchow put it, Where is disease?—unless we give an infinite extension to the word "where"—is to convey too stationary a sense to the problem; to make it too static. Among the consequences of this limitation was a certain fatalism, both of pathology and of therapeutics; and this the more that, as in

the vast majority of cases the necropsy does not take place till the disease has wrecked the organs affected, the mind is impressed by the destructive and inevitable aspect of the event, rather than by the processes, often very protracted and insidious, in which the event was generated. It is recognized on all hands that from this static attitude of observation prognosis and therapeutics suffered much loss; and during the last decennium the acuter observers of clinical phenomena have been engaged in encouraging a less fatalistic prognosis in diseases of the heart and kidneys, in tuberculosis, and in many other maladies. In diseases of the nervous system, as we should expect in the sphere of greatest complexity, one in which the causes are more profoundly withdrawn from direct observation, this fatalism still oppresses the physician. Where these diseases are seated is but too apparent; but by what processes they accumulate is as yet concealed from us. Now the ravages of disease are grievous enough without the despondencies of the post-mortem room. We shall gain heart, and the patient will gain hope, if we turn our eyes for a little while from this theatre to the clinical laboratory, in search of the genesis of disease; in an endeavor to detect the first small beginnings, which, unchecked, issue in such miscarriage. We shall not indeed go back to enquire, What is disease? but we shall not stop at the morbid anatomist's question, "Where is disease?"; we shall ask farther, How is disease?

Clinically, we have given up the catastrophic notion of disease; we have learned that its catastrophies are sudden only to him who is blind to their approaches. The springing of a mine is astonishing to its victims, but is no surprise to the sapper who laid it, who carried the clues to his tent, and at the just moment touched the button. The very name of apoplexy —in Latin, *sideratio*—signifies a stroke as if from the stars; the victim is, as it were, planet-stricken. And so it appeared to our fathers who gave it the name, and to many a generation after them; nay, so it appears still to the inexpert public. Yet nowadays the pathologist himself—possessed at first with fatalist submission, silent before the violent outbreak of blood into the delicate web of the brain, pondering in helpless dismay what man could have done in face of such a stroke—has begun to try to get behind the catastrophe. Now he is demonstrating to the bystander that granular kidneys, perhaps,—at any rate damaged arteries, and an abnormal heart, are precedent conditions. So that the event is surprising only to the unwarned. At this stage the eager mind questions farther and farther—

how comes it that these arteries, these kidneys, this heart, are so changed? For all this is no swift infliction; it signifies modifications implying a long duration and gradual progress, modifications which again cannot have been without their insidious causes to take us farther back still; and so on. Thus, as in tuberculosis, we are laying aside the attitude of amazement or resignation, and are putting on that of the scout; if perchance we may detect the first approaches of the enemy, or even by timely diplomacy prevent him before war is declared. We are receding from the fatalism of the early pathological anatomists, and returning to that desire for more and more timely forecast which distinguish the schools of Cos and Cnidus; the forecast in which lie the proof of scientific knowledge and the means of prevention.

At the present time we are enthusiastic in the foreknowledge and prevention of tuberculosis; we are waylaying the epidemics in their courses; we are ardently pursuing the tracks of cancer; and as one by one we disarm them, we are gathering understanding and hope. It is my desire to-day to bring you to a like encouragement in respect of the apoplexy of cerebral hemorrhage.

That cases of "stroke" are not all the same kind, we have known for some time past; especially since the researches of Kirkes. On the cases in which healthy arteries are blocked by casual embolism, however, I have not now to speak; moreover, we will set aside all cases in which the effects of extrinsic poisonous or bacterio-toxic agents are concerned. We are to consider those in which disease of long-standing is found in the arteries about the seat of the hemorrhage. In a large number of these cases, however, we find no effusions of blood, or none in bulk, at any rate; the circulation of the brain is arrested, but by a silting up of the arteries rather than by rupture of them. Moreover, in these cases we find that the heart, abnormal as it may be, does not indicate present or previous hypertrophy; often indeed an atrophy. We find too that the arteries of these cases often present calcification of the middle coat, while the body at large is one in which senile change is far advanced, and probably not advanced prematurely—the patients do not run between sixty-five and seventy, but between seventy-five and eighty-five. In apoplexy by cerebral hemorrhage, *the outbreak in the brain is no fault of this organ, but* wholly its misfortune. By apoplexy we lose day by day able citizens whose mental powers before the fatal seizure were intact both in vigor and quality. The pathological signs are

those of some slow injury to the blood-vessels; but the heart is or has been hypertrophied, and the result of the conditions is rupture rather than occlusion.

Now what do we know, or what can we find out, concerning these awful visitations? For the last quarter of a century I have taught that in a large number of cases of sanguineous apoplexy the kidneys are not granular; and if in some of them they are fibrous, they do not partake of the nature of chronic Bright's disease. This I affirm on the condition of the secreting structures of the tubes, which dwindling or crushed as they may be here or there, present no foci, or traces of past foci, of degeneration or necrosis. Professor Osler has given his valuable judgment in favor of the proposition that a large number of cases of the kind we are contemplating are not attributable to chronic Bright's disease. Now, my belief is that if we can carry our analysis of causes far enough back, we shall reach a junction where we shall travel on a line of common approach to apoplexy with Bright's disease and to apoplexy without it; but for present convenience, and under the restriction of time, I must rule out the Brightian class. It is by the study in the first instance of the simpler case that we shall get back to the junction.

Now in a case of apoplexy what do we find in the damaged parts? Brain assumably healthy; heart hypertrophied; arteries spoiled: the phenomena lie then in the mechanism of the circulation. Thus, in accordance with our desire, we step back from the static point of view and enter upon the dynamic. We shall try to discover which of the variables in this function are altered? In a simple case the heart presents no primary changes, but changes altogether secondary; essentially it is not only healthy in tissue but has worked for a long time at high pressure, thus doing not less but more than its contract. Such changes as may be seen in it are compensatory, or, if morbid, evidently consequential. Then what about the arteries? These have undergone a change, call it atheroma, sclerosis—what you will, so long as we are agreed on signification—but, diseased as they are, they have not silted up, as in the cases we contemplated but to put aside, but have burst. Why have they burst? Because they have been submitted, not only to the mean pressure of age, but also to the augmenting mean pressures of a reluctant peripheral circulation. They have burst at last for the same reason that they have sustained gradual injury; namely, by the accumulation of obscure stresses, which, if we might observe and measure them, we

might avert and interpret. I put aversion before interpretation because happily in many conditions of life we can take up our guard before we know why we are the object of hostility, or even before we recognize our enemy. We do not know why in cases such as these the circulation is embarrassed: the cause of the reluctance in the periphery lies still beyond our ken. But, briefly, I may say that the cause must consist either in a narrowing of the calibres of the arteries or stream bed over a very extensive area, if not indeed universally, or in an increase of viscosity with excessive friction in the blood itself. I have been asked somewhat tartly how I demonstrate excess of viscosity, and in what it consists? My answer is, that I never said that the blood in these cases is more viscuous, but that there exist the two alternatives only which I have cited—narrowing of the channels and increased friction within the fluid itself. To decide which is the cause, or, if both, the degree of each in the combination, I never pretended. But I admit that it is not easy for me to conceive a contraction of arteries in all or virtually all areas without compensatory dilatation in some of them. It has been suggested to me that in elderly persons the depressor property of the heart and vaso-dilatation may be stiffened or abolished. But a simple test will indicate that our vaso-dilator mechanism is not much abated. Let an elderly man enter a hot bath. For a short time at first he will find the radial artery contracting; let him continue however to observe, and in two or three minutes he will find the artery beginning to dilate, until it is largely distended; and a coresponding afflux of blood takes place to the surface. This is not dilatation of the splanchnic area, it is true; but if vaso-dilator mechanism does not rust up in one area, it probably does not in other areas..

It is alleged that in the elderly the arteries become refractory because of sclerosis, whereby their walls grow sluggish or stiff. This explanation, by the way, is inconsistent with that which attributes excessive arterial pressures to arterial contraction over large areas. And in any case to attribute high pressure to sclerosis, and to overlook the large class of cases in which arterial degeneration is manifested without rise of pressure is bewildering. Again, by some writers increase of arterial pressure is explained as a "hypertonus" of the arteries, a resuscitation surely of that older pathology which used to attribute disease to "hypertrophy of the heart"? It is conceivable, of course, that a morbid state of the vaso-motor centre, due to some persistent irritation in the

spot, might keep up general and persistent vaso-motor contraction. Still this is not very probable, nor do I know that this is the view of those who discuss "hypertonus." Must we not assume for the present that hypertrophy in the arteries is produced by the same mechanism as in the heart, namely, by persistently excessive pressures on their internal surfaces? In my opinion the vice lies not in a morbid tone of the vessels, but in excessive internal pressures, such as obstruction at the periphery would set up. If, then, arterial spasm be also a factor in the hyperpiesis, it seems more consistent to atrtibute this to the same cause as that, whatever it may prove to be, which chokes the periphery. My observations are that in some cases of rising pressures without Bright's disease, arterial spasm, whether primary or consequential, is manifestly present; but in others, perhaps the majority, it is not obvious. In some we have what I have called the "large, lax and leathery" artery; in others we find the "wiry" artery. The first kind may be regarded as "arterial tension," for in these cases the effects of tension are very manifest in the consequent tortuosity of the vessels; in the walls of wiry vessels this stretching effect, and indeed the sclerosis itself, is less apparent. Yet in my experience the wiry hyperpiesis is far more difficult to reduce.

However, to come to the matter of prevention; if, concerning the mechanism of persistent rise of mean arterial pressure, we are in the dark; happily, there is less doubt as to the treatment of the condition. If the patient is to be saved from an apoplexy, it is only by long anticipation that the proclivity can be counteracted. It seems probable that a disposition to hyperpiesis runs in families; if so, in such families vigilance is imperative. But the tendency is too common to be regarded as one confined by any such hereditary limits. Even in children and youths it is by no means rare, though I have little information on the deferred consequences of hyperpiesis in such patients. Such information must be obtained from the family physician, who watches children from infancy to youth, from youth to maturity. This I can say, that in young people it may thicken the arteries plainly enough; but the thickening is of the muscular coat only, not of the intima, for it will disappear, as a hypertrophy of the heart disappears in persons who put aside causes of exceptional stress on this organ. The care of these juvenile cases, then, does not fall so near the group of potential apoplectics as to require our attention today. Still, I think a study of these precocious cases may throw

light not only on an undescribed disorder of children, but also upon the causes of hyperpiesis in the elderly.

The aim of this discourse is to prevent apoplexy, which is a message to elderly persons. I have held against all comers for many years that arterio-sclerosis, as distinguished from the sclerotic decay of senile involution, is not the cause, but the consequence of rising arterial pressures. In my view, then, prevention must lie first in the detection of a special tendency to a persistent mean rise. I need not say that occasional rises, even of morbid origin, are apt to occur in all persons, and to disappear before the vessels are permanently damaged. In others, however, the rise is persistent, often to very high degrees; yet if this tendency be detected in its earlier phases it can—in many instances, at any rate—be reduced and kept down; but the longer the story, the older the rearrangement of parts, the harder reduction becomes. I urge, then, that as a matter of routine every adult of the age of forty and upwards should have his blood pressures measured by the best instruments available—instruments which I have not now time to discuss. And I urge that this appreciation should be repeated every five years, say till the age of sixty, when, if there be no great increase—I say no great increase, for in almost all elderly persons there is some rise of mean pressure—the danger of apoplexy may be disregarded.

Of the principles of treatment of hyperpiesis we cannot be completely assured till the obscure points I have mentioned are cleared up. That there is any difference in treatment between the leathery and the wiry artery people I cannot say. So far I have not been able to discover more than that, as I have hinted, in the latter the perversion is far less submissive to deobstruent treatment, as generally understood, than in the former. Nor can I find any therapeutical divergence of practical value between burly, red-faced people and the spare and pallid. I am disposed to think, however, that pallor and wiry vessels are more frequent among the sedentary, and that the burly, red-faced people are of those who may over-eat and over-drink themselves, but take, on the other hand, much exercise in the fresh air. In the former there is a long history of relative excess in feeding; in the latter of positive excess. It cannot be too earnestly declared that nearly all men, and not a few women, take far more food than they need; and that the sedentary persons, such as scholars, lawyers or merchants, although prompted by some nervous exhaustion, they live more generously than cowboys, need very much less food

than they habitually consume. If, then, in any person we find persistent rise of mean pressures, we shall revise his mode of life; advising regulated exercise, abstinence from alcohol—which, if not an initiator, is a potent ally of other influences—and a great reduction in intake of food. In these cases also, the regimen and the waters of certain spas—such as Harrogate, Carlsbad, or Marienbad—are invaluable.

The readiness of response in individuals is very various. In some, as I have said, reduction is attended with much difficulty; in others a couple of seasons at a bath, with punctilious restriction of diet and regular exercise, suffice to put the danger aside, at any rate for a time. In others, do what we may with regimen and medicines, such as mercury and salines incessantly brought to bear, the rise, even if set back, comes up again and again. In such persons the ultimate result of apoplexy is pretty certain. It seems probable that the systematic blood-lettings of our forefathers, who were big feeders, was a rough-and-ready method of preventing morbid augmentations of blood pressures; and I am disposed to think that, practised with more discrimination, we might find in it a valuable remedy in the habit of body I have alluded to. I must honestly confess, however, that I have not had the moral courage to recommend it. Vaso-dilators are, as we should expect, disappointing. The high pressure is conservative, so that to reduce the pressure without removing or relieving the causes which import it is to set natural readjustments at naught. So long as the high pressures can persist the blood is driven through the periphery, and the patient may feel well enough; it is when the cardias energy begins to slacken, and vaso-dilators are apt to slacken the heart also, that he suffers from the sense of exhaustion, the vertigo and the morning melancholy which vaso-dilators bring on factitiously. Notwithstanding, vaso-dilators may on occasion aid us at critical moments.*

I need not say that if a slight apoplexy occur, these measures must be undertaken with the more determination. Too often, unfortunately, we are not consulted until the enemy is upon us; still, even then, on the lines I have indicated, a return of the attack may be postponed with no little success.

In conclusion, let me urge upon you in all cases in which you are consulted by middle-aged persons, to note the blood pressures, and if possible to record them by means of one of the instruments which give us at any rate approximate estimates in this research. Not rarely, in consultation with

physicians whose ability is above my praise, I note high blood pressures which they had not heeded, although they may freely admit the truth of the observation when their attention is drawn to it. Even the most capable of us are apt to see what we expect to see, and that only. Moreover the most erudite finger cannot always be trusted. It is my purpose, therefore, to invite you to take heed to the state of pressure in all middle-aged patients, and, if occasion occur, in persons who, not admitting any ill-health, may nevertheless be breeding an apoplexy unawares; a few years more neglect, and the event, unless anticipated by a fatal pneumonia, may be inevitable.—*Bristol Medico-Chir. Jour.*

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON, C. J. COPP AND F. A. CLARKSON.

Almost Complete Absence of the Inter-Auricular Septum, with Infective Endocarditis.

Total absence of the inter-auricular septum is very rare, hence the following case is of special interest. For three weeks the patient had experienced a general malaise, had frequent spells of coughing, dyspnea and diminution of appetite. The day before entering the hospital he had small but repeated attacks of hemoptysis. When seen by Collet and Beriel he had great dyspnea, but was not cyanotic. Examination of the heart showed considerable hypertrophy; the apex was in the sixth space, where also could be heard a systolic murmur, extending towards the axillary line and the back. Respiration at the base of the lungs was somewhat muffled. The liver extended two finger-widths below the ribs; the urine contained albumen. Two days later there was heard another systolic murmur over the pulmonary orifice; the temperature ranged from 37 deg. to 40 deg. Subsequently there developed general edema, blood-stained sputa and dulness over the bases of the lungs. Only three days before death was there noted a distinct cyanosis. At the autopsy, numerous foci of broncho-pneumonia were found in the lungs. The kidneys, on histological examination, showed evidence of subacute nephritis. The heart was much hypertrophied, specially on the right side; the inter-auricular septum was absent and the auricles communicated through a large opening limited only by a ring of scar-like tissue; there were also evidences of endocarditis and mitral insufficiency. As for the origin of the condition, it could possibly be due to an ulcerative endocarditis of infancy that had not been diagnosed. The greater probability was that it was a congenital malformation. A fact worthy of note was the absence of cyanosis, in spite of the free mingling of venous and arterial blood. The cyanosis observed during the last three days of the patient's life was due to the foci of broncho-pneumonia and to the infarcts, which considerably disturbed the pulmonary circulation.—Translated from *Giornale Internazionale delle Scienze Mediche*, by HARLEY SMITH.

Insufficiency of the Heart in Mitral Affections.

Stein, as the result of clinical and histological investigation of the heart in thirteen cases in which the disease was of rheumatic origin, tries to prove that the symptoms of cardiac asthenia in affections of the mitral valve, do not always depend on myocarditis. Of his patients only four presented evident lesions of chronic myocarditis; in the other cases, there were found only small foci of sclerosis in the myocardium; the connective tissue in these foci was an adult fibrous connective tissue, embryonal cells being found only occassionally. The small size of the lesions found (none was visible to the naked eye), and their varied location, could not have much influence on the function of the heart. Often in patients dying of other diseases there have been found much graver lesions of the myocardium, which had not produced any symptom of asystole.

In order to explain the sudden asthenia of the heart in some mitral cases, with insignificant lesions of the myocardium, one may suppose that some of these small cicatrical foci invade the intrinsic motor centres of the heart with a sudden fatal result. But since the cases of sudden death are relatively infrequent, we must infer that the result is due either to a functional nervous disturbance, produced by the as yet unknown toxines of rheumatism, or to the extension and arrangement of the valvular changes themselves. Stein, having produced mitral insufficiency in some rabbits by wounding the valves, has proved that the insufficiency having reached a certain degree, can be no further compensated by the myocardium, and that the animal succumbs without presenting a trace of myocarditis.—Translated from *Giornale Internazionale delle Scienze Mediche,* by HARLEY SMITH.

Influenza.

In introducing a discussion on this subject at the Hunterian Society (*Brit. Med. Jour.,* May 6th) Clifford Allbutt said the disease was apparently a very old one. Every century since the twelfth has had a virulent outbreak, and in almost every century there has been a distinguished observer to record it for us. The epidemic of 1540 was very fatal. In the seventeenth century we have both Willis and Sydenham as observers; in the eighteenth, Fothergill and Heberden were the historians. Of the pestilence in 1733, Huxham has left a classical account, and in 1803, we have a description by probably the greatest physician who ever lived—Laënnec. In the last century, the epidemic of the forties was less severe than

that in the thirties, but the outbreak in 1889-90 was perhaps the most fatal in its effects.

The disease seems to be endemic in Northern Central Asia, just as cholera is endemic on the Ganges. The outpost from which the last epidemic is definitely traced to us is Bokhara, following from there the three chief trade routes westward. It was in St. Petersburg in November, 1889, and early in December it was in London and Paris. New York was reached eight or nine days later, but nearly two months elapsed before such remote districts as Hudson Bay were afflicted by the unwelcome visitant. The thing most worthy of note in this respect was that the larger towns, where only the express trains stop, were the first to suffer.

At this time, few physicians regarded the disease as contagious, thinking that it swept the folk down like an atmospheric wave. We know now, of course, that the terrible suddenness is accounted for by the very short incubation, apparently sometimes even less than twenty-four hours, nearly always less than forty-eight hours.

Allbutt thinks the disease is propagated by the sputum and spray of the respiratory tract, for he has never known a patient prove infectious who had no involvement of the air passages.

The public susceptibility in the 1890 epidemic was terrific. No one seemed immune. Young children, however, were not so often attacked, and when they did fall victims they suffered little from sequels, except in the ear. The immunity lasts nearly always six months, and more often a year.

The morbid anatomy has most to do with the lungs. The consolidation is never quite of the same appearance as that of the so-called croupous pneumonia; the surface is softer, more uniform and more glistening. If there is a lobar inflammation, it is almost always associated with lobular patches, and is seldom confined to one lung. It is a useful general rule to remember that the sputum of influenzal pneumonia is never rusty. Influenza, too, may cause cavities in the lungs.

Pleuritic effusions in this disease do badly; pericardial, worse; and empyemas seldom recover.

The heart in influenza is a little inexplicable. Although the histological changes amount to very little, yet the heart is in special peril, more, perhaps, than in any other infectious disease.

The characteristic symptoms are the extremely sudden on-

set and the great prostration. The convalescence is usually prolonged, but fortunately, when the malaise does leave, it departs almost as suddenly as it came.

To the three forms commonly distinguished, nervous, respiratory, and gastrointestinal, Allbutt would add a fourth, the continuous, which is not so uncommon. A point worthy of note in diagnosis is that the urine in influenza is not high-colored and is not lateritious.

After an attack, chloroform should never be given as an anesthetic, on account of the cardiac weakness.

A sequel not mentioned in books is the obstinate recurrence of profuse paroxysmal sweats for months after.

In treatment, the writer insists that the patient go to bed the moment he suspects influenza, stay there till he is over the acute phase, and live on a low nitrogen diet, such as milk and custard. F. A. C.

Perforation in Typhoid Fever.

Scott (*Univ. of Penn. Bull.*) has collected from the records of the Pennsylvania Hospital some valuable facts on this subject. One-fourth of all the deaths from typhoid are due to this cause, and probably one-quarter of these could have been saved by surgery. The perforation occurs between the second and fifth week, most often in the ileum. Generally it is small, and pin-point in size, due to gradual erosion of the ulcer.

The three most important symptoms in the diagnosis are pain, tenderness and rigidity, though all may be absent. Loss of liver dulness and shivering are very unreliable signs, neither does the blood-picture give any satisfactory information. The temperature chart shows, first, a sudden rise, and then a slow fall, but, as ordinarily kept in the hospital, this may not appear at all.

Urine After Anesthesia.

Goodurn (*Therap. Gazet.*) found albumin or casts, or both, in 40 per cent. of his patients after chloroform. With nitrous oxide, followed by ether, the percentage was 12, while ether alone gave 39. Sugar was found in about 1½ per cent. of cases, by all methods of administering the anesthetic, ether having a slilght proportion more. In all cases the albumin and casts disappeared in a few days (rarely more than ten), while sugar was absent after the first day.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, K. C. McILWRAITH, FRED. FENTON AND HELEN MacMURCHY.

Five notable papers on obstetrical subjects, comprising, indeed, a large part of the initial number, appear in the new *International Medical Magazine*, which appeared in Chicago on July 1st, under the title "Surgery, Gynecology and Obstetrics." The papers above referred to were all read before the American Gynecological Society at its annual meeting at Niagara Falls in May, 1905, and are as follows: "Appendicitis and Pregnancy," by J. Clarence Webster, Chicago; "Sudden Death during or immediately after the Termination of Pregnancy," Edward P. Davis, M.D., Philadelphia; "Pernicious Vomiting of Pregnancy," J. Whitridge Williams, M.D., Baltimore; "Clinical Types of Pregnancy Toxemia," J. Clifton Edgar, M.D., New York; "Appendicitis Complicating Pregnancy," Henry C. Coe, M.D., New York.

Dr. Davis' paper is exceedingly interesting, and in addition he gives a valuable bibliography and a tabulated history of 27 of the recorded cases. His conclusions, derived from his own experience and from a study of 193 papers on the subject, are these:—

1st. Sudden death may occur after abortion, labor or operation, from undemonstrable causes, autopsy finding no adequate reason for the accident.

2nd. Death may follow abortion, labor or operation from the rapid formation of a pulmonary embolus.

3rd. Patient may die suddenly after labor or operation at any period within a month from primary thrombosis and secondary embolism.

4th. Among the rare causes of sudden death in parturient women and operative cases must be mentioned sudden nervous reflex from vaginal manipulation, a patient dying immediately upon vaginal examination from no assignable cause.

Dr. Whitridge Williams speaks of Reflex, Neurotic and Toxemic Vomiting of Pregnancy, and has no hesitation in saying, from his own experience, in at least a certain proportion of the toxemic cases of vomiting of pregnancy, characteristic lesions may be found at autopsy, and are identical with those observed in acute yellow atrophy and icterus gravis.

Dr. J. Clifton Edgar describes, with cases, eight types of Pregnancy Toxemia.

Dr. Coe opens his paper with an expression of surprise that so little attention is bestowed on appendicitis complicating pregnancy, by recent writers on obstetrics. This is right enough—for example, in Jellett's new book, appendicitis is not even mentioned by name once. It does not appear even in the

index, nor anywhere in the text, so far as we can see. But if Dr. Coe will consult our own Canadian text book on obstetrics, (Wright), he cannot fail to be pleased with the way the subject is handled there.

Cæsarean section seems to be gaining ground again. Of 82 recent operations of this kind 20 were performed for eclampsia.

A recent case of furunculosis and abscess of the vulva in private practice in Toronto was apparently benefited by the administration of saccharomyces cerevisiæ in the form of brewers' yeast ℥i ter in die. This remedy is, of course, supposed to act by increasing leucocytosis.

The Induction of Labor.

Dr. Shiell, Assistant Master of Coombe Maternity Hospital, Dublin, in a paper on "The Induction of Labor," (*Brit. Med. Journal*), reports some cases and concludes as follows, respecting the methods adopted: I believe No. 10 bougie is the size most generally used by those who catheterize the uterus. I have tried larger sizes (12 and 14) where the os would admit them, and having once got them through the cirvex found they were more easily introduced and with less danger of rupturing the membranes. The larger sizes, as one would expect, appear also to irritate the uterus to a more marked degree. Whatever size is used, there is no need to injure the placenta in any way; as, if during introduction the placental site be reached, the bougie can be gently withdrawn and reinserted in another direction. Infection will not occur if proper antiseptic precautions be taken, but there is no operation in obstetrics which more severely tests the aseptic technique of the operator. The profession owe to Krause a debt of gratitude for his introuction of the bougie method of induction of labor. His method was not entirely successful in all my cases—even after repeating it a third time. We have, in digital separation of the membranes and tight plugging of the vagina, powerful and useful adjuncts. Injection of fluids into the uterine cavity is a method which seems to me to have but little to recommend it. With the sole object of stimulating uterine contraction I consider the branched dilator superior to the inelastic bag of Champetier de Ribes.

In no instance in which I have used it did the former fail to excite pains, but it has its indications and limits, too. I prefer, and consider it safer, not to use it unless the cervix is taken up largely, if not entirely, gaining this end by the other means which I have spoken of.

With regard to the instruments themselves, Bozzi's, the original, has been entirely superseded by Frommer's invention—the latter with its eight blades against Bozzi's four— and therefore during dilatation the os is more nearly a true circle,

consequently there is less fear of laceration. Seigneux's new instrument is a heavy, clumsy article; it also has but four blades, but they work at a considerable angle with the shaft; this angle at first sight appears to be—as the inventor claims for it—a distinct advantage, whereas in actual use I have found it most disappointing. Also in the particular Seigneux's instrument I have used—if not in others by the same maker—I have found the much greater rigidity of the antero-posterior blades, as compared with the lateral blades, a great drawback to its use, as the os during distension is thereby made diamond shape. Although not the newest invention, Frommer's instrument is, I believe, the best so far produced.

I have suggested and successfully used a little manœuvre with this instrument, by which the operator can estimate and control the amount of tension he is subjecting the cervix to. It is as follows: During dilatation up to say 3 cm. diameter, use the instrument, with the two anterior blades entirely removed, inserting the forefinger with nail towards the instrument into the place lately occupied by the blades removed. This finger will act as efficiently as would the blades if left *in situ*, with the added advantage that the operator can estimate to a nicety the tension of the cervix, and so cause dilatation to proceed quickly or slowly as the occasion demands. As dilatation progresses, the replacement of one of the blades removed will still allow sufficient room for the finger, until finally all the blades may be replaced, there being still room to admit the finger between any of the blades. I know of no other 8-bladed dilator on the market which will admit of one or more blades being removed or replaced without taking the whole instrument asunder.

Working upon past experience, when a case comes under my care which for one reason or another requires induction of labor, and great haste is not essential for the safety of the patient, I shall, if the os be small, dilate up to about No. 16 or 18 Kelly's dilators, inserting then into the uterus three of the largest bougies capable of passing through the os at the same time, and tightly plugging the vagina with sterilized gauze.

If this had not the desired effect in twenty-four hours I would repeat the treatment, and as soon as the cervix was partly taken up, if uterine contractions were not strong, I would use the Frommer to stimulate them, and allow Nature to complete delivery if no complication arose later. Should it happen—and so far I have been fortunate in its not occurring with me—that the membranes were accidentally ruptured during manipulation with the dilator, then, and not till then, would I be tempted use the hydrostatic dilators to assist me in the induction of labor.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF J. T. DUNCAN, M.B., M.D.,C.M.

Obligatory Teaching of Otology.

In the December *Annals of Otology, Rhinology and Laryngology* (1904), Professors Gradenigo and Politzer, of Vienna, strongly urge, in separate articles, the necessity for the obligatory teaching of otology in the medical schools.

Coffee Amblyopia.

It is a well-known fact that tobacco will cause varying degrees of amblyopia (loss of vision), but it is not so generally known that the use of coffee will do the same. An excellent article by A. E. Bulson (read at the meeting of the American Academy of Ophthalmology), in the *American Journal of Ophthalmology* on "Coffee Amblyopia," with the discussions in connection therewith, brings out this truth. He says that among the substances which may, through toxic action, produce amblyopic symptoms, unaccompanied by demonstrable retinal or optic nerve lesions, coffee may be included, though ophthalmological literature contains but few and brief references to the subject.

The manner in which the visual disturbance is produced is somewhat in doubt, though the theory advanced by Casey Woods that it is occasioned by a ptomain poisoning, generated as a direct result of the injurious influence of excessive quantities of coffee taken into the system, seems worthy of acceptance.

Two cases are detailed, in the first of which the vision was not half of normal (20.50) and no cause for this defect was ascertainable except that the patient was in the habit of taking large quantities of strong coffee. No lenses were of any benefit.

The patient was directed to totally abstain from the use of coffee, and was given pilocarpine sweats, and daily hypodermic injections of strychnine in increasing doses, beginning with 1.20 grain. At the end of one week the vision had increased to 20.30 plus, and the fields had decidedly widened. At this time the pilocarpine treatment was discontinued, but the strychnine was continued in doses of 1.10 grain in tablet form, after each meal. At the end of four weeks the fields of vision were approximately normal, and vision 20.20 each eye. The digestion and condition of the bowels had also improved. Patient then disappeared from observation and was not again seen until four weeks ago when she returned by request for

report as to condition. There has been no return of the trouble. The use of coffee has not been resumed.

A more definite proof of the fact that coffee may be responsible for visual disturbance was found in the history of the following case, in which a relapse occurred as a direct result of the resumption of the use of coffee: This patient, a lady, aged 41, had noticed impaired vision for several months, but became much worse during the later weeks. Patient reported that for two or three years she had been accustomed to drinking large quantities of strong coffee, which she took at varying intervals during the day from the coffee pot, which was constantly kept filled and on the stove. She said she depended upon coffee to to sustain her.

On examination both eyes were found fairly normal in appearance, with the exception that the pupil reacted a little slowly to light and accommodation. Vision 20.70 each eye, and not improved with lenses. Media clear. Fundus of each eye presented a slight pallor of the temporal half of the disc, and haziness of the edges, but otherwise normal.

The patient was directed to abstain from the use of coffee, and pirocarpine sweats and strychnine were prescribed. Under the treatment the vision steadily improved and the fields of vision widened until on August 13th, when the patient was discharged, the conditions were essentially normal.

The patient was not seen again until July 9th, 1904, when she returned complaining that her vision had within two or three weeks become affected, much as it was at the time of the first consultation over one year before. She reluctantly admitted that for two months she had been drinking coffee again.

The patient was again forbidden to use coffee and placed on the same treatment; but improvement was much slower than on the first occasion.

These two cases led the author of the paper to experiment upon himself, and he succeeded in inducing a mild coffee amblyopia which, however, soon disappeared when he ceased taking the coffee.

The Use of Quinine for Corneal Ulcers.

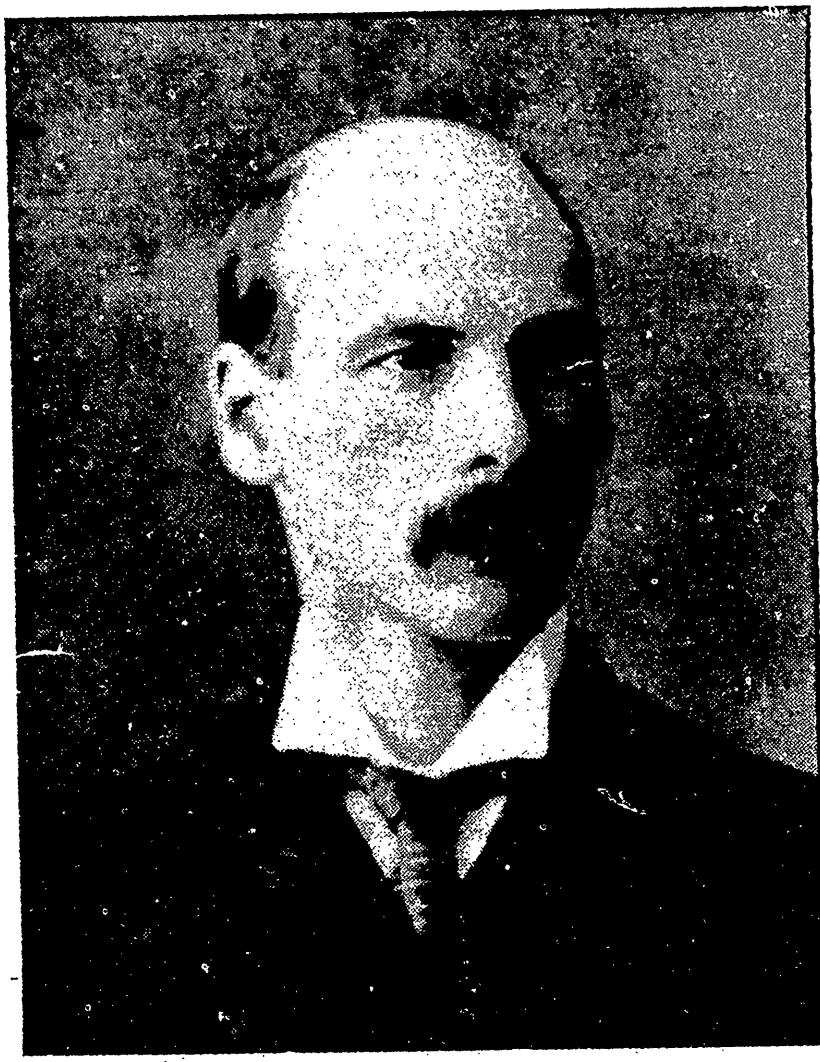
Mr. Arnold Lawson (*Journal of Ophthalmology*) read a paper on the treatment of corneal ulcers by quinine. He said that up to the present time the use of quinine in ophthalmology had been restricted to a very limited class of conjunctival and corneal affections, but his observations, which had extended over four years, showed that it was a very powerful curative agent in a large variety of corneal ulcers not amenable to ordinary routine treatment, to which much more drastic measures were commonly applied. The sulphate of quinine, dissolved

carefully in just sufficient sulphuric acid to hold the salt in solution, was preferable to either the hydrochloride or the acid sulphate, both of which were soluble in water; and it was recommended to be used in a one per cent. solution. The eyes should be soaked in the solution for five minutes four or five times a day, and in addition a thorough irrigation daily by an undine filled with the solution was advised. It caused very little discomfort, and patients used it readily, but stronger solutions gave rise to pain and had no advantage. When the treatment was going to be successful, improvement showed itself within a few days, and if no manifest benefit was obtained within a week it might be discontinued. The rapidity of healing under this treatment was at times remarkable, and the author had seen many formidable-looking ulcers heal by this treatment alone within a week. A list of several cases of corneal ulceration treated by this method within the last three years was appended to the paper.

The Rationale of Moist Cold Applications in Acute Contagious Ophthalmia.

Weeks writes on this subject in the *Journal of the American Medical Association* of December 10th, 1904. He says that in considering this matter it is well to bear in mind the thermal conditions under which the pneumococcus, Koch-Weeks' bacillus, gynococcus, and Klebs-Loeffler bacillus develop. The thermal range of development of the pneumococcus is between about 55° to 110° F.; of the Koch-Weeks' bacillus and the gynococcus 85° to 110° F.; of the Klebs-Loeffler bacillus about the same as the pneumococcus. The object of cold applications is really to inhibit the growth of the specific microörganism. This can be accomplished in the cases of conjunctivitis caused by microörganisms that do not develop below 88° F., as by cold applications the temperature of the conjunctiva may be reduced approximately to 92° F. In cases due to microörganisms that develop below 92° F., cold does little good.

Moist heat applied to the lids cannot be employed to raise the temperature of the conjunctiva above 110° F., seldom above 102° F., consequently it is of no value as an agent to inhibit the growth of the microörganisms concerned. It is only of value to assist in disposing of effete material, plastic or otherwise, which may be present in the tissues by rendering the flow of blood and lymph more free.



DR. J. N. E. BROWN

Superintendent Toronto General Hospital

Editorials.

THE BRITISH MEDICAL ASSOCIATION.

The profession of Canada are pleased to learn that the next meeting of this great medical society will be held in this country. The Council of the Association, in a response to an invitation from Canada, has decided that Toronto will be the place of meeting in 1906.

At the meeting of the Association in Nottingham, 1892, Sir William Highston, of Montreal, said "he trusted that at no very distant date the British Medical Association would visit Canada. They would there find a heterogenous population—French, English, Scotch and Irish—but amongst them, they would find, too, an attachment to Her Most Gracious Majesty Queen Victoria, an intense love of British institutions, and a very deep feeling of loyalty to the Crown; and if the Association would do them the honor suggested he could assure for the profession a most cordial and hearty welcome."

Again, in 1896, Doctors Roddick, Armstrong and Adami of Montreal, and Doctors MacCallum, Cameron, Peters and Doolittle, of Toronto, speaking on behalf of Canada, invited the Society to hold the meeting of 1897 in Montreal. This invitation was cordially accepted, and Dr. Roddick was elected President. We shall have something to say about this magnificent meeting in a future issue.

In the meantime it will be interesting to consider certain matters in connection with the history of the Association, although in so doing we shall be to a large extent repeating our words of former years. The Association is now seventy-three years old. Its growth in earlier years was slow, but it has grown during the last thirty-five years with marvellous rapidity. Dr. White, of Nottingham, stated in his Presidential address, 1892, that he was Secretary of the Association in 1857, when there was an attendance of between eighty and ninety at the annual meeting. In its earlier days it was called the Provincial Medical and Surgical Association. In 1856 the meeting was held in Edinburgh, in 1862 in London,

and in 1867 in Dublin. During the meeting of 1857 in Nottingham all the sessions were held in one small room. During the Dublin meeting it was found necessary to divide it into sections, as the work had increased to such an extent. From year to year since that time the sections have increased in number, and in the amount and importance of their work. Dr. Roddick, in his Presidential address, also referred to interesting facts in connection with the growth of the Association and its branches. In 1837, five years after it was organized, there were three branches, namely, the East Anglican, the Bath and Bristol, and the Lancashire and Cheshire. In 1878, there were thirty, one of which was in Jamaica—the first colonial branch formed. There were in 1897 sixty-five branches, with a total membership of nearly 17,000. Of the branches, twenty-seven are Indian and Colonial. The first Canadian branch was formed in Halifax in 1887. Branches were formed in British Columbia, Manitoba, Toronto and Montreal in 1891, and in Ottawa and Quebec in 1897, making altogether seventeen Canadian branches at that time.

We believe that we are voicing the feeling of the great majority of physicians of Canada in expressing the hope that Dr. R. A. Reeve, Dean of the Medical Faculty of the University of Toronto, will be elected President for the coming year.

NEW SUPERINTENDENT OF THE TORONTO GENERAL HOSPITAL.

The appointment of Dr. John N. E. Brown as Superintendent of the Toronto Hospital, has given general satisfaction to the profession of Toronto.

He was graduated from the University of Toronto in 1893. After practising in Toronto for a few years he went to the Yukon Territory shortly after the great gold discovery there. He became Medical Health Officer of Dawson City, and showed great executive ability while filling that somewhat difficult position. He was also for a time Territorial Secretary of the Yukon. Last winter he returned to this part of Canada and

remained for a short time in Toronto. He then went to Johns Hopkins Hospital and University, Baltimore, where he spent some months in post-graduate work.

While in Dawson he married "Faith Fenton," the well-known newspaper correspondent. Among many memories of "Faith Fenton," the writer will never forget some of her comments respecting the meeting of the British Association for the Advancement of Science, held in Toronto in 1897. For instance she told us: "It's a pretty way they have of saying farewell, gathering together for an hour as they did yesterday afternoon to offer the formal thanks and good-byes, and it was equally a courteous way and an evidence of the fine English breeding of our guests, that the most famous amongst them was careful to be present.

"To the little upper room came Lord Kelvin, Lord Lister, Sir John Evans, Sir William Turner, Sir George Robertson, and all the men of magnificent minds, whose faces have grown so familiar to us during the past week. They were not too weary, nor yet too impatient to say 'Thank you,' and 'Good-bye,' and to say them graciously and simply as a child.

"We looked at each one of them in turn, and our gaze lingered longest and last on the dearest old face of all—a face whose loveableness we shall always remember—that of Lord Lister."

MEDICAL ITEMS.

The recent meeting of the American Medical Association, held at Portland, Oregon, July 11th to 14th, was probably more successful than was expected when it was decided last year to hold the meeting for 1905 in the Far West. Although the attendance was not so large as that of the previous year, it was by no means small, as there were registered 1,714. Our genial friend, Dr. Lewis S. McMurtry, of Louisville, Ky., as President, graced the Chair with his usual courtesy and ability. The presidential address was mainly a review of the origin and progress of the association. The next meeting of the association will be held at Boston, Mass., under the presidency of Dr. Wm. J. Mayo, of Rochester, Minnesota.

The Buffalo *Medical Journal* enters upon the 61st year of its publication with the August issue. We tender our congratulations to the editor, Dr. Wm. Warren Potter.

The American Association of Obstetrics and Gynecology will hold its eighteenth annual meeting at the Hotel Astor, New York City, September 19th, 20th, and 21st. The chairman of the Local Committee of Arrangements, Dr. Robert T. Morris, 616 Madison Avenue, will gladly furnish information to members and guests upon application. Dr. Howard Longyear, of Detroit, Mich., is President, and Dr. Wm. Warren Potter, of Buffalo, N.Y., is Secretary.

Graduating Class, 1905, Manitoba Medical College.

William Wilson Amos, Robert Naismyth Burns, B.A., Frederick Todd Cadham, B.A., William Andrew Clark, Thos. Andrew Cohoe, George Hector Craig, B.A., Robert Edward Davis, James Duxbury, Albert Ernest Finley, William Jesse Grant, Benjamin Arthur Hopkins, Marsden Frank Ross Irwin, Robert Duncan Kippen, Arnot Leishman, David Park Miller, B.A., Harry Morton Murdoff, Harold Wigmore McGill, Chas. James McKinnon, William John Mactavish, William C. Nickle, Richard R. Proctor, George Walter Rogers, Albert Henry Rondeau, Herbert Samuel Sharpe, Harry Blackett Stacpoole, David Chester Thompson, Wilfrid Tucker, John Alexander Valens, Frederick Chas. Walton, George Albert Woodruff, Joseph Theodore Wright.

A school for the study of anatomy is to be established by the faculty of the Post-Graduate Medical School in New York City. We are pleased to announce to his many friends in Canada that Dr. Neil Macphatter will have charge of the department. He received his education in Trinity Medical College, Toronto, and after graduating, proceeded to Edinburgh, where he studied for a number of years, and while there he studied anatomy under the instruction of Sir William Turner. He also spent some time in post-graduate work at Glasgow, London and Birmingham, where he acted as an assistant for some time to Mr. Lawson Tait. He then came to America and settled in Denver, Colorado, practising there until 1898, when he returned to Edinburgh, and became F.R.C.S. Returning to America soon after this he settled in New York City, where he has for years been closely associated with the Post-Graduate Medical School.

TORONTO GENERAL HOSPITAL.

The following rules governing the admission of patients have been adopted by the Board of Trustees:

1. No professional fee, directly or indirectly, shall be charged by any member of the staff for patients who pay $3.50 per week, whether the payment is made on their behalf by the city, by some friend or society, or by themselves. All patients of every sort paying $3.50 per week shall be attended absolutely without professional fee, directly or indirectly.

2. It is desired that there shall be co-operation between the hospital authorities and the attending physicians and surgeons for the purpose of eliminating as far as possible from the $3.50 per week class those who are able to pay for a semi-private ward.

3. All patients admitted on city orders shall be placed in rotation under the seniors in medicine, surgery and other departments, and under the assistants during their term of service.

4. Patients for whom $3.50 per week is paid, either by themselves or by their friends, shall also be placed in rotation under the members of the staff as in the foregoing. If, however, a member of the staff sends to the hospital patients who are under his care in his private practice, with the request that they be allotted to him, or if patients are sent by a physician or surgeon who is not a member of the staff, requesting that they be placed under the care of some certain member of the staff, the admitting officer shall follow such instructions, with the limitations provided in the following paragraphs.

5. All purely gynecological cases paying $3.50 per week, whether city order or cases paid for by the patients or their friends, shall be placed under the charge of the gynecologists or their assistants. Surgeons and assistant surgeons on the staff may attend their special cases, paying $3.50 per week, except gynecological, in the pavilion, provided the wards of the pavilion are not required for gynecological cases.

6. Members of the medical staff may treat their special patients paying $3.50 per week, only when they are medical cases. Surgical members of the staff may treat their special patients paying $3.50 per week only when they are surgical cases.

Members of the pathological staff may treat their special patients paying $3.50 per week only when they are medical cases. Obstetricians and gynecologists shall not treat their

special patients paying $3.50 per week in either the medical or surgical wards of the hospital.

A physician of the Out-patient Department, after five years' service, may have one special case paying $3.50 per week in a medical ward, when such case is sent into the hospital by himself, provided that under no circumstances such patient comes through the Out-patient Department. A surgeon of the Out-patient Department, after five years' service, may have one special case paying $3.50 per week in a surgical ward, when such case is sent into the hospital by himself, provided that under no circumstances such patient comes through the Out-patient Department.

7. Cases treated in the Emergency Hospital by the assistant surgeons or physicians shall be treated by them when removed to the General Hospital.

8. Surgeons who are not members of the staff, who desire to perform operations in the theatre, may do so on private and semi-private patients only, with the approval of a member of the surgical staff, provided that such member be present at the operation.

9. All autopsies shall be performed by the pathologists.

TEXT-BOOK OF OBSTETRICS.

The *Montreal Medical Journal*, August, speaks as follows respecting Dr. Adam Wright's Text-Book of Obstetrics:

"This book is full of the author's personality, and calls to mind the style of Denman's Obstetrics, first published in 1815, and for many years a most popular work both in England and America.

"Dr. Wright has produced an interesting book upon the *art* of obstetrics as distinguished from its science, though in the few places where reference is made to science no particular fault is to be found. On the whole, in this scientific age, such a work comes as a surprise, though perhaps it loses none of its charm by this deficit to many readers.

"The reviewer has perused its pages with interest and not without profit, for it impresses one with the sincerity and earnestness of its author, who is evidently well read and thoughtful, and a good type of the careful, competent practitioner.

"The work opens with a quotation from Longfellow's Hyperion, dealing with the fatuity of speculative know-

ledge, which, taken along with the following sentence on page 428, fully expresses the author's central idea in producing this work: 'It appears to me that there is at the present time considerable danger that we are cultivating science at the expense of art in our profession.'

"Hence, one is not surprised to find scant reference to the etiology of many conditions of the highest interest to the scientific obstetrician. For example, the part dealing with embryology is weak, and the author's remarks in reference to the embedding of the ovum and development of the placenta is antiquated and incorrect.

"Having pointed out these few defects, it is a pleasure to dwell on the many good qualities of this latest contribution to the literature of obstetrics.

"Of special interest on account of clearness, accuracy and often original presentation are the chapters on mechanism, the third stake of labor, the treatment of vomiting of pregnancy, the relation of appendicitis to pregnancy, and also, the most valuable of all, the chapter on tuberculosis.

"In many instances the author illustrates his point by reference to cases he has encountered, and gives careful and interesting reports when so doing.

"The author has very strong viws on the subject of milk diet, whether in typhoid or in the toxemia of pregnancy. He hesitates about denouncing it completely, but concedes its value in the case of young infants and calves, though he does state frankly that in his opinion it is unsuitable for adult human beings.

"The general arrangement of the work is about as usual, being divided into parts, physiological and pathological. The style, as has been said, is good, and the book will be found extremely interesting reading by the physician, and will no doubt be a very popular work among students.

"The illustrations have been well done, and not, as in many recent books, overdone. The publisher's work leaves little to be desired, and is quite up to the usual good style of the Appleton publication."

The Northern Alberta Medical Association, which holds monthly meetings at Edmonton, recently elected the following officers: Honorary President, Dr. McInnes, Edmonton; President, Dr. Harrison, Edmonton; Vice-President, Dr. McIntyre, Strathcona; Sec.-Treasurer, Dr. Whitelaw, Edmonton; Committee, Drs. Wilson, Smith and Clendenan, Edmonton.

Personals.

Dr. D. Evans, Tor. '03, is practising at Lisle, Ont.

Dr. Palmer spent the month of July on the Georgian Bay.

Dr. Arthur B. Wright returned to Toronto August 1st.

Dr. B. Edmondson, Tor. '03, is practising at Castleton, Ont.

Dr. Bruce Riordan, of Toronto, has removed to 73 Simcoe Street.

Dr. Hutchison, Tor. '90, has removed from Ingersoll to Port Rowan.

Dr. R. J. Dwyer, of Toronto, went to the Temiskaming District July 15th.

Dr. F. S. Routhwaite has settled in Cookstown in the place of Dr. MacKay.

Dr. W. B. Thistle, of Toronto, spent the latter half of July at Bic, Quebec.

Dr. J. L. Anderson, formerly of Cannington, has removed to Waterford, Ont.

Dr. I. A. Tripp, Tor. '95, has removed from Simcoe, Ont., to Nottingham, Ohio.

Dr. Dougald MacBane, Tor. '02, has removed from St. Thomas to Winnipeg.

Mrs. Mackinnon, wife of Dr. Angus Mackinnon, of Guelph, Ont., died July 29th.

Dr. W. P. Caven, of Toronto, spent the month of August on his farm at St. Mary's.

Dr. T. W. Duncombe, Tor. '82, formerly of St. Thomas, is now practising at Waterford.

Dr. J. R. O'Brien, of Ottawa, has gone abroad for post-graduate work in London and Paris.

Dr. A. H. Adams, Tor. '04, is resident physician in the Free Hospital for Consumptives at Weston.

Dr. Wm. J. Clark, Tor. '98, of Toronto, has removed from 475 Dovercourt Road to 867 College Street.

Dr. Brefney O'Reilly, who is now in England, expected to sail from London for South Africa about August 20th.

Hon. Dr. R. A. Pyne, who went to England about the middle of July, is expected home early in September.

Dr. Price-Brown left early in August for a trip to Grosse Isle, and expects to return to Toronto September 1st.

Drs. Black, Strathy and Spohn have been appointed House Surgeons to the Hospital for Sick Children, Toronto.

Dr. Uzziel Ogden, of Toronto, who had a slight stroke of paralysis in the latter part of June, is slowly recovering.

Dr. L. E. Rice, Tor. '90, who practised for some years in Dundee, is now engaged in post-graduate work in Europe.

Dr. J. J. Matheson returned to Toronto after having spent a year in Edinburgh and Dublin engaged in post-graduate work.

Mr. John Ross Robertson has given $75,000 for a Nurses' Home in connection with the Hospital for Sick Children, Toronto.

Dr. Murray McFarlane left Toronto July 15th, for a six weeks' trip through California and Oregon, returning home by way of Banff.

Drs. John I. Davison, George McDonagh, George Bingham, Milton Cotton, Geoffrey Boyd and Joseph Graham are holidaying on the Georgian Bay.

Dr. Charles O'Reilly, of Toronto, when last heard from, was at London, having returned from the meeting of the British Medical Association at Leicester.

Dr. H. P. H. Galloway, who has been associated with Dr. B. E. Mackenzie in orthopedic surgery for some years, left for Winnipeg, Man., July 29th.

We are pleased to be able to report that Dr. A. H. Perfect, of Toronto Junction, who was very seriously ill for some time, is now recovered and has resumed practice.

Dr. Alex. MacKay, Tor. '95, after practising in Cookstown for some years, went to New York for post-graduate work, and is now going to the North-West, where he expects to practise.

Dr. E. K. Cullen, Tor. '03, recently a surgeon on the interne staff of the Toronto General Hospital, has been appointed Fellow in Pathology at the Johns Hopkins University, Baltimore.

Dr. Harold C. Parsons (B.A. '91; M.D. '92, Trin.), qualified for membership of the Royal College of Physicians, of London, July, 1905, by examination. He became a licentiate in 1897.

The following have been appointed on the intern staff of the Toronto General Hospital: Doctors J. F. Brodie, Alfred McNally, W. A. Burr, T. A. Davies, A. Kinghorn, E. C. Burson and A. G. McPhedran.

Dr. George A. Peters paid a flying visit to his home in Toronto, August 9th, with health much improved. He looks better and younger than he did five years ago. He will soon return to work, and we rejoice to say that we think he will be quite *fit* for it.

The doctors of the Medical Class of 1890 of Toronto University, who attended their reunion in Toronto, June 10th, were: Doctors L. F. Barker, T. S. Cullen, E. Herbert Adams, A. W. Maybury, R. T. Schiell, C. L. Starr, W. E. Bryans and W. F. Bond. The next reunion will be held at Baltimore.

The following have been appointed coroners: Dr. W. A. Wardell, of Hamilton, for the County of Wentworth; Dr. W. A. Chapman, of Rat Portage, for the Rainy River District; Dr. W. H. Woods, of Caradoc, for the County of Middlesex; Dr. A. R. Farrell, of Tweed, for the County of Hastings; Dr. George P. Sylvester, of Toronto, for Toronto; Dr. John Noble, of Toronto, for Toronto; Dr. Wm. J. Anderson, of Jasper, for Leeds and Grenville; Dr. William Wallace Birdsall, Fort William, for Thunder Bay.

Marriages.

Dr. Alex. D. Stewart, of Fort William, to Miss Pettit, June 22nd.

Dr. Frank C. Neal, of Peterborough, to Miss Reycraft, June 28th.

Dr. J. H. Elliott, of Gravenhurst, to Miss Mabel Tait, June 14th.

Dr. R. R. Wallace, of Hamilton, to Miss Jean Lesslie, June 1st.

Dr. J. M. Jory, of Bloomfield, to Miss Alice Docker, June 7th.

Dr. D. W. McPherson, of Toronto, to Miss Margaret Sloane, June 28th.

Dr. W. Ford McLoghlin, of Hamilton, to Miss Downey, July 14th.

Dr. E. C. Ashtown, of Brantford, to Miss Helen M. Weir, June 14th.

Dr. Jno. F. Armstrong, of Oil Springs, to Miss Murdoch, June 15th.

Obituary.

PROFESSOR HERMANN NOTHNAGEL.

Professor Nothnagel, who succeeded Bamberger as Professor of Medicine, Vienna University, died at his home in Vienna, July 7th, 1905, aged 63, of arterio sclerosis. He was probably one of the greatest teachers of clinical medicine, but was better known in America as a distinguished author. His latest great work, "Nothnagel's Encyclopedia of Practical Medicine," published in America by Messrs. Saunders & Company, is now going through the press.

PROFESSOR MIKULICZ.

Professor Mikulicz, of Breslau, died June 14th, 1905, aged 55, of carcinoma of the stomach. We learn from the pen of Professor J. Schwalde, as quoted in the St. Louis *Medical Review*, that the circumstances surrounding his illness and death were sadly tragic. Indefinite gastric symptoms appeared last summer, and three weeks before Christmas Mikulicz suddenly discovered a tumor, which he himself diagnosed as a non-operable cancer of the stomach. Partly because he considered his case hopeless, and partly because he did not want to put a damper on the Christmas festivities, he said nothing of his condition to anyone. Professor V. Eiselsberg, of Vienna, made an exploratory incision January 7th, and confirmed the diagnosis. After recovering from this operation he entered actively into work again, and gave his usual course for army surgeons. About the middle of April an alarming gastric hemorrhage occurred, followed by rapid decline. During his last few weeks he suffered greatly. The St. Louis *Medical Review* comments as follows: "No one knew better than Mikulicz, a master in gastric surgery, the dread march of the disease that had attacked him. He himself established the diagnosis and then submitted to the only hope of cure. The hope was an illusionary one. He then disposed himself to meet his fate in a manner best calculated to spare his friends and dear ones unnecessary grief and pain." Mikulicz, next to Kocher, was probably the best known surgeon in Europe.

A. PALMER DUDLEY, M.D.

Dr. Palmer Dudley, a distinguished gynecologist of New York, died at Liverpool, England, July 15th, 1905, of pulmonary tuberculosis, aged 52. We are told by the Buffalo *Medical Journal* that Dr. Dudley attended the meeting of the Gynecological Society at Niagara Falls in May last looking the picture of health. He was on his way to St. Petersburg to attend the International Congress of Gynecology and Obstetrics as a delegate from the former society.

W. W. MEACHAM, M.D.

Dr. Meacham, of Warsaw, died at his residence, after a short illness, from apendicitis, aged sixty-four. He lived and practised for many years in Napanee, and represented his county for several years in the Ontario Legislature. In politics he was a Conservatice, and in medical politics was inclined to support the "Defence Association."

FRED JAMES GANT, F.R.C.S.

Mr. Gant, well-known in former years as a great author and teacher of surgery, died in London, June 6th, aged 80. He went to the Crimea in 1854 as civil surgeon of the British military hospitals of the Crimea and Scutari. He was for more than fifty years connected with the Free Hospital in London.

S. R. VON BASCH, M.D.

Professor Von Basch, the well-known Professor of Explanatory Pathology in the University of Vienna, died April 5th, aged 68. He was at one time well-known on this continent as a physician to the unfortunate Kaiser Maximillian, who was shot in Mexico in 1867. In the latter part of the same year he returned to Europe with the body of the dead Emperor. He is said by those who knew him to have been a most able, energetic and lovable man.

Book Reviews.

The American Year-Book of Medicine and Surgery for 1905. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of GEORGE M. GOULD, A.M., M.D. In two volumes. Volume I, including *General Medicine*; Volume II, *General Surgery*. Two octavos of about 700 pages each, fully illustrated. Philadelphia and London: W. B. Saunders & Co., 1905. Per volume: Cloth, $3.00 net; Half Morocco, $3.75 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

The 1905 issue of Saunders' American Year-Book of Medicine and Surgery fully maintains the pre-eminent position which it long ago established. Dr. Gould, the editor, has associated with him a staff of men of the greatest ability, shown in the conscientious thoroughness with which each article is prepared. Here the practitioner has placed before him, and at a very moderate price, the cream of all the medical literature published during the past year, and in such a form that it is readily digestible. As a compendium of medical and surgical progress, it will prove invaluable; for the practitioner anxious to keep abreast of the advances in the subjects treated, it will be of the utmost assistance. The text, as usual, contains a number of illustrations of practical value; there are also nine insert plates of much excellence.

Atlas and Text-Book of Topographic and Applied Anatomy. By PROF. DR. O. SCHULTZE, of Wurzburg. Edited, with additions, by GEORGE D. STEWART, M.D., Professor of Anatomy and Clinical Surgery, University and Bellevue Hospital Medical College, New York. Large quarto volume of 187 pages, containing 25 figures on 22 colored lithographic plates, and 89 text cuts, 60 in colors. Philadelphia and London: W. B. Saunders & Company, 1905. Cloth, $5.50 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

In the preparation of this book Professor Schultze had in mind the need of a work that would combine the features of a text-book with the educational advantages of an atlas. He has produced a work of great merit, and not alone the anatomist but more particularly the general practitioner will find it of constant value. Professor Schultze has presented his own methods for the study of anatomy—methods proved to be correct and practical by many years of clinical study. Throughout the work the value of the knowledge of topographic anatomy in bedside diagnosis is emphasized. The many colored lithographic plates and the numerous text-cuts, sixty of which are in colors, are of exceptional excellence. Indeed, both for

accurateness of detail and artistic beauty we have never seen their equal. The greater portion of the dissections from which these illustrations have been made are from the author's own preparations. Dr. George D. Stewart in editing the work has added many valuable notes.

Essentials of the Practice of Medicine. Prepared especially for students of medicine. By William R. Williams, M.D., formerly Instructor in Medicine and Lecturer in Hygiene, Cornell University; Tutor in Therapeutics, Columbia University (College of Physicians and Surgeons), New York. 12mo of 461 pages. Philadelphia and London: W. B. Saunders & Company, 1905. Double number. Cloth, $1.75 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

In this new volume in Saunders' Question Compend Series the student is provided with a book of the utmost practical value. Throughout the work special stress has been laid on the more common aspects of the various diseases, emphasizing the contrasting points in similar conditions, so as to render differential diagnosis as easy as possible. Symptomatology and treatment have likewise been adequately, although concisely, considered. In fact, this little work is the best we have seen, and for students preparing for examination it will be a most welcome and trusty aid. It contains a vast amount of practical, essential information in the least possible space.

Malaria, Influenza and Dengue. By Dr. J. Mannaberg, of Vienna, and Dr. O. Leichtenstern, of Cologne. Entire volume edited, with additions, by Ronald Ross, F.R.C.S., F.R.S., Professor of Tropical Medicine, University of Liverpool; J. W. W. Stephens, M.D., D.P.H., Walter Myers Lecturer in Tropical Medicine, University of Liverpool; and Albert S. Grunbaum, F.R.C.P., Professor of Experimental Medicine, University of Liverpool. Octavo volume of 769 pages, fully illustrated, including eight full-page plates. Philadelphia and London: W. B. Saunders & Company, 1905. Cloth, $5.00 net; Half Morocco, $6.00 net. Canadian Agents: J. A. Carveth, & Co., Limited, 434 Yonge Street, Toronto.

This new volume in Saunders' American Edition of Nothnagel's Practise represents the latest word on the subjects of which it treats. And more than that, it is the undisputed authority on these subjects. For this American edition Dr. Ross has made many additions to the article on Malaria, so many discoveries having been made since the appearance of the original article. The articles on the Mosquito and its various relations to Malaria come from the authoritative pen of Dr. J. W. W. Stephens, of Liverpool. The Influenza and Dengue sections are equally well written. The untiring labor of the editors in preparing this work for the English-speaking market is evidenced on almost every page by the lengthy and valuable editorial interpolations. This is the tenth volume in

the series, and the eleventh one (that dealing with Diseases of the Kidneys and Spleen and with Hemorrhagic Diseases) is promised very soon. When the series is completed it will undoubtedly form the best practise of medicine in existence.

A Reference Handbook for Nurses. By AMANDA K. BECK, of Chicago. 32mo volume of 150 pages. Philadelphia and London: W. B. SAUNDERS & COMPANY, 1905. Bound in flexible morocco, $1.25 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

This little book contains information upon every question that comes to a nurse in her daily work, and embraces all the information that she requires to carry out any directions given by the physician; it includes also instructions for all emergencies that may arise before or between visits of the physician. It is of immense value to student nurses, because it contains all the material they are expected to commit to memory from notes. Physicians, too, will find the book of value, because it contains exact details as to solutions, foods, dosage, poultices, applications, etc. The mechanical get-up of the book is both convenient and attractive. It is of a size to fit the pocket and is neatly bound in flexible morocco.

The Pharmacopeia of the United States of America. Eighth Decennial Revision. By authority o the United States Pharmacopeial Convention, held at Washington, A.D., 1900. Revised by the Committee of Revision and published by the Board of Trustees. Official from September 1st, 1905. Philadelphia Agents: P. Blakiston's Son and Company; Sub-agents, New York: E. R. Pelton, 10 East Sixteenth Street; Chicago: The E. H. Colgrove Company, 65 Randolph Street; St. Louis: C. V. Mosby, 2313 Washington Avenue; San Francisco: Payot, Upham & Co., 100 Battery Street. Price, $2.50, in cloth.

The eighth revision of this weighty work has been distributed to the journals for review. It will not, however, become official until September 1st. We notice it gives average doses in place of maximum and minimum doses, and these are indicated in metrical terms with their equivalents in apothecaries' measure.

Attention is especially called to the changes of strength in the tinctures of aconite, veratum and strophanthus. The aconite has been introduced from 35 per cent. to 10 per cent., the veratum from 40 per cent. to 10 per cent., while the strophanthus has been increased from 5 per cent. to 10 per cent. These changes have been made to the standards adopted at the International Congress, the object being to make uniform the strength of patent remedies in all parts of the world.

The historical introduction which is given is one of unusual interest, commencing with the year of 1817, when the

project was introduced of launching the International American Pharmacopeia. The first pharmacopeia published was a small one for the use of the Military Hospital of the United States Army; the second one appeared in 1781, on the title page of which Dr. Wm. Brown is mentioned as author; the fifth revision was published in 1873; the sixth in 1882, and the seventh in 1893. This, the eighth edition, was published under the United States International Pharmacopeial Convention, held at Washington in 1890. revised and made official from September 1st, 1905.

We are indebted to the J. B. Lippincott Company for this official copy, No. "A," 2837.

It would be well for all practitioners in Canada to possess themselves of a copy, as it will be found equally as useful to them as the British Pharmacopeia, the last edition of which was issued in 1898.

Progressive Medicine. Vol. II, June, 1905. A Quarterly Digest of Advances, Discoveries and improvements in Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 346 pages, 48 illustrations. Per annum, in four cloth bound volumes, $9.00; in paper binding, $6.00; carriage paid to any address. Lea Brothers & Co., Publishers, Philadelphia and New York.

This volume contains articles on hernia, by Coley; surgery of abdomen, by Foote; gynecology, by J. G. Clark; diseases of blood and spleen, by Stengel, and ophthalmology, by Jackson. It is in every way equal to those which have preceded it.

A Text-Book on the Practise of Gynecology. For Practitioners and Students. By W. EASTERLY ASHTON, M.D., LL.D., Fellow of the American Gynecologic Society; Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Octavo volume of 1079 pages, containing 1046 new and entirely original line drawings. Philadelphia and London: W. B. Saunders & Company, 1905. Cloth, $6.50 net; half morocco, $7.50 net, Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street. Toronto.

Dr. Ashton's Practice of Gynecology is a new departure in medical text-book making. The author takes up each procedure step by step, the student being led from one step to another just as in studying any non-medical subject. Dr. Ashton in every instance tells what should be done, and how to do it. All the methods and details of technique described have been thoroughly tested by the author himself, so as to assure their value and accuracy. A very commendable feature is the departure from the old routine method of devoting a general chapter to physical examination. In place of this the author presents the examination of each organ separately before de-

scribing its disease, thus greatly aiding the student in familiarizing himself with the technique. A distinctly original feature consists in the line drawings made especially for this work under the author's personal supervision from actual apparatus, living models, dissections on the cadaver, and from the operative technics of other authors. There are ten hundred and forty-six of these illustrations, showing the procedures and operations without obscuring their purpose by unnecessary anatomical surroundings. Definite and precise instructions are given regarding the preservation of specimens of morbid tissues and secretions, and their delivery in good condition to the pathologist. The fore part of the work, dealing with antiseptic technique, shows great care in its preparataion, Dr. Ashton wisely describing only those methods which he employs in his own practice. Very special attention has been given to the consideration of visceral injuries, and we know of no other work on gynecology or general surgery discussing this important subject with the same amount of detail. This is decidedly a work for the general practitioner as well as for the student; and a good one.

Modern Clinical Medicine: Infectious Diseases. Edited by J. C. WILSON, A.M., M.D., Professor of Medicine in the Jefferson Medical College; Physician-in-chief to the German Hospital, Philadelphia; Physician to the Jefferson and Pennsylvania Hospitals, etc. An authorized translation from the *Die Deutsche Klinik* under the general editorial supervision of JULIUS L. SALINGER, M.D. With two colored plates and sixty illustrations in the text. New York and London: D. Appleton & Company.

The nineteenth century has been famous for the advance made in clinical medicine, and it is to the able professors of the great schools of medicine in Vienna and Berlin that we owe this advance. They gained a supremacy which they worthily maintain at the present time, and were the ones who first used and developed the term of "Internal Medicine."

This present volume is made up largely of material from the *Die Deutsche Klinik* which has been written by the foremost clinicians of Austria and Germany, men who are well-known authorities on the subjects on which they write. Among the contributions are to be found well-known specialists, such as, Klemperr, of Berlin; Liebermeister, of Tubingen; Brion, of Strassburg; Lichtheim, of Konigsberg; Ortner, of Vienna; Huebner, of Berlin; Baumler, of Freiburg; Echorst, of Berlin; others may also be mentioned—Ewald, Leube, Baginsky, Nothnagel, Curschmann, Ehrlich, Lœffler, Sanator and others.

The translation of this work is marvellously well done and those who are fortunate in possessing a copy will find not only the literary embodiment of the most advanced science, but it is

adapted in a surprising degree to the every-day needs of the practitioner, the teacher and the student. Great and unlooked for advances have been made in connection with research concerning infectious diseases, and this volume brings it all up to the standard of present knowledge.

"Infectious Diseases" is a volume of 925 pages, including the index, which is unusually complete. The work contains many illustrations in black and white and two colored plates. The entire field of infectious diseases is covered fully and practically. There is nothing in this work that is unnecessary, but everything which is essential. There are chapters on Typhoid and Typhus Fevers, Diphtheria, Measles, Scarlet Fever, Small-pox, Cholera, Erysipelas, etc.

The price in cloth of "Infectious Diseases" is $6.00. The volume in "Modern Clinical Medicine" will be sold separately. The second volume in this series, which is now in preparation, is "Constitutional Diseases and Diseases of the Blood"; the third volume in the series will be "Diseases of the Digestive Tract."

Atlas and Epitome of Operative Gynecology. By Dr. O. Schaeffer, of Heidelberg. Edited, with additions, by J. Clarence Webster, M.D (Edin.), F.R.C.P.E., Professor of Obstetrics and Gynecology in Rush Medical College, in affiliation with the University of Chicago. With 42 lithographic plates in colors, many text cuts, a number in colors, and 138 pages of text. Cloth, $3.00 net. Philadelphia, New York, London: W. B. Saunders & Company, 1904.

This new addition to Saunders' admirable series of Hand-Atlases is excellent. It is unfortunate that medical students each year know less about gynecologic operations than about almost any other department of operative surgery. This atlas, therefore, is opportune, and the excellence of the lithographic plates and the many other illustrations render it of the greatest value in obtaining a sound and practical knowledge of operative gynecology. Indeed, the artist, the author, and the lithographer have evidently expended much patient endeavor in the preparation of the water-colors and drawings. They are based on hundreds of photographs taken from nature and reproduce faithfully and instructively the various situations which they intend to illustrate. The text closely follows the illustrations, and we have found it fully as accurate. We consider it of great value to the up-to-date practitioner and surgeon, as well as to the specialist.

Selections.

Inoperable Carcinoma and Roentgen Rays.

Freund exhibited a patient to the "Gesellschaft," who came to him about the beginning of December with a carcinomatous tumor of the breast, too far advanced for operative purposes, on which he applied the Roentgen Rays with wonderful success. When she saw him first the tumor was larger than a man's fist, of stony hardness, and firmly attached to the bony walls of the thorax. The surface of the tumor was ulcerated over the area of a five-shilling piece, while the axillary and subclavian glands were greatly enlarged.

On January 9th, after eight applications of the rays, there was intense reddening, associated with severe pain over the site of radial application. The swelling by this time had fallen to the size of an apple, with discharges of caseous matter, fever, and lowered appetite, while the neuralgic pains deprived the patient of a comfortable night's sleep. These pains were confined to the arm and mediastinum.

The rays were again applied between February 6th and 11th and March 6th and 10th. After February 18th the discharge began to change to a watery consistence with separating lamina; the swelling quite disappeared, and the edges of the wound subsequently became red and granular till it ultimately healed.

To-day a large cicatrix marks the site of the morbid growth. In the centre of this are a few excoriations about the size of pin-heads, but all the rest, which is about the size of the palm of the hand, is covered with healthy skin. The glands in the arm-pit and subclavium are decidedly less, while the patient is immensely improved. The pain is now more like a drawing of the cicatrix, but recently a bronchial catarrh has set in, which is probably due to pulmonary metastasis; otherwise the patient expresses herself as perfectly well again. and can enjoy herself.—*Vienna Correspondent Medical Press and Circular.*

The Active Principle of Exodin.

Purely an empirical mixture of the diacetyl-rufigallic acid-tetramethyl-ether, acetyl-rufigallic acid-pentamethyl-ether and rufigallic acid-hexamethyl-ether, exodin, has a well-marked purgative or laxative action, and W. Ebstein has experimented with the ingredients to discover on what this action rests. (*Deut. Med. Woch.*, January 22nd, 1905.) It has been asserted that the last named ingredient possesses the laxative

action of exodin. Ebstein obtained some chemically pure samples of all three, and systematically tested each on a number of persons, including himself. He found that even when given in doses of 1 gram rufigallic acid-hexamethyl-ether has no action at all. The action was compared with that of exodin in the same persons, and it was therefore proved that this substance is not the active principle. Next he tried the diacetyl compound, containing the four groups of methyl-ether; 1 gram again was given, and in one case it acted freely, in another it acted weakly, and in two not at all. In one case, after 1 gram had failed, 2 produced a copious motion. While there can be no doubt that this substance possesses a purgative action, it is clear that the action of exodin is far stronger, the dose of the pure chemical being much larger than the dose necessary to produce the same effect of exodin. Lastily he tried the pentamythl-ether compund. This substance has a purgative action, but it also has the property of causing griping in persons suffering from constipation, which exodin does not possess. It therefore appears that exodin owes its peculiar action on the lucky mixture of diactyl-rufigallic acid-tetramethyl ether and acetyl-rufigallic acid-penetamethyl-ether. The author praises the mild action of exodin, and says that he has been able to prove by experience that when exodin in repeated in doses of 1 to 1½ gram does not act, the best treatment is by means of large oil enemata.—*The British Medical Journal.*

A New Method of Accurately Examining the Hymen in Medico-Legal Cases.—By DR. J. L. LOUDON.

In the case of vigins in whom rape is suspected, the author advises recourse to the following procedure in order to determine the exact nature and degree of multilation of the hymen.

The patient being in the lithotomy position and swabs from the vagina (for examination for semen) having been taken, the parts are freely treated with a 20 per cent. solution of cocain. . . . An ordinary soft red rubber catheter is then taken, and over its point for about one inch or one and a half inches there is placed an ordinary india rubber condom, which is tightly bound into the stem of the catheter by a few turns of thread. . . . This arrangement is gently passed into the vagina; the point is then expanded either by inflation or by injecting a small quantity of warm water. . . . In this way the whole hymeneal margin is fully exposed to view, so that any interruption in its integrity is at once detected, however slight it may be. —*Lancet and Post Graduate.*

Miscellaneous.

THE ANAEMIA OF "HOOK WORM" DISEASE (UNCINARIASIS.)

The commission appointed by the United States Government, February, 1904, for the study and treatment of anemia in Porto Rico, has submitted a report to the governor of that island. This report covers two hundred pages, and is printed both in the Spanish and in the English language.

When the commission began its investigation in Porto Rico, it established a hospital, consisting of tent-wards, first at Bayamon, and later at Utuado, the most anemic districts of the island. Dr. Bailey K. Asheford was put in charge.

"This report (medicine) thoroughly discusses the subject of trophical anemia depending upon uncinariasis. Beginning with the etiology of the disease, we find a thorough description of the life history, incidence, modes of infection, and distribution of the uncinaria worm. Then follows a careful study of the symptomatology of the disease, the life history of the uncinaria in the human host, the course, prognosis and lethality. The sections on prophylaxis and treatment are especially good."

The conclusions of the commission are of interest: The disease known as "anemia" in Porto Rico is only a symptom of some definite pathologic entity or a consequence of some aberration of physiologic processes caused by improper diet, unhygienic surroundings, etc.

The finding of a specific disease which produces anemia, and the disappearance of this symptom under treatment, directed to the disease alone, while the general causes remain unmodified, lead us to believe that the anemia is due, in the great majority of instances, to this specific disease, *i.e.*, uncinariasis or ankylostomiasis.

This disease is caused by the presence of a small worm (uncinaria) in the intestines of the patient. This parasitic worm gains entrance to the subject generally by penetration of the larva through the skin.

The disease is marked by profound anemia and degeneration of vital organs, leading to chronic invalidism, and often results in death. About 90 per cent. of the rural population in all parts of the island are affected. The large number of sufferers must effect the social and economic status of the country.

The affectation is curable in the majority of cases, and is susceptible to restriction or elimination in proportion to the observance of elementary hygienic laws and treatment and cure of those already affected.

The few cases in which anemia is symptomatic of other disease or condition are the same as in other countries, and are produced by the same causes. As exceptions to the rule they tend to strengthen our conclusions that the prevalent anemia in Porto Rico is a consequence that three drugs were of value, namely, thymol, male-fern and beta-naphthol.

First, the patient received a purge of salts, and then on the following day was made to fast until one o'clock, and then was given doses not exceeding four grams; then another purge was given to remove the bodies of the parasite. The purpose of the first purge was to clear the intestines of mucus, etc., so as to allow the thymol to act. The thymol and purge treatment was continued once a week until the feces showed no more uncinaria. The commission generally used from two to four grams of thymol, and fifteen to forty grams of sodium sulphate before and after the thymol.

While the thymol kills the parasite, and the purges remove them from the intestines, these remedies only clear the body of the cause of the disease, and it is necessary to restore the blood to its normal condition, therefore, in many of the cases, the commission used Pepto-Mangan (Gude) in the intervals between the doses of thymol.

"A noteworthy fact is that none of the patients showed any digestive disturbance after the administration of Pepto-Mangan, although the remedy was used for many weeks in each case.

"When we remember the extremely low state in which most of these patients were found on admission, and the fact that several suffered from gastro-intestinal symptoms incident to their disease, this detail is by no means to be underestimated." —*The Southern Practitioner.*

Dr. W. E. Fitch says (*Southern Medicine,* Dec., 1904): "The medical profession are under obligations to Dr. Stiles (Government Zoologist at Washington), for the pioneer work he has done in ankylostomiasis. Before he published his studies on the subject, the disease was regarded as hopelessly incurable, because its etiology was unknown and its pathology unstudied. Now, uncinaria, through the pioneer investigation of Dr. Stiles, has become one of the most easily diagnosed and readily curable affections."

In the treatment of the anemia of "ankylostomiasis" we