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SUTURE OF THE HEART.—A man aged twenty-four years had, some hours before admission, received a stab wound in the left side. He went home alone, and about one hour afterwards was found lying in a pool of blood. On admission to the hospital he was found unconscious; the pulse could not be felt, and no heart impulse could be felt, although heart sounds could be heard to the right of the sternum. In the fourth left intercostal space, in the mid-axillary line, parallel with the rib, was a punctured, non-bleeding wound, about an inch in length. After a camphor injection the patient began to breathe and a pulse could be felt. The left side of the chest did not move on respiration. Under chloroform the fourth rib was

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resected, and the pleural cavity found partially filled with blood and compressing the lung. After evacuating the blood the lung dilated and was found not to have been wounded. On resecting the third rib a wound was found, about one inch in length, in the pericardium. The sac was filled with blood, and, by enlarging the wound, a wound was found in the left ventricle, about two centimeters in length, from which all the hæmorrhage came. The wound was sutured, after which the hæmorrhage ceased. The heart was sutured with difficulty on account of the frequent pulsations. The pulse after the operation was very quick and feeble, but improved after a subcutaneous saline injection. The patient died two and a half days after the operation. At the necropsy it was found that a large branch of the coronary artery had been wounded; the wound had begun to heal, but there was evidence of pericarditis, and various bacteria were found in the fibrinous exudation. — *Cappelen, in Norsk Magazin for Lægeviaenskaben.*

A BOON TO CANADIAN DRUGGISTS.—An Eclectic Medical School of Milwaukee, with a branch office in Chicago, is sending circulars to pharmacists in Canada, offering them a medical diploma with the degree of M.D. for a small sum. The regular price, the letter says, is $35.00, and the diplomas are "good, lawful, and valid in Wisconsin, Kansas, Idaho, Wyoming, Michigan and Indiana," but as they confer no right to practise in Canada the price for them in the Dominion is reduced to $10.00, C.O.D. We were informed by a Milwaukee correspondent that this disgrace to Wisconsin was to be closed, but it seems that the State still protects the diploma mill.—*Med. Record.*

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MADE HIM WEARY.—Perry Patettic—"Gee whiz! This here paper says the blood in a man's body travels more'n 60,000 miles in a year." Wayworn Watson—"Wot did you g an' tell me that fer? Ain't I tired enough already?"—*Cincinnati Enquirer.*

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"OVARIN" AND OVARY JUICE IN CHLOROSIS.—At the recent French Congress of Internal Medicine (*Sem. Méd.*) Spillmann and G. Etienne presented a communication on this subject. They expressed the view that the morbid phenomena often preceding the advent of menstruation were the result of an intoxication, which disappeared when the function became regularly established. The frequency of menstrual disorder in chlorosis was well known. The ovary might be regarded as (*a*) a gland having an external secretion, namely, the ovum; (*b*) a gland having the function of eliminating organic toxins by means of the menstrual blood; (*c*) a gland with an internal secretion which, like that of the testicle, plays an important part in general nutrition. If chlorosis is a disease of the ovaries, these three functions are modified or abolished, and with the suppression of menstruation a special intoxication is developed constituting chlorosis. The bad state of the general health in turn hinders the cure of the ovary. If, therefore, the product of the internal secretion of the ovary could somehow be introduced into the economy, it appeared to the authors likely that a cure both of the local ovarian mischief and of the systematic inroxication might be effected. They used three substances: Sheep's ovaries in the fresh state, dried ovary, and ovary juice prepared by the method of Brown-Séquard and d'Arsonval. Six chlorotic girls were treated with these substances. All the patients, as soon as the administration was begun, experienced very sharp pain, localized particularly in the lower abdomen, with headache and vague muscular pains; in two, rise of temperature (100° F. and 101° F.) occurred; the pulse was accelerated to 100. In three the remote results of the treatment were distinctly favorable, the

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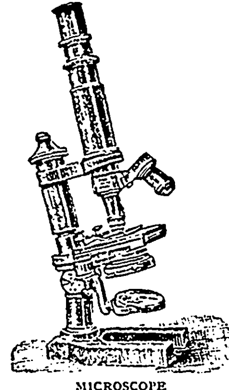

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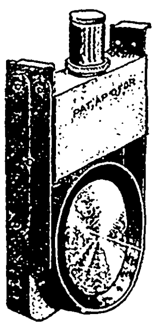

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general condition rapidly improved, the pallor diminished, the number of red corpuscles increased, and strength was regained. In one patient in whom menstruation had been suppressed for three months and a half the menses came on a fortnight after the beginning of the treatment; in another the function was restored in three months. The authors sum up to the effect that, in the treatment of chlorosis, "ovarin" by facilitating the elimination of toxins and introducing into the organism an antitoxic principle, seems to have a favorable influence on the general state, increasing the number of corpuscles and promoting the reappearance of menstruation. Mariet agreed with the authors that injections of ovary juice improve nutrition.—*Brit. Med. Jour.*

OOPHORECTOMY TO INDUCE MENOPAUSE. — A. Johnstone (*Amer. Gynec. and Obstet. Jour.*) has found that a scrap of ovary left behind does not necessarily prevent the suppression of menstruation. If the ligature be close up to the horn of the uterus, so as to crush the sympathetic nerve as it goes into the uterus, there will be no further menstruation. In cases of retroversion Johnstone ties behind the round ligament, so as to bring it into the grip of the ligature. If a knuckle of the round ligament be thus included on each side, he feels sure that the patient will never menstruate, even if both ovaries are left untouched.—*Brit. Med. Jour.*

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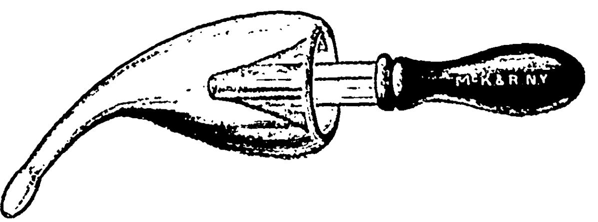
AN ASEPTIC INJECTOR.—By Walter F. Chappell, M.D., Surgeon to the Manhattan Eye, Ear and Throat Hospital. Some objection has been raised to the use of a camel's hair brush, as recommended by me, for the application of the new compound, oleostearate of zinc, to the nasal passages. After considerable experimentation, the instrument shown in the illustration was suggested to me by Mr. Wm. J. Evans. The construction is such that the medicine employed can not enter the rubber bulb, being prevented from doing so by the conelike chamber formed on the principle of a safety ink bottle, thus making the injector aseptic. The rubber bulb limits the amount of force used, which is always an important matter in nose and ear work. The use of the injector is not confined to semi-fluid preparations, or to the nasal passages; in fact, any solution may be employed in it, and where a limited amount of force and fluid is needed, the injector is available for any of the various mucous passages and also for eye and ear applications. Directions for nasal use: Draw the fluid into the aseptic injector as you would into a medicine



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SHARP REPORTING.—An amusing story is told of the editor of a go-ahead evening newspaper, who, in the eternal rushing to press to get ahead of the opposition, was constantly impressing upon his reporters the necessity of condensing all news. A terrific boiler explosion had taken place on board a big ship lying at Portsmouth. "Get down there as hard as you can," he said to one of his men. "If you catch the 11.40 from London bridge you will be there soon after two, and can just wire us up something for the fifth edition, but boil it down." And the reporter went. Soon after three o'clock that afternoon they got a wire from him. "Terrific explosion. Melpomene. Boiler empty. Engineer full. Funeral to-morrow. No flowers."—*Tit-Bits.*

THE firm of Bausch & Lomb, of Rochester, N.Y., have issued an exceedingly neat little brochure, called "The Microscopical Gazeteer." It comprises largely a list of the institutions all over the United States and Canada which have purchased the microscopes made by this well-known firm. The list includes the best and most widely known universities, hospitals, high schools and colleges throughout America. This is certainly proof positive of the optical and mechanical superiority of this firm's products. We heartily recommend these goods to intending purchasers.

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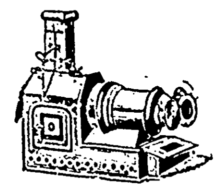

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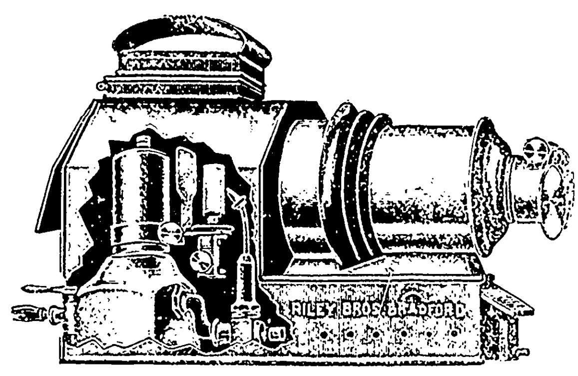

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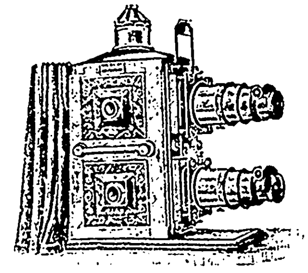

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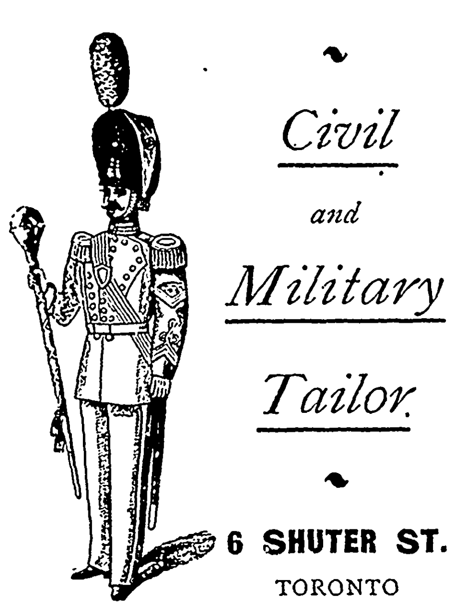

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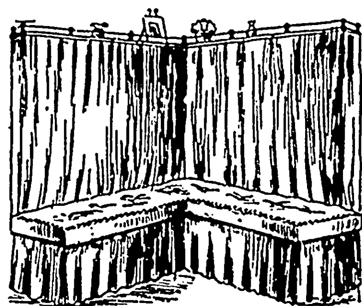

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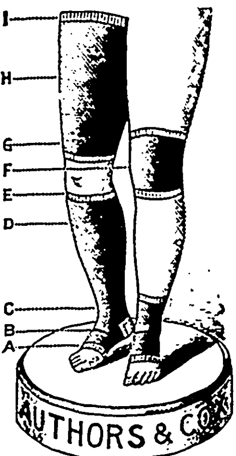

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PARACENTESIS PERICARDII.—Durand (*Rev de Chir*, June 10th, 1896) deprecates the use even of a capillary trocar in tapping the pericardium, inasmuch as there is considerable danger of wounding the pleura or the lung. In all cases of paracentesis of the pericardium the left fifth costal cartilage should be first resected. The additional resection of the sixth costal cartilage, as recommended recently by Delorme and Mignon, is not only unnecessary but, since the sixth costal cartilage is usually, contrary to received opinion, in part fused with the seventh, likely to impair the fixity of the seventh rib. The perichondrium need not be preserved, but the internal mammary vessels should be ligatured at the upper and lower margins of the wound. The triangularis sterni is then separated from the sternum by the fingers, which are carried under the sternum and can then feel the pleura and the distended pericardium The pleura should then be separated from the pericardium; but if the pericardium is not sufficiently exposed the margin of the sternum should be gouged away. The operation, which is a modification of that proposed by Ollier, combines certainty of finding the pericardium with the minimum amount of removal of the chest wall.

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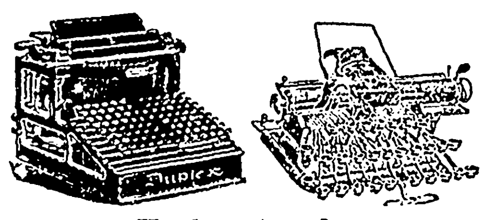

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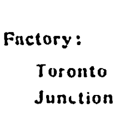

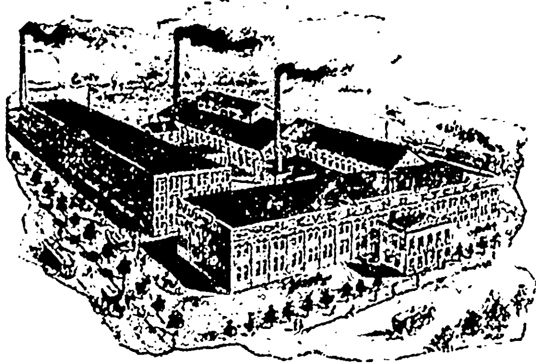

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TOXICITY OF GASTRIC JUICE IN EPILEPSY.—Agostini (*Riv. di Pat. Nerv. e Ment.*) finds that in major epilepsy the gastric juice has toxic properties. Injected into a rabbit it causes fall of temperature, slowness of respiration, weakness, general convulsions and death. These properties are most marked just before and after an attack of epilepsy, and are in proportion to the duration and violence of the attack; they are diminished during treatment by bromides. The toxicity may be due to primary gastric derangement. or to some disorder of the gastric function depending on the disturbance of the nervous system, or possibly the mucous membrane of the stomach excretes some toxin.which is circulating in the blood. It is suggested that washing out the stomach may be beneficial in epilepsy.—*Brit. Med. Jour.*

EUCALYPTUS GLOBULUS IN STRYCHNINE POISONING.—M. Musmeci (*Giorn. Med. del R. Eserc.*), in studying the action of eucalyptus globulus, found that a decoction of the leaves and a solution of a salt of

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strychnine formed a flocculent precipitate of a clear color, while there remained above a solution of a citron-yellow tint, the strychnine at the same time losing completely its characteristic bitter taste. On this account the author raised the question as to whether the strychnine lost its toxic action, and if in consequence eucalyptus could be used as an antidote. For this purpose he carried out a series of experiments on frogs, rabbits and dogs, to ascertain, first, what symptoms would be produced by giving these two drugs together; secondly, what antidotal power eucalyptus would exert on being administered after the development of the symptoms of strychnine poisoning. The author found that a solution of nitrate of strychnine, 1 per cent., when injected with a Pravaz syringe, would kill a frog in eight to ten minutes after a dose of 0.001 gr., while a dog was killed in thirty-nine minutes by a dose of 0.001 gr. per kilo. of its weight. After a decoction of eucalyptus was administered at the same time the animal survived the same dose used for the control experiment, and even became tolerant of a dose equal to 1½ m. per kilo. In other experiments the eucalyptus was administered after convulsions had appeared, and then these became much less marked, and even disappeared. From these experiments the author believes that eucalyptus has a true antidotal action in strychnine poisoning, and recommends that practical application should be made of it by using a decoction for washing out the stomach in such cases.—*Brit. Med Jour.*

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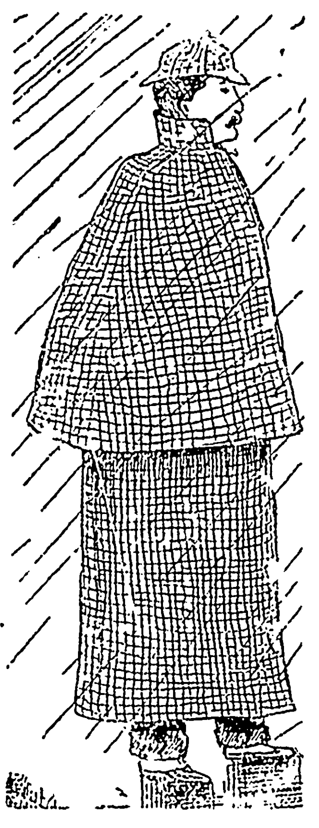

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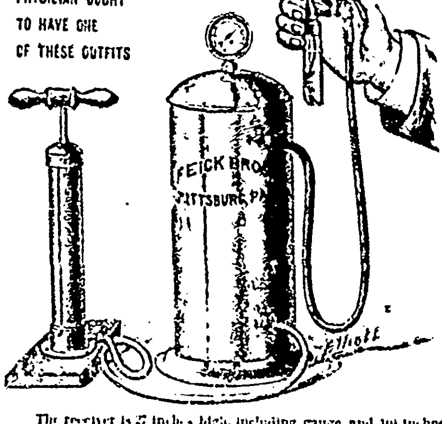

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Vol. VII. TORONTO, NOVEMBER, 1896. No. 5

ORIGINAL ARTICLES.

[No paper published or to be published elsewhere as original, will be accepted in this department.]

ONE HUNDRED CASES OF RETROVERSION OF THE UTERUS TREATED BY VENTROFIXATION AND ALEXANDER'S OPERATION, WITH SUBSEQUENT RESULTS.

By A. Lapthorn Smith, B.A., M.D., M.R.C.S. Eng.,
Fellow of the American Gynæcological Society; Professor of Clinical Gynæcology in Bishop's College; Gynæcologist to the Montreal Dispensary and to the Samaritan and Western Hospitals, Montreal.

It is only after an operation or method of treatment has been on trial in a considerable number of cases, and during an extended period of time, that we are justified in forming any very decided opinion as to its value.

For this reason I have purposely refrained from reporting these cases until several years have elapsed. I have also taken care to report all the failures as far as I could ascertain them, as well as the successful cases.

Having performed the two operations which form the subject of this paper one hundred and ten times, as will be seen by this table (which is too long to read, but which will be published) and some of these operations, having taken place more than six years ago, I believe that I am now in a position to arrive at fairly definite conclusions, which I trust may be of some value to the profession.

Many of these patients have been examined by myself and also by the physicians and students attending the hospitals and dispensaries with which I am connected, who can testify that, with the few exceptions reported, the uterus had remained in good position.

As will be seen by the title of my paper, your attention will be called not so much to the technique of the respective operations, with which it is presumed you are all familiar, as to the reports of the cases, especially the

results ; so that we may judge whether the results obtained were worth the inconvenience, pain and risk of the operation. The observation of these cases has convinced me that the inconvenience of being confined to bed for from two to four weeks is not much greater than that experienced in many cases of retroversion treated by the time-honored tampon and pessary. In the one case the treatment is limited in duration, while in the other it extends over many months or years. It is generally admitted that the pessary, when neglected, is not the harmless instrument it is sometimes supposed to be, many cases having been recorded in which it has caused deep ulcerations of the vagina, several such having come under my own notice quite recently. In some cases the ulceration has gone on to hopeless cancer. Even in cases in which the instrument is so carefully watched and removed and cleaned that no ulceration takes place, yet the instrument has eventually to be abandoned because the vaginal outlet becomes more and more distended, so that a larger and larger pessary has to be employed, until at last even the largest will remain in no longer. As regards the pain of the two methods, Alexander's operation causes very little pain, there being no objection in this case, as there is in the laparotomy, to keeping the patient relieved by hypodermics of morphia as long as any pain lasts, which is generally only for a day or so. Even after ventrofixation, which necessitates the opening of the peritoneal cavity, there is so little disturbance of the abdominal contents that we can venture to use morphine more freely than we would dare to do in abdominal operations performed for other reasons. It is only in cases in which the appendages are diseased and require removal that the pain is really severe, and even in them it does not last very long. On the other hand many of these patients who have had practical experience of both pessary and operative treatment have assured me that they had suffered almost as severely from the pessary as from the operation, while in not a few of them the introduction of the pessary was followed by an attack of pelvic peritonitis, owing no doubt to the disturbance of pus tubes.

When we come to the third point, namely, the risk of the respective methods, while we must admit that ventrofixation, which necessitates the opening of the abdomen, is more risky than the treatment by pessary, the same does not apply to Alexander's operation, which is entirely devoid of danger. On the other hand, it must not be forgotten that such an apparently safe procedure as the replacing of a retroverted uterus with the repositor has frequently been followed by fatal peritonitis. So that when we compare the danger of detaching the adherent retroverted uterus with the finger in the abdomen, as is done in ventrofixation, with the risk of replacing it with the sound, as is necessary before introducing the pessary, the balance of the account is decidedly in favor of the major operation.

A few words as to the indications for these two operations are necessary. At one time I had almost come to the conclusion that ventrofixation was a justifiable and even necessary operation in all cases of retroversion which had resisted ordinary measures of treatment, continued during several months,

not only when the uterus was fixed and the appendages were diseased, but also when it was freely movable; but with increased experience enabling me to find the round ligaments quickly and invariably, and with the possibility of ventrofixation causing abortion in subsequent pregnancy, and sometimes hernia, it seems to me that the major operation should be reserved for cases in which the uterus cannot be replaced or in which the appendages are undoubtedly diseased.

At one time it was thought that Alexander's operation was counter-indicated in prolapsus of the uterus, but I have found that it is an excellent operation in downward displacement as well, especially when combined with curetting, amputation of the cervix, and anterior and posterior colporrhaphy.

As regards the use of a pessary after Alexander's operation, this is a point against the latter when comparing it with suspensio uteri, and although I discarded it for some time, it would be safer to leave one in to take the strain off the ligaments for the first few months. Let us now glance over the forty-two cases of Alexander's operation, only dwelling for a moment on the most salient points of the most interesting ones.

Case 1. Operation performed four years ago on a patient with lacerated cervix and perineum, cystocele, rectocele and retroversion of the third degree, but easily replaced. Symptoms: Choking sensations, dyspepsia, failure of sight, menorrhagia, pain in the back, etc. Operations: Dilatation, curetting, Emmet's, Hegar's, Stoltz's and Alexander's. Seen several years afterwards and found cured; is supporting her husband and children by wig making.

Case 2. Failure; ligaments broke. Ventrofixation performed five months later with perfect success; been heard from since; doing hard work.

Case 3. September, 1892, performed curetting, Emmet and Alexander. Had a child since without any trouble, and without any return of the retroversion.

Case 4. Emmet, Hegar and Alexander. Not seen since.

Case 5. Caughnawaga Indian woman with uterus retroverted to the third degree. Emmet and Alexander. Seen four years later with uterus in good position.

Case 6. Alexander, for prolapsus. Not seen.

Case 7. Alexander, March, 1893. Fine baby since.

Cases 8, 9, 10, 11 and 12, gave perfect results, the last being at the head of a large millinery establishment.

Case 13. Woman of thirty-six, unable to work on account of retroversion. Alexander's operation, January, 1892. Two children since; seen lately; uterus in good position.

Case 14. Woman of twenty; mother of one child; large, heavy retroverted uterus. Alexander's operation in 1892. Uterus remained up for six months, when it gradually fell back. Ventrofixation performed subsequently with good results.

Cases 15 and 16. Gave perfect results.

Case 17. A poor servant girl, totally incapacitated owing to a retroverted

uterus lying upon the sacrum; spent most of her time at the various hospitals, being treated with tampons and douches, and could not keep a situation. Alexander's operation performed in May, 1892. Seen a year later in excellent health.

Case 18. A woman of forty, with retroversion, cystocele and rectocele. Did dilatation, curetting, Stoltz, Hegar and Alexander at one sitting, January, 1893. A perfect success.

Case 19. Woman of twenty-five; complete failure. Operation January, 1893. Both ligament, broke. Patient was too weak to bear ventrofixation immediately, while later on she declined to have anything more done.

About this time, I began to employ another method of operating, since which I have hardly ever failed to find the ligaments or to draw them out without tearing them, and to keep the uterus up. Instead of cutting down to the spine of the pubis, I began to only cut through the skin, superficial and deep fascia, when the glistening white fibres of the external oblique become apparent with the intercolumnar fibres between the pillars of the external ring. The greatest care is taken not to cut a single one of these fibres nor to injure the liltle cushion of fat which fills the ring.

The left forefinger is placed upon the ring and an open pair of Peans' forceps are slipped into the ring and closed upon the contents of the canal. What they have grasped is the round ligament and nerve entire. The ligament is gently drawn out and separated from the nerve and from the fascia surrounding it, no knife or scissors but only the finger being used in the process for fear of wounding or splitting the ligament. When the peritoneal covering of the ligament has been pushed back and about four inches in length drawn out it is fastened in the following manner: a fine silk stitch is passed through the external oblique, through the ligament, and out through the external oblique fascia again about half an inch externally to the ring. Two others are passed at short distances in the same manner, so that the ring is completely closed. By taking this precaution, hernia becomes impossible, and falling back of the uterus nearly so.

Case 21. Lacerated cervix and perineum and retroversion, which were corrected at one sitting. Although the buried silk caused suppuration, the patient ultimately made a good recovery, and has since had a baby without any trouble.

Case 23. Buried silk caused suppuration, but eventually a perfect result was obtained.

Case 24. Lacerated cervix and retroversion. Emmet and Alexander. Perfect result.

Case 25. Drew out the ligaments in one and a half and two minutes respectively.

Case 27. Anteflexion of a retroverted uterus. In this case the deformity and displacement were cured by the fundus being pulled up by the round ligaments and the cervix being pulled down by its vaginal attachment.

Case 28. Had a very severe menorrhagia; she was therefore curetted

before having Alexander's operation. It might be here mentioned that retroversion of long standing almost invariably causes menorrhagia on account of the obstruction of the circulation of the uterus caused by its displacement.

The next four cases had lacerated cervices, and had Schroeder's amputation or Emmet's operation, as well as Alexander's. Case 30 had Tait's operation on the perineum. The next three had Alexander's operation only. Primary union was obtained in all of these eight, and good results.

Case 36. Only required half a minute for one side and a minute and a half for the other.

Case 37. Had endometritis, lacerated cervix and retroversion, for which she had dilatation, curetting, repair of cervix, and Alexander, in February of this year. She was seen on June 5th, when she stated that all her symptoms had disappeared.

Case 38. Was a very stout lady, fifty-two years old, whose uterus nearly came out of her body. She was operated on in September of last year, and has been heard from frequently since, and always states that she is in excellent health.

The remaining four cases were operated upon quite recently, but were apparently successful when last examined.

To sum up, there were forty-two cases in which Alexander's operation was performed. Of these, thirty-nine were successful and three were failures. Of the thirty-nine successful cases, suppuration occurred in three, and primary union was obtained in thirty-six. Of the forty-two cases, Alexander's operation was performed in twenty-four, and in eighteen of them there were performed at the same sitting from one to five other operations, tending to make the uterus lighter or to close up the torn vaginal outlet. Three of the forty-two have had children since without any trouble.

The Ventrofixations.

These number sixty-six. The first of them was performed on March 18th, 1890, on a Caughnawaga squaw sixty-two years of age, sent to me by Dr. Patton. Her uterus had been out of her body for some years. Ventrofixation was performed at the Western Hospital, and although her husband made her walk to Bonaventure Station, more than a mile distant, two weeks after the operation, and although she has done much hard work since, her physician tells me that she remains in good health. In many of these cases six operations were performed at one sitting. In just one-half of them, thirty-three cases, both ovaries and tubes were removed. In seven cases, both ovaries were left in, and in twenty-six cases, one ovary and tube was removed. In most of the cases the uterus was retroverted and fixed in the hollow of the sacrum owing to leaking pus tubes having set up repeated attacks of pelvic peritonitis, forming layer upon layer of adhesions binding down the ovaries and tubes under the uterus, and formed of inflammatory exudation which in time becomes organized.

The condition of many of these women was pitiful; working or walking or

performing their marital duties caused excruciating pain, and was often followed by a fresh attack of peritonitis which confined them to bed for several weeks. The ovaries were generally fixed about two inches from the entrance to the vagina, and the uterus about three inches. Owing to their faulty position the circulation in these organs was very bad, causing them to be exceedingly congested and tender. Because the ovaries and tubes had been diseased for a long time; therefore I removed them ; but there was another reason for doing so ; in order to lift the uterus up it was alsolutely necessary to dig the ovaries out of their bed of adhesions, and in doing so they were frequently torn and bruised very seriously. In fact, in some of the cases my strength was exhausted in doing so, while in one case neither I nor Dr. Perrigo, who was assisting me, was able to break the adhesions, so that ventrofixation was not performed. In such cases there is so much laceration of the ovaries and tubes that I did not venture to leave them. In one case, however, No. 15, the lady refused permission to remove her ovaries, so they were left, much against my judgment, covered with peritoneal adhesions and considerably torn. To my surprise this lady, who had been under the best of treatment which this city affords for several years and still remained a sufferer, is now in perfect health, menstruation is regular and painless, and coitus is also painless. She is now a great walker, and has testified to her gratitude by collecting a large amount for one of our charities.

Cases 7 and 41 also refused me permission to remove the ovaries. Accordingly I left in cystic and cirrhotic ovaries. They have both regretted this since, and one of them has told me that I should have disregarded my promise when I saw what the result would be.

Case 36. Although I dilated, curetted and repaired the cervix and perineum, and fastened the uterus to the abdominal wall, says she is no better for all my trouble. Her physician intended that I should remove the ovaries, which had pained her for years, and before her operation I had diagnosed them as diseased, being very small and hard, yet when I came to remove them one of my colleagues on the staff of the hospital pleaded strongly for conservative surgery, kindly promising to be responsible for the consequences if I left them in ; I finally decided to do so, and the result is that the patient has continued to reproach both her physician and me ever since.

I might embrace this opportunity to state that I have only once or twice regretted having removed ovaries which I thought were diseased, but I have regretted at least twenty times not having removed ovaries which I thought were healthy simply because they were not greatly enlarged. It is a fact, which I do not think is generally known, that small contracted ovaries which are too small even to be palpated with the patient under an anæsthetic, cause constant and sometimes excruciating pain. The patients from whom I have removed such ovaries have assured me the day after the operation that the pain which they had endured had disappeared. In many of the cases in which I left one or both ovaries, the latter were cystic but the cysts were

punctured; the results were as a rule very unsatisfactory. Case 41 was an instance of this.

In cases 17 and 35 the results have been perfect, although the ovaries, not being diseased, were not removed. In these cases Alexander's operation could have been performed, but I felt more sure of ventrofixation. Case 17 has been in a situation as housemaid ever since two months after her operation in January, 1895; and case 35 rides long distances on the bicycle and is in perfect health, although for years previously she was an invalid. In case 16 the patient was suffering severely from dysmenorrhœa; she was dilated, curetted, one ovary and tube removed and the uterus suspended to the abdominal wall. I regret very much not having removed the other ovary, as she was employed in a factory and lost her situation because she was still laid up in bed every month. If I had removed both ovaries she would, I am sure, have made a satisfactory cure, instead of giving a disappointing result. Cases 18 and 19 were both working women who supported themselves and their families by hard day work. In both cases the womb had been out of the body for several years; as no pessary would stay in, it was only by wearing a tight perineal band that they could accomplish their work. In both cases the cervix was ulcerated; one was aged forty-five and the other fifty-eight. In such cases most gynæcologists in Europe, and some in America, advocate vaginal hysterectomy; but although I have removed the uterus for complete prolapse in one case, and she was a remarkable one. because she was scrubbing her floor when we arrived at her house for the operation on a Monday morning, and was out to work when I called to see her the following Monday, yet hysterectomy seems a serious operation for a condition which can be cured by ventrofixation. Nothing could have been better than the results in these two cases. Although in one of them the buried silk sutures suppurated for a time, this did not prevent her from going to work five weeks after her operation, and working hard ever since, with, she assures her doctor, great comfort and satisfaction. In both cases the perineum was at the same time repaired.

In cases 33 and 53 there was no retroversion, but ventrofixation was performed for the following reason: in one a large papillomatous mass was taken out of Douglas' cul de sac, after the removal of which the uterus dropped into the hollow, and lest this might have interfered with a satisfactory result the uterus was stitched to the abdominal wall. Her operation took place nearly a year ago, since which she has been heard from frequently, and always in the best of health.

In the other case from which I had the honor of removing, in the presence of Drs. Bayard, Christie, and other distinguished members of this Association, on the 26th of August last, two large pus tubes of seventeen years' standing, a large cavity was left that I feared the uterus would drop into it and thus spoil the results, so it was stitched to the abdominal wall. The patient not only made an excellent recovery but has been seen frequently since in excellent health.

My dread of retroversion after removal of pus tubes is due to this accident having happened in a woman from whom I removed two large pus tubes, the patient making an excellent recovery; but on being seen several years later she was complaining severely of pain in the back, found on examination to be caused by the uterus having fallen into the hollow of the sacrum. Its faulty position had also prevented it from becoming atrophied, as it usually does after removal of the ovaries.

I regret to have to report that ventral hernia occurred in two cases, one in six months and one in twelve months after operation. But this condition was easily remedied in one case and soon will be in the other, who is opposed to any other operation no matter how trifling. It was in one of these cases, while opening the abdomen a second time to repair the hernia, that I had an opportunity of seeing what takes place after a suspensio uteri operation. Instead of the uterus being fixed to the abdominal wall there was a fibrous cord running between these points suspending the uterus, but not fixing it. Howard Kelly's new name for the operation is, therefore, more correct than the old one.

In conclusion, I may truly say that the results of this operation have been very satisfactory; in some cases, indeed, they have been quite remarkable, and I will continue to do it in every case coming to me with retroversion, or when I suspect adhesions or serious disease of the ovaries, and which has resisted ordinary treatment.

APPENDICITIS.*

By DR. SCHOOLEY, Welland.

By appendicitis I mean those inflammatory actions arising in the right iliac fossa, and including typhlitis, perityphlitis and paratyphlitis. For three-quarters of a century the profession has been trying to solve the trouble arising in this region, but only within the past ten or fifteen years has anything like reliability been reached.

I am not aware of surgical interference prior to 1849. In this year Henry Hancock speaks of operating for perityphlitis. In the *American Journal of Medical Science* for October, 1866, Bartholow writes on diseases of the cæcum and appendix resulting in abscess. In 1867, Dr. Willard Parker operated for perityphlitis. In the *New York Medical Record*, for 1868, Dr. Wynkoop reports a post mortem on a man who died of inflammation of the vermiform process who, two years previously, had been operated on for an abscess of this region. The results of this post mortem appear to have put a damper upon operative procedure for several years.

In looking over the old literature connected with the troubles that may arise in the right iliac fossa, one cannot but be struck with the great caution

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* Read before the meeting of Niagara Counties Medical Association at Thorold.

the various writers observe in endeavoring to fix the exact tissue or organ involved.

Long before the great mass of medical men had realized the seriousness of this disease, a few close and careful observers had satisfied themselves that the cæcum and vermiform process are often the seat of diseases which lead to circumscribed peritonitis—that the connective tissue which lies behind the cæcum over the iliac fossa may be the seat of inflammation and abscess, and that the inflammatory action in the areolar tissue behind the cæcum may result in an abscess which is retroperitoneal.

All these points were settled in the minds of a few of the profession, and this, too, years before the best surgeons had found out that the abdominal cavity could be opened with comparative impunity.

What the use of the vermiform process is, none of us would undertake to satisfactorily explain, but that it is in many cases the cause of death, in others the cause of most distressingly alarming symptoms, no one will call in question. I believe we may charge the appendix with nearly all cases of peritonitis, excepting, perhaps, the genito-urinary tract and operations. Its situation varies greatly, and consequently if an abscess forms, it may be pelvic, lumbar, pericæcal, perinephritic, intraperitoneal or retroperitoneal.

Appendicitis does not necessarily imply adhesions. It may be gangrenous and still loose in the peritoneal cavity. It may even burst and cause general peritonitis, and yet be non-adherent. Within the past six or eight weeks I was called to see a woman seventy-three years old. I found general peritonitis with the greatest tenderness beneath McBurney's point. I strongly urged immediate operation as her only hope, but this was refused. I was called within twenty-four hours of the first symptoms, and visited her twice daily until her death, which took place four days later. In this case, so far as I could learn, there was not even a chilly sensation, the temperature at every visit was subnormal, and the pulse did not get above ninety until about thirty hours before death. At the post mortem, extensive adhesions were found in all parts of the abdominal cavity except the region of the appendix, which was gangrenous, perforated, and entirely free from inflammatory lesions.

In this disease we owe much to Fitz, McBurney, Bull, Stimson, and Keen. Keen makes five forms of the disease:

1. The mild, without abscess, terminating in resolution.

2. The perforative, followed by general peritonitis.

3. Perforative, but protected by adhesions so that a local abscess forms.

4. A class in which the abscess forms slowly, lasting not only for weeks, but for months.

5. Recurrent, or one attack following another.

Bull claims a catarrhal form of inflammation of the cæcum and appendix causing adhesions. Certainly, constipation with violent straining atstool may, cause impaction in the cæcum; the irritating material may extend to the appendix, and while the mucous surface here may absorb the fluid, the solid irritating substance would remain, causing either adhesions, abscess or relapse.

Wier makes three divisions, viz., adhesive, circumscribed and diffused.

No age is exempt. It is most common in adults, though some authorities claim children are especially predisposed to it.

Perforation may take place very early. In fact, in the case to which I was called, I believe that perforation and the setting up of general peritonitis were the first symptoms the patient had paid any attention to, and just here I would remark that I believe we must frequently be satisfied with recognizing the inflammation in right iliac fossa without being able to distinguish whether the cæcum, the vermiform process or the retroperitoneal areolar tissue be the starting point.

The first symptoms are localized ; pain, tenderness, swelling and rigidity of the muscles on the right side—though Parks says the pain is sometimes referred to the whole abdomen or to the epigastrium or umbilical region. If this be the case, we can readily understand how the pain might be mistaken for colic or enteritis. The swelling appears early and depends on the amount of tissue involved. Vomiting and constipation are sometimes prominent. Early diagnosis is of the greatest importance, and yet I am convinced that when the disease is limited to the appendix, and this lies behind the cæcum, it is very liable to elude detection. The mortality is very great, being placed by some authorities at one in four, by others, one in seven. Among the many reasons for this great mortality, we may mention our inability to properly diagnose the actual difficulty and the opposition we get from the friends of the patient, causing delay in surgical interference.

I know of no disease demanding more prompt action, the life of the patient in many cases depending on the conclusion of the medical attendant as to whether the case can be successfully treated medically, or whether he should have immediate surgical action.

Notwithstanding the great amount of literature on this disease, the success in the treatment is by no means flattering to a noble profession. We can open and irrigate the abdominal cavity with but little risk to the life of the patient ; then why this great mortality ? I believe it lies in our inability to sufficiently early diagnose the actual origin of the trouble. Keen's classification is by all odds the most sensible. It will enable us to come the nearest to an early and correct diagnosis.

The treatment is both medical and surgical. Some of the profession tell us the medical treatment should not be considered, but that if you find an abnormal temperature and tenderness under McBurney's point, cut down and find out the trouble. This to a great extent appears very sensible advice but, I fear, is an extreme view. Every case is not necessarily surgical. If the pulse is good, the temperature but little above normal, the swelling circumscribed, and no active peritoneal complications, I would not advise surgical interference. In these cases we will generally find that impaction of the cæcum is the irritating point, and that large enema of hot water and salts with hot fomentations locally will soon give relief. Of course, if the stomach will stand a good saline, all the better. As soon as the bowels have been freely

opened, allay the local irritation with an opiate. Give only liquid food and cathartics only in the incipient stage.

Surgical treatment suits perhaps the majority of cases; in some death is absolutely certain without it, but the knife should not be used with indiscretion. There is abundant evidence to show that with thorough antiseptic precaution the peritoneum may be cut through with an impunity not dreamed of twelve or fifteen years ago.

In the perforative form of appendicitis, involving the general peritoneum, unless immediately operated upon and before extensive adhesions take place, the patient will succumb. Here, as soon as the incision is made, the abdominal cavity is thoroughly irrigated, and the same is done again after removal of the appendix. In these cases most careful and thorough drainage is necessary.

In the perforative form protected by adhesions so that a local abscess results, the immediateness of the operation is not so urgent.

In that form in which the abscess takes weeks, or even months, to show itself, we will generally find it will approach the surface so that it will be unnecessary to open the peritoneum.

In the recurrent variety it may be necessary to operate, but in many cases it is not. I recall a case of this. Some seven years ago I was called to see a young unmarried woman suffering of this disease. She had all the general symptoms, including frequent pulse and high temperature. Operative interference was refused. I opened the bowels very freely, and applied hot fomentation for three or four days, when to my surprise the swelling disappeared. I attended her in seven similar attacks in about eighteen or twenty months, the last one being very severe. I then told her to call in some other physician unless she would consent to be operated upon. Since commencing to write this I called on her to inquire how many attacks she had had since I last attended her about five years ago. She stated she had never had any symptoms of an attack since I last attended her; that neither the swelling nor the soreness has ever been present.

The conclusions I have arrived at are about the following:

1. If there are symptoms of general peritonitis, operate at once, even at night.

2. If there are no symptoms of general peritonitis and but little swelling, but great tenderness under McBurney's point, operate at once. In neither of these cases can either the pulse or temperature have any weight respecting the course.

3. In circumscribed abscess the pulse and temperature have much weight, and these, with local symptoms, must be the guide as to when to operate.

4. In that form where you get an elongated tumor with but little elevation of temperature or increase in pulse, with but moderate tenderness, it will seldom be necessary to operate.

5. The majority of the recurrent type will ultimately recover without operation; when really necessary, between the attacks is perhaps the time preferable.

THE DIFFERENTIAL DIAGNOSIS OF "NEURASTHENIA" AND ITS TREATMENT.

By ELMORE S. PETTYJOHN, M.D., Alma, Mich.

Ever since Beard used the term "neurasthenia," and Van Dusen directed attention to a group of symptoms so named, our profession has been struggling to determine upon a definite group of symptoms to be thus classified, and has, as yet, but poorly succeeded. Althaus, of London, protests against the term and Gower says "nervousness" covers the conditions. Different writers give different illy-defined symptoms and subdivide them into cerebral and spinal, some even finding varied local conditions they nominate neurasthenia. There is one thing they all agree upon, that this group of symptoms indicates disease of some part or every part of the nervous system, or a marked defect in the nutrition of the cerebro-spinal axis, giving an almost endless variety of symptoms most difficult to classify.

The changes noted in the patient come on gradually. There is exaltation and depression in alternate waves, each change lasting from one to three weeks and often poorly defined; a morbid watching of himself and the belief that he will not recover regardless of the experience of others; a disinclination to see a physician; the firm belief that he will not recover; lack of desire for occupation; lack of ambition; nervousness in the presence of others and avoidance of society. He has a tired feeling, or at least the absence of the feeling of conscious well-being, disturbance of vision, insomnia, loss of power to direct attention to anything for any length of time.

In nearly every case some delusion will be found referable to the region of the spine or chylopoietic system, or an unreasonable belief that there is existing some morbid condition of the body which no one can understand or explain. Society and the family are repulsive to him. As one set of symptoms of an exaggerated or depressed condition disappears another takes it place until almost the whole curriculum of symptomatology is manifested. Nervousness, weakness, insomnia, headache, neuralgia, vertigo, exaggeration and depression, with local anæsthesia and hyperæsthesia over the spine (more frequently the latter) and the multiplied expressions of the disturbance of integrity and equilibrium of the nerve centres.

The appetite is poor, tongue coated, breath bad and bowels constipated. The skin is dry or excessively moist, with lessened reaction after cold bathing. Sleep is broken, and if the patient sleeps long enough in hours, is not refreshed. He is oversensitive to noise and cannot endure even rhythmical sounds. He is nervous and restless and the little things that were formerly unnoticed are now very annoying and burdensome. He is excessively fastidious as to cleanliness of person and surroundings. Instead of appearing anæmic, the patient is as often of full habit, ruddy color, and the number of blood corpuscles and the presence of hæmoglobin normal, as demonstrated in

a large number of cases I have examined. All this means, that from lack of elimination, the system reabsorbs from the blood its own ptomains, and there occurs a form of autointoxication, which, leading to or combined with malnutrition and overuse of nervous force, produces this morbid state of the entire system. The urine is of low specific gravity and contains a large amount of phosphates and often some sugar or albumin. In some cases we find a combination of all these elements. If the medulla is affected we generally find sugar, and from impaired nutrition we find albumin.

These conditions must be distinguished from the large amount of urates as found in the uric acid diathesis associated with which are many of these symptoms. This whole train of symptoms is born of a lack of physical nutrition, and there is not a symptom detailed in all this varied category, so-called neurasthenia, which does not belong to and cannot be classified as either hysteria, hypochondriasis or mild melancholia. Anæmia of the cerebral cortex undoubtedly exists in these cases, though often degenerative changes occurring in the vessels of the cortex from excessive use of alcohol or specific infection may present the same symptoms and the diagnosis only made under treatment.

True, neurasthenia may be a convenient term to mollify the friends of the patient, but neurasthenia, as a distinct disease, in my opinion, does not exist. It is a popular term among the laity, and many a young woman has become a useless thing in the world of action because she thinks she has neurasthenia, or as later termed, "Americanitis," which name I utterly repudiate. It is a matter for consideration how much we physicians are to blame for encouraging this popular delusion, and whether we may not some day, on this very account, be accused of nursing patients instead of placing a veto on the laity-born, self-perpetuating fad and letting firm-willed training school graduates do the nursing. I believe we are to-day on the verge of a revision of our nomenclature, and that diseases should hereafter be classified in accordance with their essential producing causes and not according to their symptoms. When this comes to pass the term "neurasthenia" will become extinct.

We are not content with what knowledge we have gained secure or insecure, and while using it as best we may for the good of humanity we realize in all humility how much there is we cannot know yet cannot doubt. Shakespeare asks, "Who can minister to a mind diseased?" I answer, "*No one*," but we can minister to the body and brain diseased, and that right well. Omitting the etiology of these conditions of the nervous system in reference to congenital physical defects, and the effect of the toxic matter of alcohol or specific origin, I believe these abnormal states can be expressed in one word, "malnutrition," and in turn that this condition of the body is chiefly due to the lack of equilibrium between elimination and repair. A continual procession of non-viable atoms is constantly penetrating living molecules, where they are themselves converted into living molecules by assimilation, that undiscoverable power of living matter. Each complex living molecule by varied processes of endosmosis, exosmosis and the chemic reactions with

oxygen and other gases, is reduced to a dead or useless condition of matter, which is then eliminated to make way for the ingestion of other nutrient atoms. The systematic repetition of these processes is life and health. When we quit dying (eliminating) we cease to live. While in health, so far as consciousness registers, these two processes are simultaneous; in a pathologic state of body to be treated, elimination precedes repair. In a sound body there is a complete balance of this *double process of nutrition*. But when the equilibrium of exchange in these molecules of living matter is disturbed in nerve, muscle or blood corpuscle we have merely a functional disorder, which if continued eventuates in a pathologic condition. To produce or aid in producing this double process and re-establishing its balance is rational medical treatment. The alchemists believed that if some agent could be found to fix or crystallize the tissues in their full growth and vigor, decay would be impossible and youth would be eternal. We now know that health is incessant change according to laws of metabolism, and that the extension of the period of vital energy the expression of health, can only occur by that fine balance of waste and repair we call good nutrition. I would mention treatment under three heads—elimination, food, environment. A systematic, scientific course of hydrotherapeutic treatment in addition to medication is, in my opinion, essential to the best results in these cases, in particular, with reference to elimination through the skin. This is obtained by the Turkish, electric, vapor, hot mineral, or fresh water baths (always with cold to the head) combined or alternated with wet hand, alcohol or oil rub and faradization. All of these treatments should be given by a trained nurse under direction of the attending physician. They may be given at the patient's home if he will take the trouble of the details and the doctor give explicit instructions. If the patient is strong enough the entire body may be douched with cold water twice daily provided a good reaction occurs, to stimulate the nerve centres to the greatest activity. The hot bath determines the blood to the surface by temporary inhibition of the vasomotor system dilating the capillaries, withdrawing the blood from the deeper tissues, causing perspiration and elimination direct, and at the same time temporary exercise and increase of nutrition of the skin. Rubbing is skin massage, faradization is a skin stimulant, both of which are exceedingly helpful aside from their soothing effect upon the patient. I do not now speak of the induced current with Tripier apparatus, which affects the muscles and deeper tissues.

For elimination through the kidneys, I prescribe a glass of mild alkaline water agreeable to the stomach on arising, at 11 a.m. and 4 and 9 p.m., using in all eighty ounces of liquid daily, exclusive of that taken with the food. If the solids are in excess and the amount of urine is scant, I direct a pint or quart of ozonate lithia water, additional, daily. A tenth grain calomel tablet triturate at night and saline laxative in the morning are giving regularly as needed.

Recumbent rest and active exercise are difinitely prescribed in frequent alternations every day, with methodical regularity. Passive and resistive

manual movements are directed and those of mechanical movement appliances also, where available. Walking, running, horseback riding, cycling, tennis or ball playing or gymnasium practice after anthropometric examinations are prescribed. When the patient is too weak to be out of bed, the induced current and massage are employed, the patient taking one treatment of each daily, properly graduated, in addition to some form of hydrotherapeutic measure and frequent quantities of light nourishment.

For stimulation of the nerve centres, a hot fomentation to the entire spine, or the alternation of the fomentation and ice to this entire region, produces admirable results. The cold head bath with heat to stomach, liver and extremities reduces cerebral congestion and determines the blood to the central organs when advisable. Wholesome nutritious food should be taken every six hours (during night, if awake) in large quantities, with or without an appetite. Appetite, I believe to be largely a mental condition. Stimulating broths, but not food or milk, should be given between the intervals of eating. The stomach of even a sick person should have some rest. If there is difficulty of digestion, the stomach contents should be examined, and the lacking digestant should be supplied.

The patient's environment should be pleasant, agreeable and *un*homelike. He should be mentally diverted and occupied and at the same time make some effort to forget himself by thinking of something else, and taking an interest in others. The removal from care and responsibility, change of occupation (not idleness, though no set heavy tasks requiring much mental effort), living away from home and business scenes where association of ideas will bring a return of the morbid thoughts are *essential* aides to recovery. Very many things can be done besides watching and feeding the patient. With the daily oversight, care and direction of the physician experienced in the care of these cases and the above indications intelligently carried out, the great majority of this class of patients, both chronic and acute, will recover, and many men and women will be saved from a life of misery and insanity in the present and in the coming generation.

EVISCERATION OF EYEBALL, WITH SCLERO-OPTIC NEURECTOMY.*

By ERNEST HALL.

The case I present to you to-night is one of no little interest, inasmuch as we have here the result so much desired after the insertion of an artificial eye, viz., satisfactory movement. You will perceive, as the patient directs his eyes to the right and then to the left, that the lateral movement of the artificial eye is very slightly less than that of the normal, and that the

* Read before Victoria Medical Chirurgical Society.

movements in the vertical and diagonal planes are also but little restricted. This result, which is greater than I have been able to obtain by any of the standard methods of operation, is due to the fact that the muscles with their sclerotic attachments are left undisturbed while the anterior and posterior parts of the ball are removed. History:

C. H., aged twenty-five. Eye injured ten years ago by burning lime. The ball has grown none since injury, and consequently was somewhat smaller than its fellow. Tension and movement normal, cornea replaced by dense cicatrical tissue. Patient desired deformity removed and accepted tatooing, but after a few applications concluded to have the useless organ removed and an artificial eye inserted. Operation under chloroform. With curved scissors the sclerotic was punctured directly posterior to ciliary body, cutting completely around and removing the anterior part of the eyeball, care being taken not to implicate the insertion of the recti muscles. After evacuation of the vitreous the interior surface was curetted; after cessation of hæmorrhage the edges of the sclerotic were held apart and the scissors again entered about 6 mm. external to the entrance of the optic nerve, and a second circular section made, cutting only with the extremity of the blades so as not to wound contiguous structures. The optic nerve was then divided a few mm. behind its sclerotic attachment, and the piece of sclerotic and nerve stump removed. There remained then of the sclerotic but a circular zone which contained the attachments of all the extrinsic ocular muscles. After irrigation a small iodoform gauze drain was inserted, the sclerotic and conjunctiva sutured and dry dressing applied. Reaction was more pronounced than after simple enucleation, artificial eye worn for a short time without pain on the fifth day.

It would be unreasonable to attempt to establish a new procedure upon the results of a single case, but this method appears to have certain advantages over any that have come before my notice, which, briefly stated, are: (1) The considerable volume of the pad due to the preservation of as much tissue as possible; (2) the extensive movement of the same owing to the muscular attachments being left undisturbed; (3) the exceeding slight risk of paralyzing the muscles during the operation through injury to their nerve supply, and (4) the absence of any tendency to sympathetic disease of remaining eye through the removal of the ciliary region in front and the scleromural connection behind.

A CASE OF FRACTURE OF THE SKULL.*

By DR. HAMILTON MERRITT, St. Catharines.

I was called to see a man on the 1st inst. who was injured by falling a distance of twenty-five feet. I am told that his position on reaching the ground was with legs and arms hanging somewhat down and body horizontal. This is borne out from some injuries, viz., Colles' fracture of right wrist and a contusion of forehead over right eye, and of course some general bruising over the body. However, on seeing him first I found him conscious, though dull, bleeding from right ear, nose and mouth very profusely; pupils normal and responsive to light; cold and shivering from shock. Having had him removed to bed, with hot bottles he soon reacted, and I applied ice to right side of head. The bleeding continued very profuse all that day and night, even under large doses of ergot and iron. He vomited twice a very large quantity of changed and fresh blood, and his bowels also moved twice, removing even more blood, which I thought he had swallowed. He was becoming weak from loss of blood, and I was about to try plugging the post nares when nature preceded me and stopped it all except a very little from the ear. The discharge from the ear gradually became paler in color and less in amount till, on the fourth day, it was simply blood-stained cerebro-spinal fluid. On the third day, too, it was noticed that he could not close his right eye, could not protrude his tongue much beyond the teeth, had considerable difficulty in swallowing, and could not easily dislodge food in his mouth, having to remove it from his cheek with his finger, and the right side of his face was drawn and paralyzed. During his whole sickness he never lost consciousness, slept well and complained very little of pain and discomfiture, except an occasional headache, shooting, as he said, from right to left. My diagnosis is fracture of base of brain, involving middle ear, unattended with loss of consciousness because there was such free escape of blood as to cause no compression; the paralysis being caused by inflammatory pressure on the nerves at their exit at or near their bony canals.

It is my desire to-day, with your assistance, to endeavor to localize as near as possible the seat of injury. That there is a fracture of the base of the brain is practically certain, but how to account for many of the symptoms is more difficult. For instance, the middle fossa of the brain, bounded in front by the lesser wing of the sphenoid, the anterior clinoid process and anterior margin of optic groove; behind, by the superior border of the petrous portion of the temporal; externally, by the squamous portion. anterior inferior angle of the parietal bone and greater wing of the sphenoid, A fracture through this fossa or a part of it would produce these symptoms, it is true, making a communication though the internus auditorius meatus, through the hiatus Fallopii, transmitting, as it does, the petrosal branch of the Vidian nerve and petrosal branch of the middle meningeal artery,

* Read before meeting of the Niagara Counties Medical Association at Thorold.

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and involving by inflammatory process the Gasserian ganglion lying at the apex of the petrous bone, or, even more probable, involving the stylo-mastoid foramen lying between the styloid and mastoid processes and transmitting the facial nerve and stylomastoid artery. That any serious interference with the seventh would cause the facial paralysis, you all know, as it is the motor nerve of all the muscles of expression in the face. It also supplies two of the muscles of the external ear, the post belly of the digastricus and stylohyoid ; through the chorda tympani it supplies the lingualis ; by its tympanic branch the stapedius ; through the otic ganglion the tensor tympani, and through the connection of its trunk with the Vidian by the petrosal nerve it probably supplies the levator palati and azygos uvulæ. Then as to its course it passes outward and forward upon the crura cerebri and enters internus auditorius meatus. At the bottom of the meatus, it enters the aqueductus Fallopii and follows the serpentine course of that canal through the petrous portion of the temporal bone, from its commencement to its termination at the stylomastoid foramen. And just here I would state that, if it were not for the undoubted evidence of laceration of most likely the stylomastoid artery, I could account for the paralysis from a neuritis causing a swelling of the nerve trunk in this unyielding hard canal through which it passes. But if either of these openings were broken into, why should we not have had paralysis of the muscles supplied by the nerve earlier than the third day? As for the other paralyzed parts, they are explained by the anatomical fact that in their exit from the brain of the nerves supplying those muscles they are in close proximity to one another. The glossopharyngeal, regulating deglutition, passes through the jugular foramen and grooves the lower portion of the temporal bone. As for his inability to protrude the tongue much beyond the teeth it is hard to explain, unless the stiffness of the buccal muscles prevent it to a certain extent, for the hypoglossal nerve passes back and makes its exit from the condyloid foramen in the occipital bone much beyond the reach of any injury to the temporal bone. I have been unable to see the tympanum from the constant welling up of the liquid, but as he is deaf in the right ear, and from the escape of the cerebro-spinal fluid, it is certainly ruptured.

PROLAPSE OF UTERUS.*

By DR. ARMOUR, St. Catharines.

In this case there was complete prolapse of uterus and vagina. The patient was twenty-two years of age, and the prolapse had existed for two years since the birth of her only child. There was subinvolution—the cavity measuring six inches—and profuse mennorrhagia, lasting from twelve to fifteen days at each period. The perineum was ruptured down to but not including the

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* Read before meeting of Niagara Counties Medical Association at Thorold.

sphincter, the vaginal walls thickened, the woman depressed, hysterical and suffered much from pain in pelvis and head.

The uterus was replaced, the patient placed in bed with hips elevated and a T-bandage and pad applied to keep it in place when she coughed or laughed. After two days the os was dilated and the uterine cavity thoroughly curetted, which was followed by severe hæmorrhage that required swabbing with tincture of iodine and tamponing tightly to arrest. On the third day the tampon was removed, when it was intended to apply the direct current for the reduction of the subinvolution, but the battery being out of order, applications of Churchill's tincture of iodine every other day and hot douches twice a day were used instead, and at the expiration of three weeks the uterus had receded to its normal size, but during which time it was necessary to keep the hips elevated and the bandage applied to keep it from coming down.

A second operation, assisted by Drs. King and Leitch, was now done, when a large Λ portion of mucous membrane, 3½ inches long, was removed from the posterior vaginal wall and the edges brought together by silk sutures, and the ruptured perineum restored and kept in apposition by three silver wire quilled sutures. Union was slow, and it was three weeks before the quilled sutures were removed and union became secure. ʒj. fl. ext. bib. pru. and ʒss. liq. hyd. bichl. s. d. was given continuously. The woman's weight increased twenty-seven pounds during her stay in hospital. She has since passed two menstrual periods, which were normal in every respect, and the uterus retains its normal position within the pelvis.

Special Selections.

THE X RAYS AND THEIR APPLICATION TO PRACTICE AND DIAGNOSIS.

By Sydney Rowland, B.A.

When it was first announced at the beginning of the present year that a German investigator had succeeded in so manipulating the energy derived from an electric discharge *in vacuo* as to cause such energy to traverse bodies opaque to ordinary light, and, having traversed them, to affect a photographic plate or fluorescent material placed in their path, the announcement was received, even by those best able to judge, with more or less incredulity. It was soon found, however, by many workers in England, following on the lines laid down by Roentgen, that not only was the statement correct, but that the discovery was capable of receiving far wider application than was at first thought possible.

It has for some time been known that when a high tension current is caused to pass through a vacuum there is developed at the cathode a form of energy having a peculiar character of its own. Cathode rays, as they have been called, have been very fully investigated by Wiedermann, Lenard, and other investigators. Crookes, in England, many years ago investigated their properties, but it was not until Lenard discovered the possibility of causing these rays to traverse the walls of the vacuum tube that even any suggestion of their practical utility was indicated.

ROENTGEN'S DISCOVERY.

Roentgen carried their application a step further, and found that when these cathode rays impinged upon some solid substance (the glass wall of the tube, for instance, or the platinum plate in the later focus tube), there was developed a special form of rays, the properties of which are now so familiar. Thus has resulted a discovery already fruitful of beneficent results in the realm of practical medicine, and pregnant with possibilities, the full extent of which it is at present not even possible to suggest. So important is the discovery made by Roentgen, and so many are the fields of physical research which it has already opened up or suggested, that the greatest physicist of modern times has declared that the discovery of the X rays is the greatest of the present century. Thanks to the many investigations which have been made (mainly in this country) into the methods and apparatus most suited to the production of the X rays, it is now possible to produce them in sufficient quantity to be of practical utility in the everyday routine of medical and surgical diagnosis.

REQUISITE APPARATUS.

The apparatus required consists mainly of a coil or transformer, capable of giving off a continuous stream or current of high-pressure electricity; of a suitable vacuum tube, through which the current is passed, and from which the rays emanate; and of a sensitive surface capable, either directly or indirectly, of rendering the rays visible to the eye. It will be well if I briefly mention some of the practical points which experience has raised, and which it is necessary to observe, in the selection and working of the requisite apparatus. First, as to the source of the electricity. Wherever possible, it is advisable to work from accumulators, and this always involves much trouble. The current, as it exists in the mains for household supply is not adapted to the working of induction coils, without considerable expenditure on a suitable transformer. An accumulator

should be chosen that will give a uniform rate of discharge, and for bedside work should be as portable as possible. Personally, I have found the lithanode secondary cell give the best result. Its rate of discharge is very uniform, it is simple in construction, and therefore requires little attention, and it is packed in a very presentable case convenient for transport. But although it is advisable to bestow care on the selection of a suitable accumulator, it is far more important to make certain of obtaining perfection in the induction coil. In this country there is no one who has so thoroughly mastered and brought to such a high state of perfection the practical details of the construction of coils as Mr. Alfred Apps. His experience is the result of years of investigation and practical construction, and to anyone desiring to obtain the best results his coils are absolute necessities. As to the vacuum tube, the first form introduced into this country by Messrs. Newton, from a design of Mr. Herbert Jackson, and now universally copied and sold under the name of the focus tube, is undoubtedly the best. But so many makers have lately succeeded in producing these tubes of high efficiency that it would be invidious to recommend any particular make. The only other apparatus necessary for practical use are the fluorescent screen and photographic plate.

THE CRYPTOSCOPE.

The first substance used for the coating of the fluorescent screen was the platino-cyanide of barium. This was soon superseded by the same salt of potassium, on the ground that the fluorescence was far brighter. This is undoubtedly true, but I have lately seen some screens coated with barium salt which, while being nearly as bright as the potassium, seemed to give far greater contrast and distinctness of the shadows. Much probably depends on the method employed in crystallizing the salt. Many other substances have been used for coating the screens, such as various tungstates and fluorides, and the organic compound, penta-deca-para-tolyl-ketone. But none of these substances have afforded results in any way comparable with the platino-cyanides. The brand of photographic plates is a matter of importance, but one difficult to advise upon, some people preferring one brand, and some another. Personally, I have obtained the best results with Cadet lightning plates, developed with Velox.

PRACTICAL USES.

We come now to the consideration of the practical aids which the new process is capable of rendering to the elucidation of points of medical and surgical diagnosis. It may be at once stated that the process is only of use under those conditions in which we have a substance, or portion of the body which is opaque to the X rays, surrounded by tissues which are transparent, and *vice versa*. This definition of practical utility at once limits the applications very considerably, and when it is remembered that the vast majority of the tissues and organs of the body are extremely transparent, and that only the bones and certain foreign bodies are opaque, a very fair idea is obtained of the extent of the new services rendered by the new process. I must take this opportunity of giving a warning. Whenever the advance of science results in a discovery which has immediate practical bearings on medicine or surgery, there is always the danger lest the extent of the aid which such a discovery is capable of rendering be at first over-estimated. During recent years there have been several examples of this, as witness the sensation which was caused on the introduction of tuberculin and various other antitoxins. After enjoying the full confidence of profes-

sional opinion for a short time, it is generally found that such new discoveries are not capable of accomplishing all that their promoters claimed. When this is found out, the pendulum of confidence is apt to swing back, and the impression remains that these supposed discoveries are absolutely useless. It seems as if men's minds were incapable of conceiving that a new discovery may do much towards assisting medical and surgical work without doing everything; and thus it is in the case of the X rays. It would surely try the patience, if not the sense of the humorous, were I to mention even one-tenth of the absurd and utterly irrelevant questions I have been asked as to the efficacy of the X rays. Some go so far as to imagine a therapeutic use for them, and it has even been imagined that they may influence our psychical life.

We proceed now to consider the various cases in which the new process has actually proved itself of immediate use. It would be best for our purpose if we take the regions of the body *seriatim*.

Skiagraphy of the Head.

In the head, in the region of the skull, its use is practically confined to the discovery of foreign bodies, such as bullets lodged in the brain case. The conditions here are not very favorable, for the soft brain substance, being completely surrounded by the tables of the skull, there is a more or less opaque screen in all directions. But although bone is the most opaque tissue of the body, yet it is not so absolutely to the passage of the X rays, and by continuing exposure for a sufficient length of time, it is quite possible to locate the position of the bullet in the brain tissue. In the cervical spine the position of a tuberculous focus can be readily ascertained. For this purpose it is best to skiagraph from the side, so as to obtain a profile view. Working in this way, I have been able to diagnose caries with facility.

The Thorax.

Coming now to the thorax, we enter on the realm about which so much has been recently said concerning the application of the X rays to the diagnosis of cardiac mischief. It is quite true that by using a sufficiently large plate a skiagraph of the heart can be obtained. That this is possible is due to the fact that anatomically the heart consists of a dense mass of tissue practically surrounded by an air space. But it must be remembered that a skiagraph thus obtained consists of nothing else but a shadow of the outline of the heart. No indication is afforded as to the condition of its valves or cavities, beyond that which can be indirectly inferred from its shape and size. Consequently the knowledge that we are able to gain from the application of the method to this region of the body is no more than can be obtained in a much simpler manner by the ordinary method of percussion. For the diagnosis of foreign bodies in the trachea and bronchi, or imbedded in the substance of the lung, the skiagraph will reveal all that can be desired, providing such bodies are opaque to the X rays. It is especially useful in the all too common cases of children who have swallowed marbles, small coins, etc.

Diagnosis of Spinal Caries.

In the case of thoracic caries a difficulty is introduced owing to the presence of the sternum, and the ribs in front, which act as a more or less efficient screen to the rays. But these difficulties can be easily overcome by so adjusting the position of the tube as to direct the rays laterally to the sternum, and so as to traverse an intercostal space. By this means a slightly oblique projection of the spine is obtained, but for all practical purposes the foreshortening is so insignificant as to be negligible.

Foreign Bodies in the Abdomen.

In the region of the abdomen the practical utility of the process is confined to detection of foreign bodies, the localization of Murphy's buttons, and the diagnosis of lumbar caries, fracture, or dislocation. When localizing foreign bodies in the intestine by this means, it is necessary to bear in mind one or two practical points. Supposing, for example, the foreign body has been detected lying over the right iliac bone. Under these circumstances it would not be unnatural to suspect that the body had lodged in the ileo-cæcal valve. But such an inference cannot be more than the merest conjecture, and if it is decided to operate on the information thus arrived at, it is essential to do so instanter, for the body may not have lodged at the valve, but may simply have been lying in a loop of the intestine immediately over it. If any time is wasted in exposing the part, it is quite possible that sufficient peristalsis may have occurred to have completely shifted the body, or even to have misplaced the entire loop of intestine.

(To be continued.)

DANGERS OF BICYCLING.

Dr. William C. Krauss, Professor of Nervous Diseases, Medical Department Niagara University, says in an article in *The Journal* of the American Medical Association: Ever since the great popularity which has attended bicycling in this country, numerous articles have appeared in the medical and lay press pointing out real and imaginary dangers liable to beset those attracted to this sport. Those dangers have attended both sexes, more particularly the female bicyclists, and consisted in disturbances affecting the pelvic viscera. No doubt over-indulgence in this pastime can and will produce congestions and irritations of these organs, perhaps displacements and even inflammations, but such cases are comparatively rare.

From the moral point of view another danger has been discovered by the Woman's Rescue League of Washington: That the bicycle is nothing more or less than the devil's advance agent, and through the opportunities which it offers is causing an alarming increase of immorality among women. The writer believes this to be true only in so far as it affects those women upon whom the devil already has a mortgage, and employs the wheel only as a subterfuge to foreclose the claim. The wheel has been a great aid to physicians in the treatment of neurasthenic, hysteric and hypochondriac women, and the good it has done to them and the pleasures derived from it by others will more than counterbalance the harm which those unable to ride think it has or may create. Pleasure and health can be derived from bicycling only so long as the laws of hygiene and common sense are heeded, and their violation will be followed by disagreeable consequences.

The male sex is predisposed to that ungainly and inhuman distortion, the "camel's back," as a result of faulty posture and ambition for speed, and perhaps fame. Not only is the spinal column strained and distorted, but the thoracic and abdominal viscera are subject to undue pressure, and hence to restricted movements and imperfect physiologic action. No sport is a healthy one which in its performance coerces the body into an unnatural position, and the great popularity attained by rowing and base ball is partly due to the comfort and pleasure which the normal position of the body insures.

Through long-continued pressure caused by long rides and faulty fitting saddles, the male genito-urinary tract

is liable to damage, and this should therefore be carefully guarded against. The dangers which do arise, however. from bicycling affect the beginners, and scorchers mostly, who have not learned the secret of the sport, namely, moderation.

After consent is obtained from the family physician to ride, (italics ours) a properly geared wheel should be selected, with an easy and comfortably fitting saddle, the handle bar raised so as give the body an erect and graceful position, and this advice constantly borne in mind, that the sport should be discontinued at the first sign of fatigue. As the days go by this fatigue will grow less and less, and the rider able to take longer spins as the muscles become firmer and more accustomed to this form of exercise. The whole system undergoes a certain kind of training or physical education, the heart and respiratory muscles accustoming themselves to the necessary strain just as do the extensors of the thighs and the calf muscles. Just as over-indulgence results in tiredness and lameness of the leg muscles, so also are the heart and respiratory muscles affected. The heart, through increased work put upon it by long, rapid spins, is taxed to its utmost, and when persevered in, serious damage to the heart-walls or heart valves may result. As Osler truthfully says: "Endurance in prolonged contests is measured by the capabilities of the heart, and its essence consists in being able to meet the continuous tendency to overstep the limits of dilatation."

One form of heart-trouble especially is attended upon over-exertion and over-fatigue, namely, the acute dilatation of the heart walls, due to over distension of the muscle fibres. The cause of this dilatation is an incomplete exhaustion of the ventricles, generally the right, during systole, and an excessive engorgement during diastole with possibly some defective nutritive change in the muscle fibres.

THE EVOLUTION OF VERTEBRATES.

Dr. Milnes Gaskell, F.R.S., delivered an address on this subject before the Physiological and Pathological section of the British Association, reported in the *British Medical Journal*. He began by saying that the pivot on which his own theory turned was the central nervous system, especially the brain region. It was inconceivable that any upward evolution should be associated with a degradation of the brain portion of the nervous system. The striking factor of the ascent within the vertebrate phylum from the lowest fish to man was the steady increase in the size of the brain. Among the invertebrates, after the metamorphosis of an insect, when the larval organs were broken up by a process of histolysis, the central nervous system remained intact, and the brain of the imago differed from that of the larva only in its increased size and complexity. The immediate ancestor of the vertebrates among the invertebrates must possess a central nervous system, the anterior part of which is closely comparable with the brain of the lowest vertebrate. The characteristic of the vertebrate central nervous system was its tubular character. Dr. Gaskell's hypothesis was that it was composed of two parts, an internal epithelial tube, surrounded by a segmented nervous system, and that the internal epithelial tube was originally the alimentary canal of an arthropod animal which has become surrounded by the nervous system. Any hypothesis dealing with the origin of one group of animals from another must satisfy three conditions: 1. It must be in accordance with the phylogenetic history of each group. It must therefore give a consistent explanation of the organs and tissues of the higher group which could be clearly shown not to have originated within the group itself. At the same time, the variations

which have occurred on the hypothesis must be in harmony with the direction of variation in the lower group, if not actually foreshadowed in that group. 2. The anatomical relation of parts must be the same in the two groups, not only with respect to coincidence of topographical arrangement, but also with respect to similarity of structure, and, to a large extent, also of function. 3. The peculiarities of the ontogeny or embryological development of the higher group must receive an adequate explanation by means of the hypothesis, while at the same time they must help to illustrate the truth of the hypothesis. All these three conditions were satisfied by the hypothesis stated as far as the head region of the vertebrate was concerned, and he spoke only of the head region for the present. These tests he applied in a comparison of the central nervous system of ammocœtes with the conjoined central nervous system and alimentary canal of an arthropod animal such as limulus, afterwards setting forth coincidences of topographical position and coincidences of structure and physiological function. From these data he concluded that the tubular nature of the vertebrate central nervous system was explained by his hypothesis much more satisfactorily and fully than by any other yet put forward. It further followed that if this hypothesis enabled us to homologize all the other parts of the head region of the vertebrate with similar parts in the arthropod then it ceased to be an hypothesis and rose to the dignity of the most probable theory of the origin of the vertebrates. Speaking of the thyroid gland, he said that of all organs found in the vertebrate, with, perhaps, the exception of the pineal eye, there was none that was so clearly a relic of the invertebrate ancestor. He made several comparisons in technical detail, speculated as to the possible meaning of the notochord, and he concluded by saying that all the evidence pointed to and confirmed the view so strongly urged by Gegenbauer that the head region was the oldest part and the spinal region an afterthought; that the attempt so often made to find vertebræ and spinal nerves in the cranial region is an attempt to put the cart in front of the horse—to obtain youth from old age. It might be fairly argued from the sequence of events in the embryology of vertebrates that the primitive vertebrate form was chiefly composed of the head region and that between the head and the tail was a short body region. Then there would be no difficulty in the respiratory chamber opening originally into the cloacal region —that is, the same cloacal region into which the neurenteric canal already opened. The short junction tube thus formed would naturally elongate with the elongation of the body, and, as it originally was part of the respiratory chamber, it equally naturally is innervated by the vagus nerve. This was the explanation of that most extraordinary fact, namely, that a nerve essentially branchial should innervate the whole of the intestine except the cloacal region. The evidence of palæontology, he contended, as far as it went, confirmed absolutely the evidence of anatomy, physiology, phylogeny, and embryology, and assisted in forming a perfectly consistent and harmonious account of the origin of vertebrates, the whole evidence showing how Nature made a great mistake, how excellently she rectified it, and thereby formed the new and mighty kingdom of the vertebrata. The time was coming, and, indeed, had come, when the fetish-worship of the hypoblast would give way to the acknowledgment that the soul of every individual was to be found in the brain, and not in the stomach, and the true principle of evolution, without which no upward progress is possible, consisted in the steady upward development of the central nervous system.

Reports of Societies.

MEETING OF THE NIAGARA COUNTIES MEDICAL ASSOCIATION.

Dr. King, of St. Catharines, President, in the chair. Secretary, Dr. Campbell, Thorold.

Among those present were Drs. Armour and Merritt, St. Catharines; Drs. Considine and Old, Port Colborne; Drs. Vanderberg and Kellam, Niagara Falls; Dr. Thompson, Drummondville; Drs. Johnson and McClure, Thorold; Dr. Schooley, Welland; Dr. Hough, Jarvis.

Dr. Beattie Nesbitt, editor of the DOMINION MEDICAL MONTHLY, was introduced to the meeting by Dr. Armour. The President extended the welcome of the Association, to which ye editor suitably replied.

Paper by Dr. Schooley, of Welland, on "Appendicitis." See page 488, this issue. Discussion.

Dr. Johnson, Thorold, preferred to hear from Dr. Merritt, who had operated in several cases.

Dr. Merritt, St. Catharines, complimented Dr. Schooley on his paper. While there were not an excessive number of cases of this disease in the last year, there were six or eight cases demanding surgical interference. He quoted Dr. Clark, of Detroit, who says the only safe place for the appendix was in a bottle of alcohol. To a man holding these views, of course there was no difficulty about knowing when to operate. He preferred to take the pulse rather than the temperature as a guide, but in a recent case in which he was compelled to operate the pulse furnished no guide. He expressed the opinion that continued pain under McBurney's point with increase of pulse rate and rise or fall of temperature that operation was advisable, all dangers from septic trouble, etc., being less the earlier the operation. In regard to formation of adhesions preventing pus distribution, the surgical rule holds good that pus should be evacuated wherever found. In those cases where you have recurrent appendicitis, it is often better to operate, as the patient may have a subsequent attack where surgical assistance cannot be obtained.

In response to a general demand, Dr. Armour (St. Catharines), continued the discussion. He agreed largely with Dr. Schooley's paper, but thought this much discussed subject would still bear more. He would like to see more detailed statistics of mortality under the natural course of this disease, also of mortality under operative procedure. He did not agree with Dr. Merritt's views in regard to operation, for he had himself seen scores of cases in his practice which had recovered under medical treatment. He suggested that some of the younger members of the convention could take up the matter of statistics from the returns in Ontario.

Dr. Sheehan, late of Toronto General Hospital, said that they usually preferred to remove the appendix where at all possible. The operations were pretty generally successful, but still there was much division as to the time of operating and the general advisability of operating.

Dr. Schooley in reply said that in regard to Dr. Merritt's laying stress on the pulse he thought that you could not have a case of this kind without either rise of temperature or pulse. Of course where both were subnormal it would indicate extravasation of pus and general prostration. On the whole he could not see any points of criticism with which he was not fairly prepared to agree. In response to the President's question regarding tenseness of the muscles, he said that his experience coincided with that of most observers.

While on the subject the President asked for the opinion of the meeting on the advisability of handing a case of typhoid fever with

perforation over to the surgeon, as was becoming the custom.

Dr. Armour thought this course not advisable, considering the condition the patient would be in when surgical interference would be necessary. He was much opposed to operation at this stage, as the result would be very doubtful.

Dr. Merritt said there were two conditions present, and thought more trouble would be caused by this than by non-interference.

Dr. King said this was the practice in Montreal Hospital. He was opposed to it. It might do in hospital practice, but did not think it advisable in private practice. He saw a case which was diagnosed as appendicitis, in Cornwall, also in Montreal; patient was operated on and induration of Peyer's glands found.

Dr. Merritt read notes of a case of fracture of skull. (See page 497 this issue).

Dr. Hough, Jarvis, said he was there as a guest; spoke of a case at a late meeting of the Railway Surgeons. Man was struck from behind in region of mastoid process. No unconsciousness, hæmorrhage, and then serous discharge, progressive paralysis for from three to eight days of the parts supplied by the seventh nerve; after the twelfth day gradual and finally complete recovery.

Dr. Armour asked whether any of the profession had seen a case where the cerebral substance had escaped in case of fracture.

Dr. Hough mentioned a case where a large portion of frontal bone had been torn off and a quantity of fluid and cerebral substance had escaped. There was complete fibrous covering of this portion, patient is now thoroughly well, though it occurred two years ago.

Dr. Armour mentioned a case of fracture with loss of cerebral substance and recovery.

Dr. King mentioned a case of occipital fracture. Boy hooked by a cow; brain substance exuded; he felt spiculum of bone and drew out a piece an inch long, half inch wide; recovery; no bad symptoms in either of these cases.

Dr. Johnson, Thorold, mentioned a case where a boy was injured by a cork of horseshoe striking in corner of eye. A portion of the brain projected and was torn off; boy recovered perfectly.

Dr. Armour related a case of prolapse of uterus. (See page 498.)

Dr. King asked the nature of the exposed mucous membrane.

Dr. Armour said that it was thickened, congested.

Dr. Schooley said he had better results from combination of carbolic acid, chloral and Churchill's iodine than from Churchill's iodine alone; said Dr. Armour's results were certainly satisfactory, and he believed could not be improved upon. Thought that the woman should not move round house for at least weeks after labor.

Drs. Johnson and Considine concurred in Dr. Armour's treatment.

Moved by Dr. Johnson, seconded by Dr. Armour, That the thanks of the meeting be tendered to Drs. Schooley and Merritt.

Dr. King mentioned the code of ethics. This gave rise to discussion.

Dr. Old said that Dr. Armour had promised each meeting to bring in a report but had not yet done so.

Dr. Armour thought it would be much better to have a code for the entire Province endorsed by the Legislature and then if any member of the profession transgressed the code he should step out.

Dr. Schooley thought it would be much better in the meantime to have a code for themselves.

Drs. Hough and Beattie Nesbitt were elected honorary members. A vote of thanks was tendered the DOMINION MEDICAL MONTHLY. In replying to this Dr. Beattie Nesbitt made some remarks *re* Council affairs and while he agreed that many reforms should be carried out, which will be

fully set forth in this journal, he upheld the $2.00 assessment.

Dr. Schooley agreed generally with Drs. Armour and Sangster, but agreed with Dr. Nesbitt in regard to the annual fee of $2.00, and had no objection to the penal clause. He thought the Council went too far in purchasing the building.

Dr. Armour said the question was, Do you want a yearly renewable diploma? The central management should have sued for the annual fee and there would be no necessity for the penal clause. Can assess for $5.00 or $6.00 without redress. (N.B.—We will discuss this point editorially later on.)

PROVINCIAL BOARD OF HEALTH.

The fourth quarterly meeting of the Provincial Board of Health met at 10.30 a.m., October 23rd, in the office of Dr. P. H. Bryce, the Secretary of the Board, in the Parliament Buildings. Those present were Dr. Macdonald, Chairman; Dr. Covernton, Dr. Cassidy, Dr. Kitchen, Dr. Vaux, and Dr. Bryce. After the minutes of the Niagara meeting had been read and adopted, the Committee on Sewage presented its report on the Ottawa sewage scheme.

The report, which is the result of an investigation made into the Ottawa trunk sewage scheme this month, gives many interesting figures regarding the engineering and sanitary questions involved in the construction of the sewer, and gives evidence of a careful and exhaustive inquiry having been made by the committee. After explaining the nature of the ground to be served by the construction of the sewer, and the questions which have arisen as to its construction, the report concludes by saying:

"So important, indeed, does it seem that the question of the applicability of the separate system to these outlying areas should be fully considered that in the opinion of your committee it would be proper to recommend to the City Council that they have this question carefully gone into by the engineers, since, should they find that the levels admit of the change of the outfails more largely to the east without increasing cost, there could be no good reason why such a plan should not be adopted. Whether this would mean a single eastern outfall for the whole district east of Concession Street, or two or three outfalls as suggested in Mr. Surtees' report, your committee cannot state, since, in practice, it is found that the smaller the sewer the greater the necessary grade.

"With regard to the western outlet, while, as has been fully illustrated already, there is not, in the opinion of your committee, any reason to fear a nuisance arising from the present proposed outlet, and hence your committee has no valid reason for advising either a change of outfall or or an extension at present of the sewer, thereby increasing the cost; yet, it would recommend that this Board acquiesce in any change such as either a present extension of the sewer in the tail-race until it meets the main stream, or in a change of course whereby the outfall of the sewer could be carried through Victoria Ward flats into the Chaudiere, should the City Council so desire.

"It is probable that by utilizing the present sewer in Victoria Ward as a dry weather sewer, and providing for other disposition of the storm water overflow, that the west end sewer outlet could be adjusted to the satisfaction of all parties.

"Your committee would conclude its report by the following quotation from the report of Engineer Keating, made in 1893: 'I need scarcely say that it is true economy to spend a liberal sum of money in preliminary surveys and investigations before commencing a project of this nature, and that I hope you will not make

the fatal mistake, which is sometimes committed by municipalities, of curtailing the allowance of engineering expenses.'"

The consideration of the report occupied the time of the committee during the whole day, the Board going into Committee of the Whole on its clauses. It was finally adopted without amendment, with instructions that a copy of the report be sent to the City Council at Ottawa.

October 24th, 10.30 a.m. The minutes of the previous meeting having been read and adopted, Dr. Bryce read a report of the Committee on Sewers relating to the precipitation works at Hamilton. A sewage farm was recommended in addition to the precipitation works already there. The report was adopted.

A report was read by Dr. Macdonald, the chairman, on the existence of several cases of whooping cough at Grimsby Park last summer. The Park authorities, instead of refusing to receive children suffering from that disease, rather welcomed them, stating the park was an excellent place in which to get cured of the disease. This view was not endorsed by the Board, the country being large enough to provide fresh air for convalescents from contagious disease without bringing them into contact with persons susceptible to the contagion.

Dr. Bryce also presented an interesting report dealing with summer or health resorts. It was shown that in most of these places very crude methods for the disposal of wasted refuse, etc., exists, with here and there defective water supply, and that a number of typhoid fever cases existing in Toronto recently were directly traceable to a summer resort where the disease had been contracted. As a result of this a special committee, consisting of Dr. Cassidy and Dr. Bryce, was appointed to draw up some practicable scheme for dealing with these summer resorts, and to report at the next meeting of the Board.

The Board nominated for the approval of the Lieutenant-Governor in Council the names of five persons to act as Sanitary Inspectors in the unorganized district of Warren, Algoma district.

The report of the Committee on Epidemics was then read. It showed that during the quarter the Province had been remarkably free from such infectious diseases as smallpox, diphtheria, etc. There had, however, been a number of typhoid cases, outbreaks having been reported from Bayfield Village, Islington, Belleville, Warren, Gravenhurst, Utterson, Renfrew, Madoc, Durham Village, Watford Village, Rawdon Township, Osprey, East Zorra and Sault Ste. Marie. It was also shown that in all these outbreaks not one of them had been traced to a public water supply. The Board in its laboratory work had made a water analysis where many of these outbreaks had taken place, and had advised the closing of many infected wells which had proved to be the origin of the trouble.

As an addendum to this report Mr. McKenzie read a report of the work done in the laboratory during the last quarter. (See next issue.) The reports were adopted.

The Board also considered the proposed plans for the public water supply in the town of St. Mary's, and the matter was referred to the Committee on Water Supplies for further investigation.

The Board then adjourned.

TORONTO MEDICAL SOCIETY.

The first regular meeting of the Toronto Medical Society for this season was held in the Council building, October 1st, 1896. President W. J. Wilson was in the chair. Present: Oakley, W. Oldright, J. E. Graham, G. Gordon, A. R. Gordon, McConnell, Primrose, MacCallum, Cotton, Starr, Reeve, H. J. Hamilton, McPhedran, Scadding, and G. B. Smith.

Living Specimens.

Two girls were shown by B. E. McKenzie, cases of paralysis of long standing, which he hopes may improve by massage and muscular exercise. The one aged ten gave a history of tubercular meningitis, lasting ten days, followed by the paralysis. She has now a very marked curvature. A raw-hide jacket was now in use. The second patient was twelve years of age. Right heminopsis present. In walking she is able to extend the hands overhead. Dr. McKenzie believes in such cases it is possible to train the muscles to such a degree as to permit of considerable use of the limbs.

Dr. Wilson then delivered his inaugural address, subject:

Typhoid Fever.

This disease, he said, had been observed since the time of Hippocrates, but it was not until the early part of the eighteenth century that it began to be distinguished from typhus fever. The different views held by various observers as to the pathology of the disease was then referred to by the reader of the paper. It was not until the first half of the nineteenth century that it was discovered that inflammation of Peyer's patches was an invariable accompaniment to the disease. Papers written by Jenner about 1850, went to show that typhoid fever was due to disease germs, and was entirely different from typhus in pathology and etiology. It was not until 1880 that the true cause of the disease was ascertained—the presence of the Eberth's bacillus in the system. This germ was to be found principally in the lymphoid structures of the body, more particularly in the agminated glands of the intestines, the spleen and the mesenteric glands; but it had been found in the blood and various other tissues of the body. It had been found in the body years after the attack was over. The bacillus flourished in water and milk, was both ærobic and anærobic, would not live in gastric juice, but was not injured by pepsin, bile or pancreatic juice. It would thrive, according to some observers, on gelatine containing carbolic acid of 2 in 1,000 strength, while most other organisms would perish.

A discription of the gross and minute pathological condition was then given by the essayist. He first described the bowel lesions. The composition of the bowel contents was then given. The spleen, being a lymphoid structure, was much enlarged, due to vascular engorgement and an inhibition of the normal contraction of the muscular fibres of the capsule and the trabeculæ. Some investigators described the lobules of the liver as giving evidences of inflammatory action and degeneration, areas of cellular infiltration giving an appearance very much like miliary tubercle. The kidneys and the lungs frequently showed inflammatory changes. Meigs had stated that hæmorrhages into the lungs were a frequent phenomena. The condition of the nerve centres had not been sufficiently investigated. The blood is impoverished from lack of its normal supply through the lacteals, from diminished red cell formation, due to altered conditions of the blood-forming organs. It was also loaded with waste and poisonous products. There was engorgement of the large venous trunks, and consequent arterial tension due to inhibition of the splanchnics.

In discussing the treatment, Dr. Wilson said that no doubt the vis medicatrix naturæ does occasionally abort the disease, and he believes that it was reasonable to suppose that well-directed assistance would second his efforts in this respect. To minimize the effects of the poison on the system, the treatment should be directed to the lessening or prevention of pyrexia, the elimination of waste and poisonous products, the prevention of the absorption of poisonous substances from the canal, judicious feeding and the sustenance of the vital powers of the patient. An his-

torical account of the treatment of this disease was then outlined. Coming down to the present day methods, he discussed the cold bath treatment, the purgative, the antiseptic, the acid, and those in which no medicinal treatment had been employed.

Chambers reports 230 cases, the first lot, 109, were treated with intral salines, chalk and mercury, during the early part of the disease, and later with bark, ammonia, ether and wine. Leeching and cupping were sometimes employed, and food given four times daily. The second lot of 121, were treated with 20 minims of dilute muriatic acid for two hours, and were given beef tea and milk freely. The first series gave a mortality of 90½ per cent., and the second, 2½. Hydrochloric acid aids digestion in the stomach increases the salivary, pancreatic and intestinal secretions, is a good hepatic stimulant and consequently aids intestinal digestion and disinfection by stimulating the liver. It also aids in the elimination of poisons with the bile. Its disinfecting power is such as to hinder germ growth in acid in 2,500 solution. It supplies the deficiency of acid found in fibral conditions. The use of calomel, opium, and emetics was then discussed. The technique and rationale of the Brand treatment were then given, special emphasis being laid on the matter and flexion. Brand's mortality was 1 per cent. in one hundred cases; Osler's 7.02. The antiseptic treatment was based on the fact that the toxines of other germs were to be found in the intestinal tract. Calomel, owing to the fact that some of it was changed to the bi-chloride in the stomach, acted as an hepatic stimulant. If deposited on the ulcer it made a good application and prevented the formation of indol and skatol. It greatly retarded decomposition due to low organisms. Podophyllin and such purgatives as acted by irritation were not to be recommended. Salines were useful. Disinfectants should be as insoluble as was compatible with efficiency. Thymol was perhaps the best. The iodine preparations had a detrimental action on the enzymes—diastase, invertin, ptyalin and pepsin. Carbolic acid had the disadvantage of hindering the conversion of starch into sugar and albumen into peptone. Creasote had little effect on the enzymes; but he had observed a foul diarrhœa follow its use. Salicylic acid hinders the action of digestive ferments—emulsin, diastase, ptyalin, pancreatin. Bismuth salicylate, when broken up, acted as its constituents did; so with salol. Bouchard twelve years ago adopted the use of charcoal, and afterwards added naphthalin and iodoform, giving purgatives every third day. He found this lessened the toxic power of the urine. The mortality was reduced from twenty-five to seven per cent. The Woodbridge treatment was so complicated in its composition that the proper value of each constituent could not be got at. Without medicinal treatment Cotting, of Boston, found the mortality to be ten per cent.

Dr. Primrose presented a specimen of mammary carcinoma, showing a method of excising the breast and the axillary glands intact. Watson Cheyne's method gave the best result as to mortality and the percentage of cures, taking three years' survival and non-recurrence as evidence of cure. Stiles' method of using a five per cent. solution of nitric acid which coagulates albumin and had no effect on fat. The parenchyma becomes coagulated like the white of egg, while the stroma becomes gelatinous. Stiles by this method showed that the breast is much more extensive than is generally believed. If the supraclavicular glands are affected Cheyne advises leaving the breast alone. One should be always prepared to remove the breast, the pectoral muscle and the axillary glands in every operation on the breast.

Dr. Oldright presented a specimen

of double hæmato-salpinx, and another specimen reserved for microscopical examination.

Drs. A. B. Cook and P. H. Galloway were proposed as members of the society, and also Dr. Rudolph.

British Medical Association Column.

THE MONTREAL MEETING, AUGUST 31ST, 1897.

Active steps are now being taken in Montreal in connection with the forthcoming meeting. All the necessary local committees have been appointed, and are busily at work. The honorary local secretaries are:

Dr. J. G. Adami (correspondence with England).

Dr. J. Anderson Springle (Canadian and American correspondence).

Dr. E. P. Benoit (French and French-Canadian correspondence).

Offices have been taken at 2,204 St. Catherine St., Montreal, whither all correspondence should be addressed. It may here be pointed out that none but members of the Association, or specally invited guests, are allowed to be present at the meetings, and to take part in the discussions.

All properly qualified British subjects can become candidates for membership.

Applications for membership of any branch must be accompanied by certificates of recommendation from three who are already members of the Association, two of whom must certify from personal knowledge of the applicant.

The secretaries of the various branches will provide the necessary forms of application.

It is recommended that those wishing to be present at the meeting next year should send in their applications to the Montreal, Halifax, Winnipeg or British Columbia Branches almost immediately, so that they may be elected at the December meeting and receive the journal (*British Medical Journal*) of the Association from the beginning of the year.

The subscription for membership, including the regular delivery of the journal, is $5.50 per annum.

There is a unanimous desire on the part of the members of the Montreal Branch of the Association, that the coming meeting shall be regarded not as a local event, but as a welcome to the Association from the whole Dominion. To this end, not only the Presidents of the various branches of the Association, but also the Presidents of the Dominion and Provincial Medical Associations have been placed upon the Executive Committee. Further signs of this desire to make this in no sense a local affair, will be forthcoming shortly.

With reference to the presence of American practitioners at the meeting of the Montreal Branch, the branch finds itself in a position of some little delicacy; members would very willingly invite practitioners across the border to become members of the Association, but unfortunately there is a recent by-law to the effect that none but British subjects can gain membership. The hope to have the by-law amended is destroyed by the occurrence next year of the International Medical Congress at Moscow.

To amend the by-law would throw the Association open to the charge of attempting to promote a rival international meeting. It is to be understood that in the present condition of politics it would be a grave mistake for the Association to throw itself open to this charge. It has, however, been the custom in previous years to invite a series of guests to the meetings, and acting on this precedent, the leading American authorities in the various branches of medicine will undoubtedly be asked to attend at Montreal.

THE DOMINION MEDICAL MONTHLY
... AND ...
ONTARIO MEDICAL JOURNAL

EDITORS:
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No. 1.—Dr. J. DUNCAN, Chatham. No. 4.—Dr. J. CAMPBELL, Seaforth. No. 9.—Dr. A. R. HARVIE, Orillia.
" 2.—Dr. M. F. LUCAS, Ingersoll. " 6.—Dr. GILLIES, Teeswater. " 10.—Dr. H. J. HAMILTON, Toronto.
" 3.—Dr. W. J. WEEKES, London. " 8.—Dr. H. R. FRANK, Brantford. " 11.—Dr. J. A. CREASOR, Toronto.
No. 14.—Dr. J. S. SPRAGUE, Stirling. No. 17.—Dr. C. J. CHIPMAN, Ottawa.

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COUNCIL PROCEEDINGS.

It is amusing to see the amount of time wasted over the very undignified proceedings in connection with the election of President. It has been the custom in the Council and in many other bodies where the by-law says that the President shall be elected by a majority of ballots, that when there is only one nomination it is moved that some member cast a ballot for the nominee, and if adopted this is done and the nominee then declared elected. In other words, it is simply election byacclamation. This has been the custom of the Council in the past, and we think is a sufficiently common sense view of the case to meet with the approval of the profession at large. Yet much time was wasted, much undignified discussion was entered into because this was not considered sufficiently in accord with the technical meaning of the by-law, by some of the gentlemen present. If any of the gentlemen wished to show their disapproval of the nominee for President, their place was to put up some one in opposition and take a ballot.

* * *

As regards all the talk about caucusing and cliques, we have not yet attained the millennium and while some members of the Council may know of an instance of the spontaneous election of the best man, we have usually seen that where this sort of thing occurred, the man was of that peculiar composition that he could be shoved through either a square or a round hole, and his only claim was that he was so colorless that he was objectionable to nobody. We believe the Council will have a thoroughly efficient, active and popular President in Dr. Rogers; we believe that they would have just as thoroughly efficient, active and popular a President in Dr. Sangster. They are both strong men and either of them would do us good.

"FEMALE CYCLISTS."

We have received some communications regarding our editorial on "Female Cyclists," from which we gather that our views did not coincide with those of some members of the profession, nor with some cycle academies, nor with some cycle papers.

We are editing a medical journal, and, pleasant or unpleasant, we propose to take whatever position, taken from a medical standpoint, seems to us necessary on any question whatsoever.

The cycling academy which has written to us, though none was specified in our editorial, states that it raises the saddle, and it is the custom to do so, and it is necessary for the purpose of preventing the tendency of the rider to slip forward. It is none of our business why the saddle is raised; the fact that it is raised is all that we are interested in, although of course we are pleased to learn that there is a definite object to be attained in raising the saddle, and that it is likewise customary. It only remains to see that it does nothing more than to assist the learner to properly manage the machine. With the cycle academy and cycle paper here our interest ends. Of course the letter we received from the cycle academy suggests that we will bring down upon our devoted heads the wrath of innumerable persons in the community; well, we enjoy wrath.

As regards the question from a medical standpoint, we would ask our medical friends to read the closing paragraph of our editorial, which was: "We hope physicians will look earnestly into this matter, and our columns will be open for them to report. We have a number of cases which have been carefully looked into by the physicians of our staff, and we are absolutely satisfied, as far as we are concerned, that female bicycling must be sharply looked after and care exercised in its indulgence." That was our position when we wrote the editorial.

By abstracts from articles within the month which have appeared in other journals, and some of which we reprint in this issue, we are more convinced in our position than ever. One of our correspondents objects to our views on the woman question. While we will not dispute the advantage of allowing women to have full swing and assist in facilitating the world's progress, it has been proven that many things are injurious to women, and whatever may be the views of anyone else, those which we religiously propose to adhere to, are that the greatest function that women can perform for the State is to keep themselves in proper condition to reproduce its citizens, and that anything which tends to disarrange the reproductive organs of a woman is an injury to the woman, an injury to the home, and an injury to the State.

Dr. Walters says he will relate a couple of cases which he knows of his own knowledge—not a case he has heard of on good authority. We are perfectly willing to admit that in some cases bicycle exercise, *properly taken*, may have been of immense advantage in building up the health of a woman; but we will intimate that we have a number of cases which we have not heard of on good

authority, but which we know of our own knowledge, in which the bicycle was absolutely injurious, and its use had to be forbidden.

There is no use having any mock sentiment about this matter. Since the correspondence we have received on our editorial, we have been constantly inquiring into this, and the more we inquire into it the more we are convinced, no matter who may be to the contrary, that "female bicycling must be sharply looked after and care exercised in its indulgence."

THE TORONTO MORGUE.

Since the discharge of Esplanade Constable Williams, the condition of the Morgue, as reported by the coroners of the city, has given the greatest inconvenience.

We understand that they are petitioning to have what all other cities in the United States and Canada have —a properly equipped and attended morgue furnished and attended to by the corporation. As things now stand, there is no heating of the place except by an old wood stove. When it is necessary to conduct an inquest during at least the cold weather, some one has to be found to get a fire lighted in time, or if no one can be found to have the fire going long enough to have the place habitable by the time the inquest is called, it has to be adjourned, thus causing extra expense. It is simply ridiculous to suppose that at the best such unpleasant work, as holding a post mortem examination and coroner's inquest in such a place, is going to be properly attended to if there is added on to this the most unpleasant surroundings imaginable. In addition to this, the police who are said to have the keys frequently are otherwise engaged, through no fault of theirs, and if anything is required to be done, the moving of a body to the Morgue or anything of that kind, the Medical Health Office has frequently to be telephoned, and no one could show more courteous attention to the wants of the medical men than does Dr. Sheard. If it so happens the Medical Health Office is closed, and the police key cannot be got, justice and everything else has to wait the convenience of the city fathers, from whose wisdom this condition emanated. The coroners say that this state of matters has got to be changed, that they propose to be no longer responsible for holding up the delicate scales of justice in such surroundings, no conveniences, no hot and cold water, utensils unclean, no heat, poor lighting, and, as some of our stage friends would say, "no nothin."

* * *

The arrangements for conducting post mortems in the Morgue should be precisely similar to those in the Toronto General Hospital, the cases being such that, from a judicial standpoint, they are of much greater importance.

Then there is the other side of the question, which should appeal to the strong, we might say flagrant, churchmanship which at present is a distinguishing characteristic of the acts of the city fathers, and that is, that no matter how poor the outcast may be, either the Church is right or the Church is wrong, and if the Church is right, their remains should receive just as much attention

as those of anybody else. Especially should this be the case if you wish to impress upon the mind of the jurors who usually surround a post mortem, a due sense of the dignity which should belong to their deliberations. To accuse the average coroner's jury in any moment of their career of partaking of anything in the way of grave deliberation, will no doubt provoke somewhat of a smile from most of the coroners in the city, but this is more the case of the methods than the men. Put men anxious to earn the juror's fee down in the shambles, which the city dignifies by the name of "Morgue," and their deliberations will rise to the plane of their surroundings. Put them in respectable quarters, with the necessary facilities for post mortem work, etc., provide a proper Coroners' court, and the plane will be greatly raised.

UNCONTROLLABLE IMPULSES.

There have been during the past year already at least four murder trials in Canadian criminal courts where the defence has at once based their arguments upon the fact that the prisoner has manifested himself, or has been able to trace by heredity, some taint of some obscure nervous disease, as to render him a subject of so-called "uncontrollable impulses." In all the trials referred to, both the prosecution and the defence each retained a long list of medical men who were prepared to give, what turned out to be, entirely opposite opinions as to any peculiar mental defects in the prisoner at the bar, and which would directly or indirectly have a great influence upon the man's actions at the time the deed, for which he was placed on trial, was committed. In three out of the four cases referred to, the medical experts' opinions for the defence had such weight afterwards that the Minister of Justice commuted the sentence imposed by the trial judge to imprisonment for life in an insane asylum, on the ground that the man was, owing to his mental condition, irresponsible for his actions. Though it would be far from our desire to see capital punishment imposed in every case of so-called murder, yet we cannot but think that too much stress is being laid upon the theory that, because a man may once in his life have had an epileptic fit, for that reason he is practically an imbecile and totally unable to discriminate between what is wrong and what is right. We think that medical men, when placed in the witness box, cannot be too careful in giving a decided opinion upon what is as yet looked upon as a mooted point by the best living medical jurists. As we said some time ago, the profession should not allow itself to become anything approaching a laughing-stock in the eyes of the public, when a case is before the courts, and the medical experts are reported in the newspapers as swearing to opinions diametrically opposed, thereby the more firmly embedding in the public mind that even "doctors differ."

THE KLEBS ANTIPHTHISIN CASE.

In an article on "The Eminently Scientific Nature of Patent and Copyright Laws," in *The Journal* of the American Medical Association, Dr. F. C. Stewart—than whom no one

is more qualified to write on the subject—takes up this special case which came before him as chairman of the Therapeutical Section of the American Medical Association. His contentions are briefly these: The patent laws by Act of Congress say that to obtain a patent the article must be some new and useful thing. To us it is obvious that of all the patent medicines their composition is seldom new and never useful, and to say whether they are new or useful, clearly, competent authority would be a commission of physicians. Then as regards the Copyright Act, advantage is taken of it to trade mark the names of preparations and thus void the clause of the patent law which gives them to the public at the end of seventeen years, as the trade mark which uses the name antipyrin, etc., is perpetual. Now, in regard to antiphthisin, when Dr. Stewart was asked to give his permission for a paper on this subject to be read at the section, he accorded it, more especially as it was the invention of Prof. Klebs, of Klebs-Loeffler bacillus fame, who was present to discuss it. During discussion it was developed that the article was not only patented but trade marked in the United States. As the code of ethics of the American Medical Association forbids physicians prescribing patent medicines, naturally many members refused to allow this paper to go unchallenged, and a resolution was passed and referred to the Business Committee in condemnation of antiphthisin. As is fairly pointed out, it is not morally right to attack antiphthisin and let antipyrin, phenacetin and salol pass unchallenged, these even being admitted to the pharmacopeia. It is the height of absurdity that physicians should have to pay $10 a pound for phenacetin in the United States, when the same substance, under its proper name (paraacetphenetidin) can be purchased for $1.25 a pound in England. It would seem to us that instead of admitting these things to the pharmacopœia, that when men mentioned in the case of phenacetin, for instance, the pharmacopœia would describe all its properties under its correct name, and say distinctly that when phenacetin is prescribed the druggist shall furnish paraacetphenetidin.

MEETING OF THE NIAGARA COUNTIES MEDICAL ASSOCIATION.

We have been all along upholding and encouraging in every way possible the meetings of these county associations. Physicians meet together, become better acquainted, and find that neither baldness nor grey hairs have changed them from the good fellows they were at college. The physician's work is one of continuous self-sacrifice, relieving of pain and doing good to others, but it certainly seems to keep the heart young.

In attending the above meeting at Thorold it was necessary to stop off at St. Catharines, and we there had the opportunity of going over the hospital in company with one of the visiting staff, Dr. Merritt. We found the hospital charmingly situated, although a little upset from the fact that they had been adding a new wing, which has been fitted up with all modern improvements, has a nicely

arranged operating room, with every provision for aseptic operations. The Matron, Miss Hollingsworth, is most capable and energetic and seems to have her staff, like the hospital, in excellent order. It so happened, while we were there, that she was just having her regular dispute with the butcher. It is a strange thing, but it seems to be the case everywhere, that the food supplies of these institutions require more watching than almost anything else. The sweet spirit of charity does not seem to pervade or to oust the commercial instincts of the contractors.

While at the hospital we met another of the staff, Dr. Armour, the able advocate of the profession for that district, and we found him just as enthusiastic, able and courageous in fighting disease as he is in his medico-political warfare. There is always a good naturedness about Dr. Armour's fighting, that even his enemies cannot overcome. At Thorold we had much pleasure in meeting members of the profession from all parts of the district, and have to extend our best thanks for the kind way in which we were treated, which could be nothing else in a meeting conducted by such members as Drs. King and Schooley, both of them gentlemen of what we are pleased to term the "old school." There was also a very pleasant feature, and that was the exceedingly courteous and helpful manner in which the older practitioners, like Drs. Johnson and Considine, encouraged the younger to express their views and criticised them, if criticism were necessary, in a way that could only help and charm. With such a spirit as this prevailing in the Niagara Counties Medical Association, it can only go on increasing in usefulness to its members from year to year.

PAN-AMERICAN CONGRESS.

The Pan-American Congress to be held in the city of Mexico, November 16th to 19th, bids fair to be largely attended. Special inducements are held out by the various railways, so that a trip to this delightful place may be made at a moderate cost. The following countries are included in medical Pan-America: Argentine Republic, Bolivia, Brazil, British North America, British West Indies, Chili, Dominican Republic, Honduras, Mexico, Nicaragua, Paraguay, Peru, Salvador, Republic of Colombia, Republic of Costa Rica, Ecuador, Guatemala, Hayti, Hawaii, Spanish West Indies, United States, Uruguay, Venezuela, Danish, Dutch, and French West Indies.

The sections of the Congress are: (1) General Medicine, (2) General Surgery, (3) Military Medicine and Surgery, (4) Obstetrics, (5) Gynæcology and Abdominal Surgery, (6) Therapeutics, (7) Anatomy, (8) Physiology, (9) Diseases of Children, (10) Pathology, (11) Ophthalmology, (12) Laryngology and Rhinology, (13) Otology, (14) Dermatology and Syphilography, (15) General Hygiene and Demography, (16) Marine Hygiene and Quarantine, (17) Orthopædic Surgery, (18) Diseases of the Mind and Nervous System, (19) Oral and Dental Surgery, (20) Medical Pedagogics, (21) Medical Jurisprudence, (22) Railway Surgery.

This is the second meeting of the Congress; the first was held in Wash-

ington, D.C., in September, 1893. The fraternity of Mexico are striving to make this coming meeting one of much scientific interest. They are having the hearty assistance of the Mexican Government and of eminent men in the profession throughout America in general and the United States more particularly.

The president of the Committee of Organization is Dr. M. Carmona y Valle; the Secretary, Eduardo Liceaga, Mexico city. The chairman of the International Executive Committee is Dr. Chas. H. L. Reed, Cincinnati; and chairman of the Committee on Transportation is Dr. H. L. E. Johnson, L. Street, N.W., Washington, D C.

One-fare tickets may be purchased from any point in Canada. No more charming holiday could be taken by our northern medical men than a trip to this summer sunny land when "November's chill wind blaws loud wi' angry sough." Mexico alone is many times worth the trip, leaving the great congress out of the consideration. Dr. James Thorburn, as consulting surgeon to the Grand Trunk, has been appointed as delegate of the National Association of Railway Surgeons to the Congress.

SPECIAL EXCURSIONS.—We understand that the Grand Trunk Railway have made special arrangements at reduced rates for physicians attending the Pan-American Medical Congress. We are sure physicians taking advantage of this will find their comfort and convenience looked after in every way. The excursion will run over the magnificent Wabash Road, whose system of compartment cars have hardly an equal on this continent.

The Doctor Himself.

The Publishers will be pleased to receive at any time, local or personal items from physicians which will prove of interest to the profession generally.

DR. JIM PATERSON has gone to Durham, Ont.

DR. W. A. BALL has moved to Bathurst Street, opposite Arthur Street.

DR. G. LEIGH ROBINSON and Dr. Ferguson, of the Children's Hospital, Toronto, have left Toronto for Monterey, Mexico, where they will take up practice.

DR. G. ASHTON FLETCHER, of Ontario Street, has purchased the practice of Dr. Mason, of Sorauren Avenue, Parkdale, and will move at once to the West End.

DR. P. H. BRYCE returned about ten days ago from St. Thomas, where he was investigating the recent outbreak of diphtheria in that neighborhood. He also examined the waterworks of St. Mary's.

DR. BRAY, of Chatham; Dr. Pyne, Registrar of the College, and Mr. Downey, official Stenographer, have returned from Lavant, where they were investigating into the charges of unprofessional conduct against Dr. Chas. J. Parsons.

DR. CHARLES SHEARD, Toronto's able Medical Health Officer, has been notified by the Dominion Government of his appointment as Honorary Secretary for Canada of the Anatomy and Physiology Section of the second Pan-American Congress to be held from the 16th to the 19th of this month, at Mexico city. The doctor's engagements unfortunately prevent his attending the Congress.

Obituary.

DR. W. T. HARRIS.

Dr. Harris was born January 17th, 1852. He received a preliminary education at the Brantford public schools and the Upper Canada College, Toronto, and passed the matriculation examination before the College of Physicians and Surgeons, Ontario, in April, 1870. He graduated at the University of Trinity College in 1874, receiving then the degree of Bachelor of Medicine, and in the same year passed the required examination, and was admitted a member of the College of Physicians and Surgeons, Ontario. In the following year, 1875, he received the degree of Doctor of Medicine at Trinity University. During the summer of 1873, he attended clinical letures in New York city, and in 1879 was sometimes Associate Gynæcologist at Mount Sinai Hospital, New York. Dr. Harris commenced the practice of his profession at Langford, Brant County, in May, 1874, and in the autumn of 1875 removed to Brantford. He speedily enjoyed a large practice, as he was one of the most promising physicians in the county, and in this section of the Province.

DR. W. T. HARRIS.

PUBLIC POSITIONS.

Among the public positions which he held were:—Surgeon to the Dufferin Rifles, the Ancient Order of United Workmen, Ancient Order of Foresters, Canadian Order of Foresters, District Orange Association, Commercial Travellers' Association, Examiner of Pensioners for United States Government; one of the surgeons of the Brant County gaol, Grand Trunk Railway, and Canada Life Assurance Company; and was also at one time President of the Liberal Conservative Association of the South Riding of Brant; President of the Brant County Medical Association, and likewise occupied a seat as member of the City of Brantford Public School Board. Dr. Harris was a great reader of medical works and current literature. He was married April 12th, 1881, to Mary Maud, only daughter of Dr. Egerton Griffin, who survives him.

MILITARY CAREER.

In military matters, the doctor was an enthusiast, and the Dufferin Rifles owed very much to his energetic interest. He was the oldest officer in the regiment, having been appointed Assistant in 1877 and Surgeon in 1882. At the time of his demise, he was on the eve of securing the rank of Lieut.-Colonel on account of long service. As a rifle shot he was above the average, and won the first Dufferin medal match, a feat of which he was naturally very proud. On all occasions when the battalion visited other places, and in those instances when regiments visited Brantford, he always took a prominent part. He was accorded a military funeral, both bands and the entire regiment attending, and three volleys were fired over the grave.

PROFESSIONAL HONORS.

The deceased stood exceedingly high in his profession. In addition to representing Trinity College on the Ontario Medical Council for a number of years, he was also two years ago accorded the great honor of being appointed President of that body. As a surgeon his ability was remarkable, and his brother physicians are all agreed that in operations requiring the greatest and most delicate skill he was unsurpassed. In fact, had not family ties kept him in Brantford he would undoubtedly have won a high place in some larger sphere, and he was more than once strongly urged to take up his residence in Toronto.

ILLNESS AND DEATH.

The deceased had been unwell for some time and had not been doing active professional work for a few days. He was able to be around, however, and was out driving the day before. The night previously at about ten o'clock he was alone in his room resting on the lonnge and Mrs. Harris was in an adjoining apartment. Hearing a faint noise, she came in and found that deceased was suffering from a seizure to which he had latterly been subject. She applied the usual restoratives and these failing, summoned her father, Dr. Griffin, who resides in the same house. At this time Dr. Harris was unconscious, and the efforts of Dr. Griffin and Dr. Palmer, who had also been summoned, to restore animation proved fruitless. Death must have taken place in a few seconds. Apoplexy was the cause.

Personally, Dr. Harris was exceedingly popular with all whom he came in contact. His affable manner and generous disposition served to create for him a large circle of friends, not alone in Brantford, but also in other portions of the Dominion, and his demise at so early an age will be sincerely mourned.

DR. CHAS. H. COOK.

WE regret very much to have to announce the death of Dr. Chas. H. Cook, who for years was resident at 202 Simcoe Street, in this city. As most of our readers know, the genial doctor had suffered for years from an old asthmatic trouble, which latterly carried him off. Dr. Cook was always a favorite and well-liked by his confreres. He enjoyed a large practice.

Correspondence.

The Editors are not responsible for any views expressed by correspondents.

Correspondents are requested to be as brief as possible.

To the Editor:

DEAR SIR,—Regarding the article entitled "Female Cyclists," which appears in your monthly for September, I would be pleased if you will allow me to make a few remarks which will perhaps modify the impression conveyed by the article and lead the author of it to examine facts a little more closely. The writer of this article is as far behind the times in his knowledge of bicycles and bicycling as he is in his ideas regarding the duties for which women were intended, when he writes as follows: "We are of the opinion that there never has been any law that we know of which prevented women in Christianized countries from getting out in the open air as much as they pleased, as long as it was compatible with the ordinary duties for which they were intended, raising a family and making a home comfortable." Such old-fashioned ideas as these keep the world from advancing as fast as it might, if people would inform themselves thoroughly upon subjects upon which they wish to express opinions.

The exercise a woman gets in "looking after home" to make it comfortable for some man with ideas such as those expressed above, is certainly exercise, and sometimes too much exercise, but it is not fresh air.

I have ridden a bicycle more or less for twenty years, have a great many friends and acquaintances who are riders, am married thirteen years, and many of my female relatives ride, consequently I have some little experience in the matter, and since reading the article in your journal I have taken pains to make very particular enquiries about the matter referred to in it, and I do not know of one case, such as quoted by the author of "Female Cycling," nor can I learn of any one who does.

No one who knows how to ride a bicycle and how to adjust the saddle finds it "necessary to hinch backward occasionally to relieve the pressure along the urethra." It is not necessary either for one to ride a saddle that goes between the legs, or fits accurately the perineum and adjacent parts. Saddles of different patterns are made to suit different ideas, and some do not fit those parts mentioned any more accurately than a chair, and not nearly so accurately as a horse saddle. Isolated cases there may be of ladies who ride badly-made and ill-adjusted saddles being affected as the author of "Female Cyclists" declares they are, but they are isolated cases only. It is pretty certain that the author of "Female Cyclists" does not ride a wheel, and has no female friends or relatives riding, and is dependent for information on hearsay. I will cite a couple of cases which I know of my own knowledge, not cases which I have heard of on good authority:

A lady, the wife of an acquaintance of mine, was very nervous and run down; when she had finished her house duties she was too fatigued to go out in the fresh air, and only felt like lying down, and any sudden shock gave her a severe start. Her family physician, a man of repute in Montreal, advised her to try the bicycle, which, after a great deal of persuasion, she did. This is five months ago, the lady is now robust, she sleeps well, eats well, her nerves do not bother her, and she is a happy, healthy woman instead of a delicate, nervous and unhappy one. A private club in this city, consisting of ten married ladies and their husbands, were asked to give their opinion and experience on the matter referred to by "Female Cyclists," and the unanimous verdict was that the writer of that article was misinformed.

H. McD. WALTERS,
528 St. Hubert Street, Montreal.

October 5th, 1896.

[The unanimous verdict here is that Dr. Walters has been misinformed, for such sweeping statements that no such trouble arises are absurd in face of actual evidence, and both Dr. Walters and the cycle manufacturers directly contradict their own statements, when in the same letters they draw attention to the many forms of saddles devised to overcome this condition.—ED.]

The Physician's Library.

A Text Book of Materia Medica, Therapeutics and Pharmacology. By GEO. FRANK BUTLER, PH.G., M.D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Chicago; Professor of Materia Medica and Therapeutics, Northwestern University, Women's Medical School; attending physician to Cook County Hospital; member of the American Medical Association, Illinois State Medical Society, Chicago Medical Society, Chicago Pathological Society, and Fellow of the Chicago Academy of Medicine, etc., etc. Philadelphia: W. B. Saunders & Co. 1896.

This work will at once supply the student of medicine with a clear, concise and practical text book, adapted for permanent reference no less than for the requirements of the class-room. The arrangement of the work em-

bodies the synthetic classification of drugs based upon therapeutic affinities, a point which the author wisely considered as the most philosophical and rational, and is certainly the one best calculated to engage the interests of those to whom the academic study of the subject is wont to offer no little perplexity. Special attention has been given to the Pharmaceutical Section, and the "untoward action" and "poisoning" actions of certain drugs are treated under different headings. By the former the author intended to record the effects of medicinal doses in developing certain symptoms dependent more or less upon individual susceptibility and not necessarily assuming the aggravated form incident to toxic doses which exert a definite influence regardless of idiosyncrasy. The work all the way through is capital.

The Revised Statutes of Ontario, 1887, being a consolidation of The Revised Statutes of Ontario, 1877, with the subsequent Public General Acts of the Legislature of Ontario. Two vols. Toronto: Printed by John Notman, Law Printer to the Queen's Most Excellent Majesty. Anno Domini MDCCCLXXXVII.

What a concordance to the Scriptures is to the preacher, so are the Revised Statutes of Ontario to the medical practitioner, though more especially to the practitioner holding a commission as coroner. The R. S. O. must of necessity be the coroner's vade-mecum. Chapters 148-151, Vol. I., are of special interest to the medical profession, taking up the subjects of Medicine, Surgery, Anatomy, Dentistry and Pharmacy. These chapters, taken along with the recent alterations made by the Ontario Government regarding the registration of births and deaths, make most interesting reading, and should be at the finger tips of every physician. The sections on medical education and registration have also been altered somewhat, owing to the late changes made through the Medical Council. We think that these two handsome volumes should be in the library of every doctor.

An American Text-Book of Applied Therapeutics. For the use of practitioners and students. By J. C. WILSON, M.D., Professor of the Practice of Medicine and Clinical Medicine in the Jefferson Medical College; attending physician to the Hospital of the Jefferson Medical College, to the German Hospital, and to the Pennsylvania Hospital, Philadelphia; assisted by AUGUSTUS A. ESHNER, M.D., Professor of Clinical Medicine in the Philadelphia Polyclinic; attending physician to the Philadelphia Hospital. One handsome octavo volume of 1,826 pages. Prices, cloth, $7.00 net; sheep or half morocco, $8.00 net. Philadelphia: W. B. Saunders. 1896.

Among the contributors to this work are some of the most noted physicians of the United States. The book is written from the standpoint of the practitioner and will greatly facilitate the application of the results of the labors of the investigator to the use of the practising physician. The article on Malaria is written by Professor Laveran, to whom the medical world owes so much for his discoveries in connection with that disease. Dr. Rake, the author of the chapter on Leprosy, has embodied in that article many valuable original points as to the treatment, etc., of that awful disease. Twice this work was begun. Both Dr. Rake and Dr. W. C. Dabney, of Virginia University, have died, having passed away in the full day of a life of unusual usefulness. The book has been based upon modern pathologic doctrines, beginning with the intoxications and following with the infections, diseases due to internal animal parasites, diseases of undetermined origin, and finally the disorders of the several bodily systems, digestive, respiratory,

circulatory, renal, nervous and cutaneous. Particular attention has been given to the course of treatment to be pursued at the bedside, rather than to name a list of drugs that have been used at one or another time. The book is capital throughout.

Albutt's System of Medicine. In seven volumes. Vol. I. Price 25 shillings. London: Macmillan & Co. Toronto: Copp, Clark Co. $5.50 and $6.00.

This work is one of those which seem peculiar to the present era of medicine. The different chapters are by different authors, all specialists in their departments, among them some of the highest talent it is possible to obtain both in England and America. A list of their names alone would take a column. It is edited by Thomas Clifford Albutt, Regius Professor of Physics in the University of Cambridge, which alone is a guarantee of its excellence. The utmost care and attention has been given to produce a work which will be a standing companion for the active professional man. We are pleased to see among the list of authors the name of Dr. Adami, of McGill College, the prominent Canadian pathologist.

A Text Book of Special Pathological Anatomy. By ERNST ZIEGLER, Professor of Pathology in the University of Freiburg. Translated and edited from the eighth German edition by DONALD MACALISTER, M.A., M.D., and HENRY W. COTTELL, M.A., M.D. Sections I.-VIII. New York: The Macmillan Co. Toronto: Copp, Clark Co.

Words of commendation for this well-known work are scarcely needed. Edition after edition prove the solidarity and permanance of the work. This work is well known to the Canadian profession, many having had it for their guide and reference since their student days. We are sure that all those who have had it will purchase this the last edition, and be in complete touch with the latest teachings. To those wishing to purchase a work fully up to date, we can say that a careful examination of the pages of this standard reference work will save them the trouble of seeking further. Not only are all points treated fully and clearly, but there is supplied the complete bibliography on each subject, so that any one can seek for information on most subjects at the fountain head. The MacMillan Co.'s imprint is sufficient gaurantee of the typographical excellence of the work, and, we might almost say, the editorial excellence of any work.

A System of Surgery. In contributions by twenty-five English authors. Edited by FREDERICK TREVES, F.R.C.S., Surgeon to and Lecturer on Surgery at the London Hospital, Examiner in Surgery at the University of Cambridge. Volume II. In one octavo volume of 1,120 pages, with two colored plates and 487 illustrations. Cloth, $8.00. Lea Brothers & Co., Philadelphia and New York.

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Births.

HODGETTS.—On October 21st, at 187 College Street, the wife of Dr. Chas. Hodgetts, of a daughter.

Marriages.

FREEMAN—LEVESQUE.—On October 20, at Rock Springs, Wyoming, U.S., the residence of the bride's father, W. C. C. Freeman, M.D., son of Wm. Freeman, M.D., Georgetown, Ontario, to Marie Rosanna, daughter of F. Levesque, Esq.

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ALBUMINURIC RETINITIS.—Moglie (*Il Policlinico*), who has made a study of this subject, finds that the primary alterations in the retina are along the course of the vessels—arterio-sclerosis, hyaline degeneration, etc. They are not due directly to kidney disease, but to a common cause. Albuminuria experimentally induced does not cause retinitis, and, *vice versa*, there may be an albuminuric retinitis without any albuminuria. As to the question of precedence between retinitis and Bright's disease, the author is unable to decide definitely. The white patches in the retina generally attributed to fatty degeneration are, in the author's opinion, only transformed hæmorrhages. One cannot diagnose Bright's disease from ophthalmoscopic observation alone, however characteristic the appearances may be. Neither is it possible to differentiate between the various forms of nephritis by ophthalmoscopic examination. The author agrees with the common opinion as to the seriousness *quoad vitam* of the appearance of albuminuric retinitis; curiously enough, the prognosis is said to be slightly better in alcoholics.—*Brit. Med. Jour.*

MILK DIET IN BRIGHT'S DISEASE. — Ajello (*Gior. dell. Assoc. Napol. di Med. e Naturalist.*) has studied the effect of milk diet and of mixed diet in twenty-one cases of chronic Bright's disease, and he concludes strongly in favor of a mixed diet; at any rate, as far as the chronic stages of Bright's disease are concerned. Of the twenty-one cases, milk diet increased the volume of urine in nine, diminished it in eleven, and had no effect in one. The albumen diminished in only five cases, and increased considerably in sixteen under milk, whilst under the same diet the urea diminished in eighteen cases, the phosphoric anhydride diminished in thirteen, the same for the

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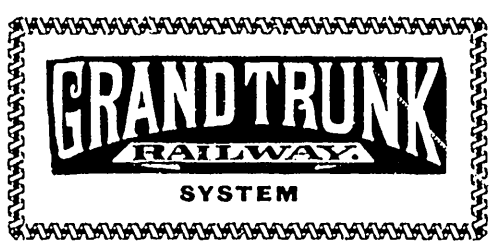

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sulphur in thirteen cases, and conversely under a mixed diet these elements showed an increase. Full tables are given of each case. In the acute stages the author would advise milk diet, but he is convinced that for the chronic stages of the disease a mixed diet is far better.—*Brit. Med. Jour.*

THE COLLECTIVE INVESTIGATION OF DIPHTHERIA IN PRIVATE PRACTICE.—In summarizing their report on the "Collective Investigation of Diphtheria in Private Practice," the American Pediatric Society lays particular stress upon the fact that the essential point in treatment is the early employment of antitoxine, and strongly recommends the use of the most concentrated strength of an absolutely reliable preparation. That the product of the Mulford Company fully meets these requirements is proven by the fact that the Massachusetts and Pennsylvania State Boards of Health have examined such samples of antitoxine as are offered for sale in those states, and report the following results: That antitoxine (Mulford Co.'s) is free from bacteria and is fully up to the advertised strength. It is also highly concentrated. The Mulford Company, in addition to their regular standard of 100 units to each c.c., are now prepared to furnish antitoxine of a strength of 250 (potent) and 500 units (extra potent) to each c.c., being the most highly concentrated serum before the profession, and meeting the recommendations of the American Pediatric Society in every respect, i.e., maximum of dose with minimum of bulk, thus obviating pain and annoyance to the patient, the necessary decrease in the amount of substances other than the serum introduced into the circulation, more rapid absorption, therefore more prompt re-

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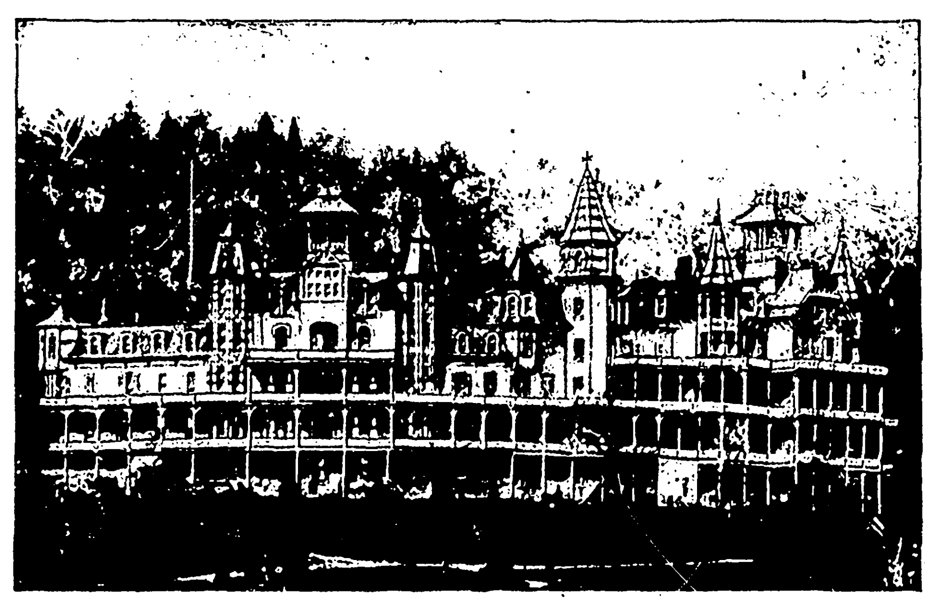

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FŒTUS KILLED BY TYPHOID FEVER.—Etienne, of Nancy (*Gazette Hebdom. de Med. et de Chir.*), examined a five months' fœtus, which had been delivered from a girl, aged 18, on the twenty-ninth day after typhoid fever had declared itself in the mother. The child's spleen and intestines, as well as other organs, showed no evidence of the disease, and the placenta was healthy. Blood from the right side of the heart, and from the spleen, liver and placenta was carefully examined, and cultures were made. The typhoid bacillus was found in abundance. The fœtus had really died of typical acute blood poisoning from a large dose of the bacillus before the occurrence of any local change.—*Brit. Med. Jour.*

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References given when required.

TORONTO, September 4, 1893.

THE GRAFTING OF LIVING ADULT AND EMBRYONIC TISSUES INTO CERTAIN ORGANS OF THE BODY.—Alessandri (*Il Policlinico*) reports at length certain of the results of his experiments in the above subject. Dogs were the animals employed. Experiments on the grafting of pieces of liver into the liver, the kidney, the testes, and the subcutaneous tissue, showed that in no case was there a true growth of the engrafted piece; when liver was grafted into liver there was a prolonged vitality of the engrafted substance, and even in the spleen the engrafted liver contained a considerable amount of vitality. On the other hand, when grafted into the testes, kidney, or subcutaneous tissue there was complete and rapid disappearance of the hepatic substance. Similar experiments with regard to the spleen showed that grafts of that organ could easily be made in the liver; the growth was, however, never complete, as a small part of the graft always died. The part of the graft which "took" was that which was deepest and closest to the liver tissue. Splenic grafts into the kidney and subcutaneous tissue were uniformly negative. The author reserves the account of his experiments with embryonic tissues for another time. Both series of experiments may throw some light on the nature of new growths from the point of view of the embryonal germ theory.—*Brit. Med. Jour.*

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COMPRESSION IN TRAUMATIC NEURITIS.—Delorme contributes an article (*Jour. de Med.*), accompanied by notes of ten cases on the treatment of traumatic neuritis. The first case was that of a soldier who, having received a bullet wound in the neck, became a martyr to neuralgic pain for twenty-three years. The cicatrix was removed several times by operation, the galvano-cautery, caustics, etc., were applied without success, for the burning lancinating pain still continued. The least touch or draught caused agony. In the second case a soldier injured the last phalanx of the right index, and for several months he complained of severe pain shooting up the rest of the hand and up the arm. The other cases were more or less similar, consisting in accidents due to kicks from horses, etc., to which soldiers are liable. In all these cases the writer obtained surprising results by the following method of treatment. The exact extent of the painful area is defined: then the patient, either sitting or lying, is supported by assistants, and the operator compresses the affected part, such as the finger, between his own finger and thumb with all his strength. This is done successively over the whole extent of the hyperæsthetic area, over and round the cicatrix, beginning at the most

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painful point. If after the first application, which lasts only a few seconds, any hyperæsthesia remain, the performance is repeated after a few minutes' rest, and this may even be done a second or third time after a few days' interval; in many cases a single sitting is enough. The pressed finger is then wrapped up for eight or ten days in a wool dressing. After this treatment the finger, which previously could not be touched, however lightly, without provoking extreme pain, can now be handled with impunity, and the sensation of touch may show little or no alteration from normal, and in the course of a little time trophic disturbances, even of long standing, disappear. Thus, in the first case quoted by the author, the pain completely disappeared after two sittings at four days' interval. The hyperæsthetic area had completely recovered, and the shoulder, which before was kept in a drawn-up posture, in the effort to obtain ease, returned to its normal position, and the general health of the patient underwent a veritable transformation. It is now three years since the pressure was applied, and there has been no return of the pain. The other cases are all more or less similar. The author, it may be remarked, does not employ a general anæsthetic, as he rather fears production of syncope, and he even thinks that a local anæsthetic, though possibly useful in some cases, might in some respects be inconvenient, as it is important to know exactly the limits of the painful area. Lastly, he remarks that it is necessary to eliminate any hysterical factor before having recourse to this somewhat heroic treatment.—*Brit. Med. Jour.*

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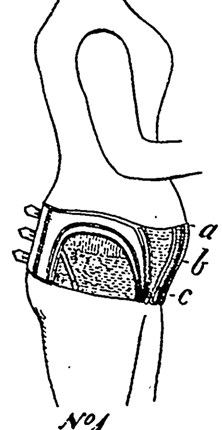

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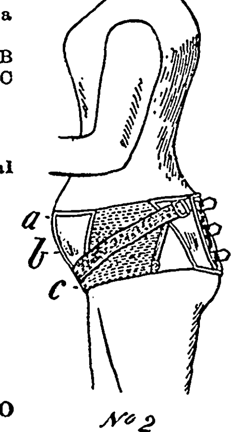

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Congres Francaise de Medecine at Nancy (*Med. Mod.*), Lannois and Linossier presented a communication on the treatment of rheumatism by local applications of salicylate of methyl (oleum gaultheriæ), a method which they claim to have been the first to propose. Clinically they have used the method in different forms of rheumatism (acute, subacute, gonorrhœal, etc.) and in the various cases of peripheral pain (neuralgia, neuritis of tuberculous subjects, etc.). In all these cases salicylate of methyl had a well-marked effect on the pain, causing it to cease in a variable time and for a longer or shorter period according to the nature of the case, and bringing about a cure in a few days. The drug must be used in cases in which for any reason it is desired to obtain a local effect, and when the ordinary remedies for rheumatism are not well borne by the stomach. Salicylate of methyl acts well in acute articular rheumatism, but on account of the difficulty of applying it to painful joints it must be employed in such cases only if the internal administration of remedies has failed. On the other hand, in subacute and chronic forms, in the painful paroxysms which occur from time to time in the different varieties of deforming rheumatism, local absorption of salicylate of sodium acts as well as salicylates taken by the mouth, often better.—*Brit. Med. Jour.*

THE SERUM DIAGNOSIS OF TYPHOID FEVER.—Widal describes a method (*Journ. de Med.*) of considerable importance in the diagnosis of typhoid fever by means of a simple reaction *in vitro*. Having inoculated separately tubes of bouillon with Eberth's bacillus and the B. coli communis, a few drops of serum are added to each from an animal ren-

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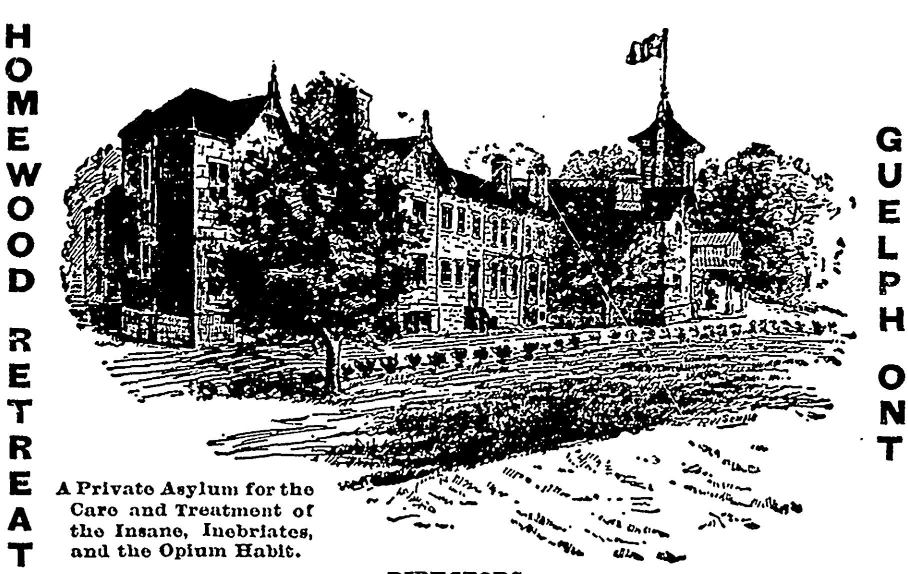

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dered strongly immune for typhoid. After the first four or five hours the tube containing the coli bacillus becomes slightly cloudy, the other remaining perfectly clear. At the end of twenty-four hours the former is extremely cloudy all through, the culture of Eberth's bacillus being either very slightly so or not at all, the organisms being precipitated to the bottom of the tube as a white flocculent mass. A drop of the coli culture examined under the microscope shows that the bacteria are isolated and characterized by great mobility. A drop of the Eberth culture shows sparse conglomerations of the organisms, which are immobile, thick and deformed, for the most part being stuck together. The author finds that the serum of a thoroughly immune animal is much more active than that of the human subject convalescent from typhoid fever, and the greater the degree of immunity in the animal the greater the activity of the serum in producing this phenomenon, and he has been able to obtain marked results with the serum obtained from an immune ass in the proportion of 1 drop to 10 c.cm. culture. The author also finds that the serum retains this power when dried at the end of six months, it being sufficient to dissolve a fragment in some bouillon. He also carried out some observations with the view of discovering the effect produced by the blood serum from patients at different stages of the disease; for this purpose he examined six cases on the eighth, twelfth, fifteenth, sixteenth, nineteenth, and twenty-first day of the disease, and on each occasion he obtained the conglomerating and immobilizing effect with great distinctness. The method is as follows: A small quantity of blood is withdrawn from the bend of the elbow by means of a

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sterilized syringe; the serum is decanted and a few drops added to an inoculated tube of bouillon in the proportion of 1 to 10 or 15 parts of the latter. This is placed in the incubator, and at the end of twenty-four hours the flocculent precipitate will be found. This can be controlled by an inoculated tube of bouillon without the addition of blood serum, which will show a uniform cloudiness, and the difference between the activity of the organisms in the control tube and the conglomeration and immobility of the other is very marked.—*Brit. Med. Jour.*

EXPERIMENTAL NEPHRITIS.—Pernice and Scagliosi (*Virch. Arch.*) give a short account of the histological appearances they found in the kidneys after injection of anthrax bacilli, b. pyocyaneus, staph. pyog. aureus, and b. prodigiosus into the blood. As the authors found similar alterations after injection of the respective toxins, they conclude that the toxic products of bacteria also lead to nephritis, and not only the simple passage of the bacteria through the kidneys in process of excretion from the body.—*Brit. Med. Jour.*

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BACILLUS SMEGMATIS AND TUBERCLE BACILLUS.—Grethe (*Fortschr. der Med.*) points out the need for some simple method of differentiation of the smegma bacillus from that of tubercle. In one case a kidney was removed as tuberculous, supposed tubercle bacili having been found in the urine; it was found, after operation, that there was only calculous pyelitis. Other similar errors have been recorded, and it is suggested that in such cases the mistake arose from confusion of the bacillus smegmatis and the bacillus tuberculosis. Inoculation of animals being seldom available for the diagnosis, various staining methods have been suggested. These have mostly proved unsatisfactory. Grethe has found, however, that reliable results are obtained by staining with concentrated alcoholic methylene blue. This stains the bacillus smegmatis well, and if the preparation be first stained in the ordinary manner with carbol fuchsin, tubercle bacillus, if present, is easily identified by its red color contrasting with the blue of the rest of the preparation, including the bacillus smegmatis.—*Brit. Med. Jour.*

THE BIÇYCLE AS A THERAPEUTIC AGENT.—The wheel has joined the ranks of aperient waters, infant foods and other indispensable aids to health and long life, if we may judge from an exhibit in a Broadway window. In the window is a bicycle, and below the bicycle is the certificate of an honored member of the profession in a neighboring city, whose reputation as a therapeutist ought to be very valuable to the manufacturers of the bicycle ridden and approved by him. —*Medical Record.*

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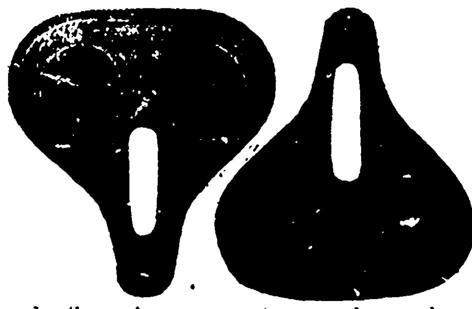

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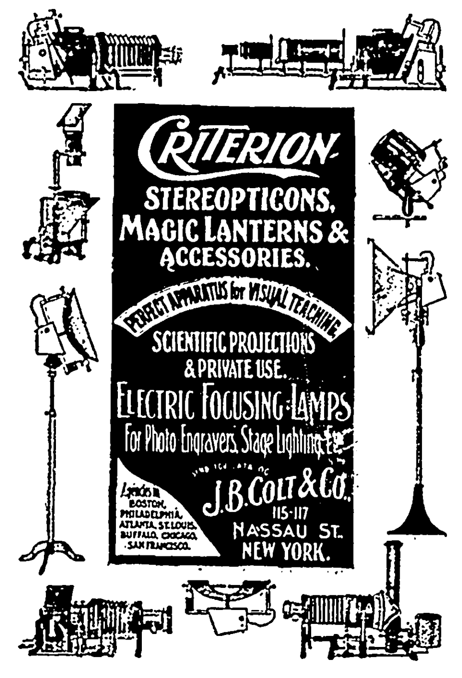

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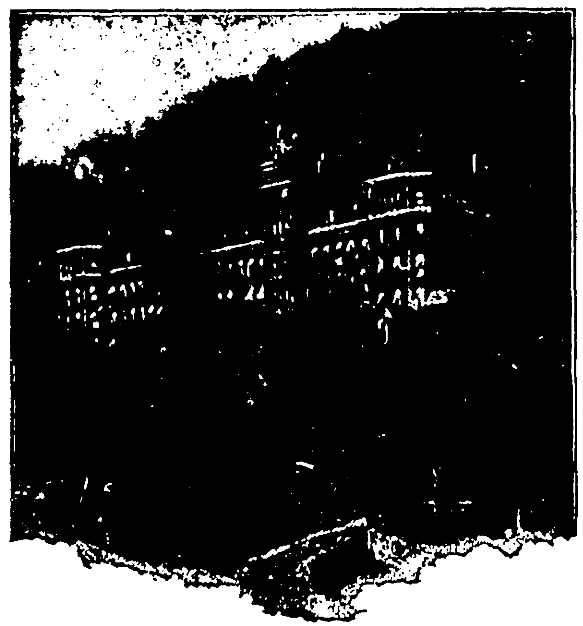

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diminution becomes persistent, and the albuminuria may even disappear. Hot-air baths are indicated in cases of subacute and chronic nephritis of the epithelial form; they are contra-indicated when there is co-existing arterio-sclerosis or any inflammatory affection of the skin, and in nervous conditions.—*Brit Med Jour.*

THE LOCAL USE OF HYDROCHLORIC ACID IN TUBERCULOUS NECROSIS OF BONE.—J. H. Waterman (*N. Y. Med. Journ.*) reports the results of a series of cases of bone necrosis of tuberculous origin which he has treated by the local use of hydrochloric acid. The acid was used in the concentrated form. The number of minims (two to six) injected in each case depended on the amount of bone diseased and on the general condition of the patient. It is preferable not to use the acid oftener than twice a week in order to obviate excessive reaction and pain. The tissues were sprayed with a four per cent. solution of cocaine or cocaine and morphine, or with chloride of ethyl, a few minutes before injecting the acid. The sinuses were thoroughly washed out with sterilized water in order to remove pus or detritus, and thus permit the acid to penetrate all the diseased bony tissue. The ordinary sterilized glass pipette was found to be the most practical means for the application of the acid. The tube was introduced to the bottom of the sinus, and the contents deposited directly upon the necrosed structure. After this, the author usually allowed a minute to elapse, next irrigated the sinus with

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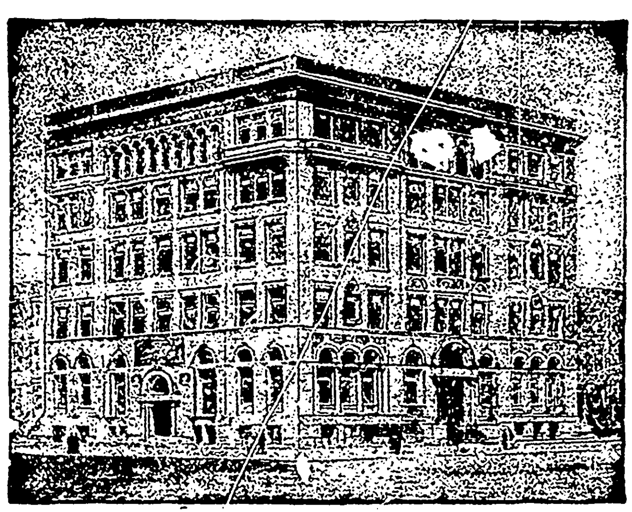

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a saturated solution of bicarbonate of sodium, and then applied a wet myrrh dressing. His object in using the latter in preference to dry dressings was because of the marked fœtor noticed in many instances after the first two or three injections. This is accounted for by the destruction of soft tissues; it was more pronounced when the patient moved, and the application was not made directly to the bone, but dropped partly on the surrounding tissues. The author gives details of eight cases in which the method was used, among which there were four "apparent cures." The conclusions which he thinks may be drawn from the cases are as follows: (1) No evil effects have resulted from its use; (2) the use of the acid in its concentrated form is preferable; (3) when the area of necrosis is extensive operative methods are advised; (4) the action of the acid is limited to the necrosed area, whereas curetting may remove both diseased and healthy bone; (5) by the disintegration of the dead bone the newly-formed tissue has a better opportunity for its more rapid development.—*Brit. Med. Jour.*

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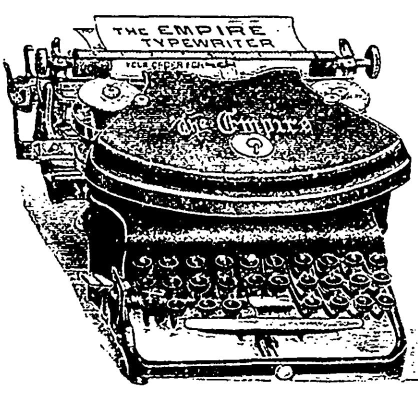
In the cauldron boil and steep;
Brain of pig and spine of dog,
Testes of lascivious hog,
Pancreas of white-faced calf
Plunge in the mysterious bath;
Double, double toil and trouble,
Fire, burn, and cauldron, bubble!
Medulla of a rabid bitch
Lain a fortnight in a ditch,
Bacillus of an anthraxed rat,
Cocci grown in putrid blood
Will make the spell both strong and good,
Double, double toil and trouble,
Fire, burn, and cauldron, bubble!

—*Doctor Jeaffreson.*



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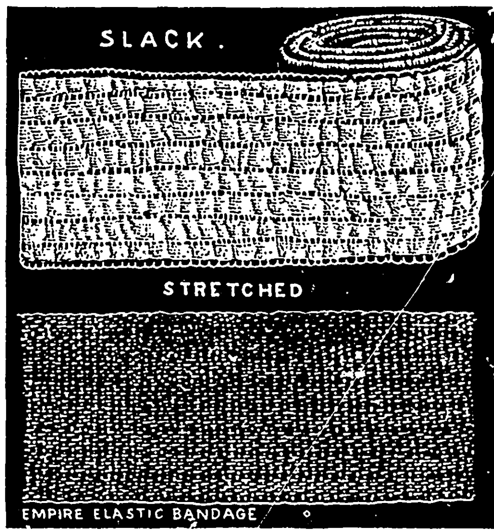

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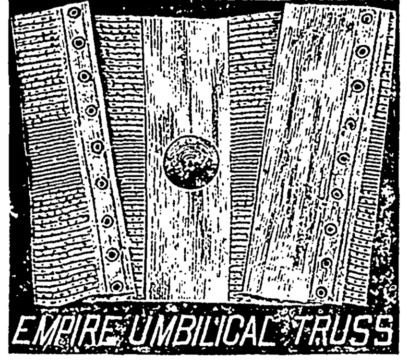

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TREATMENT OF RUPTURED URETHRA.—Cabot (*Boston Med. and Surg. Journ.*) reports five cases of ruptured urethra treated with good results by external urethrotomy and suture. The author holds that in instances of this injury immediate perineal section with suture of the urethra should be practised, as by this procedure not only are the dangers of urinary infiltration and abscess greatly lessened, but in a large proportion of cases there is a chance of preventing the formation of tight and intractable stricture. The operation, it is asserted, is not a difficult one. A median incision opens the blood cavity about the urethra. After the clots have been turned out, a sound passed along the urethra will show the anterior end. If the urethra is not fully divided the rent may be easily seen and rapidly repaired. When the division is complete the posterior end may not be so easily found, but in a fresh rupture the profuse bleeding from the bulb of the urethra will serve as a guide. If the bleeding point in the posterior part of the wound be seized with forceps and pulled forwards, the collapsed and retracted end of the urethra will be brought to view. In a case of longer standing when the bleeding has ceased, by firm pressure above the pubes the escape of urine from the proximal opening may be made to serve as a guide.—*British Medical Journal.*

POISONING BY CHLORIDE OF BARIUM.—Stern (*Zeitschr f. Med.-Beamte*) says that those engaged where this salt is employed in factories to prevent the incrustation of boilers and in laboratories as a reagent for sulphuric acid should be informed of its toxic property. A man, aged fifty-five years, drank by inadvertence some solution containing about 8.6 g.

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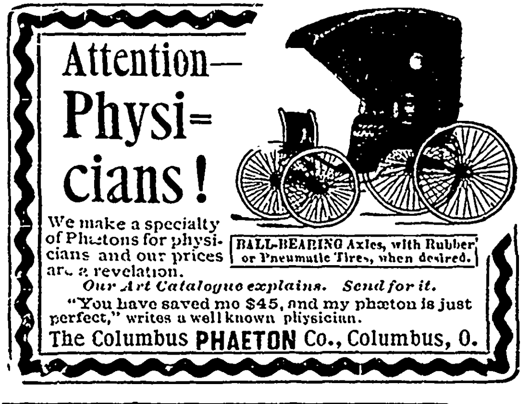

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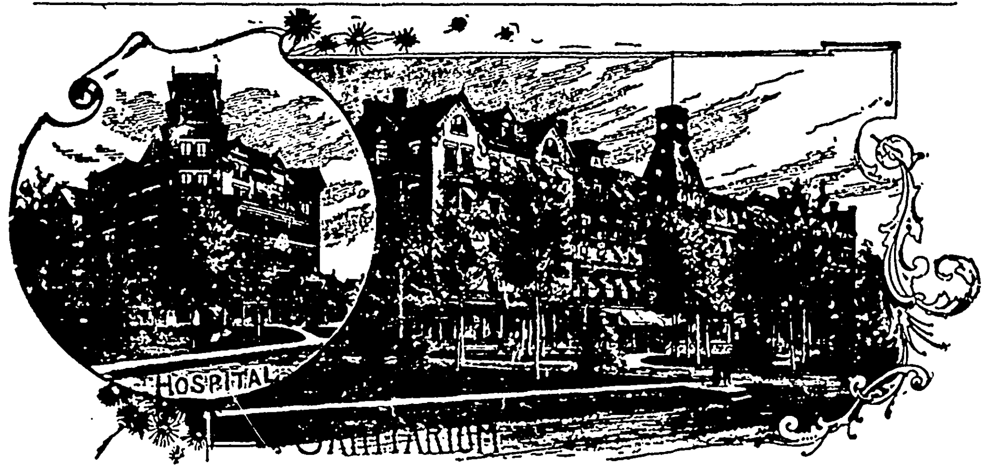

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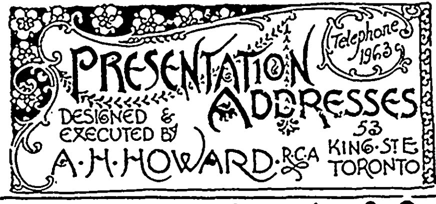

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(about 130 gr.) of the salt, and was at once affected by vomiting, diarrhœa, extreme weakness, and loss of voice; an hour and a-half afterwards he was given solution of sulphate of soda, and after three hours one of sulphate of magnesia in addition to oily emulsion and mucilaginous drinks. The first solution was partly rejected He died from collapse ten hours after taking the poison. Post mortem on the fourth day; the body was in advanced putrefaction, there were no signs of caustic action, but the fundus of the stomach, the kidneys, lungs, and vesical mucosa were much congested; about 0.158 g. of the chloride was recovered from the lungs and the heart with the blood in it.—*Brit. Med. Jour.*

FOREIGN BODIES IN THE EAR.—Preobraschensky (*Wien. klin. Rundschau*) summarizes the whole literature of the extraction of foreign bodies from the ear, and gives a statistical summary of two hundred cases. He concludes that: (1) An unskilled person should never attempt the instrumental extraction of a foreign body. (2) Foreign bodies reach the middle ear almost solely as the result of clumsy attempts at extraction. (3) The foreign body usually does less harm to the ear than its extraction by an unpractised hand. (4) The changes produced by the presence of a foreign body in the ear cannot be estimated by the length of time during which it has remained there. (5) The injection of warm water is an infallible means of securing the evacuation of any foreign body from the ear; irrigation with alcohol may be further necessary to prevent swelling of the intruder. (6) There is no indication to expedite the removal of foreign bodies which are giving rise to no troublesome symptoms. (7) In inflammatory pro-

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cesses caused by necrosis from unskilled attempts at extraction expectant treatment suffices as long as no dangerous symptoms are present. (8) The choice of an operation will depend mainly on the condition and structure of the external auditory meatus With regard to living objects insects are easily killed by water or oil, and may then be removed by injection. Larvæ, on the other hand, are only rendered more lively by water, and on injection cling firmly to the walls of the air passages. They may be killed by turpentine, ether, etc., but at the risk of setting up inflammation, A much better method is, according to the author, extraction with pincers.—*Brit. Med. Jour.*

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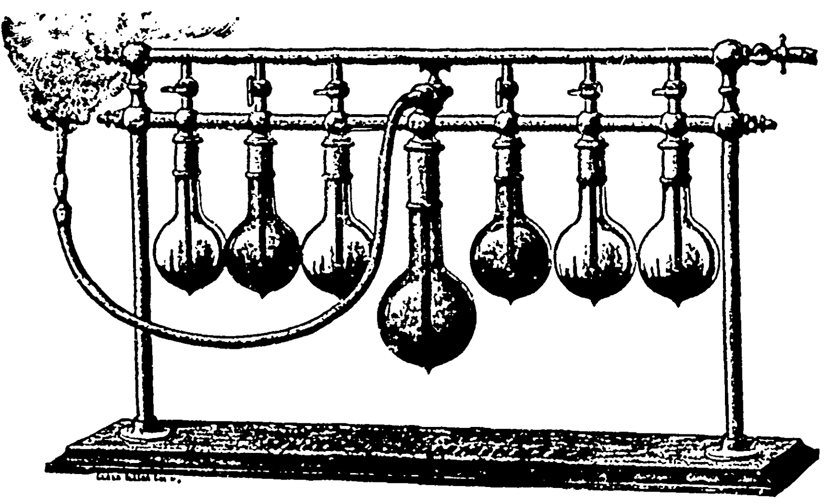

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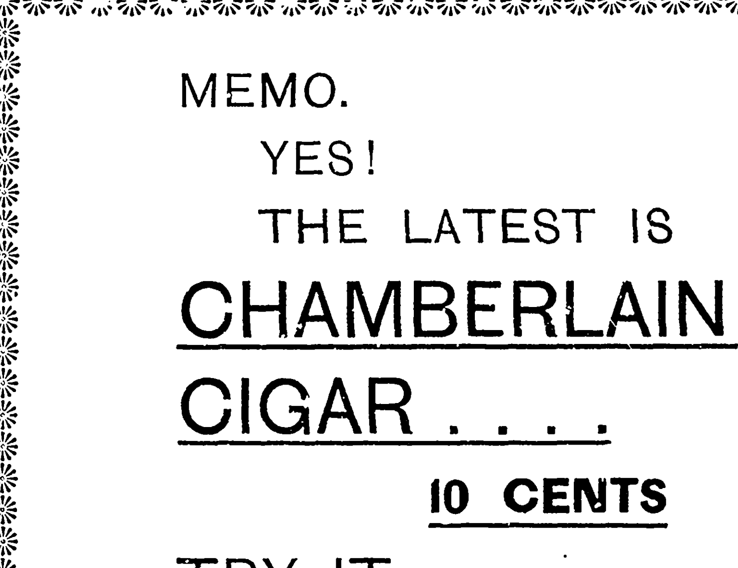

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