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Original Communications.

A CASE OF PUERPERAL FEVER, WITH REMARKS.*

BY GEORGE T. MCKEOUGH, M.D., M.R.C.S. ENG., F.O.S. LOND.,
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THE subject of my paper may seem somewhat commonplace, and yet, fortunately, owing to the fact that the etiology of puerperal fever, so called, is at present so perfectly and universally understood and appreciated, and its prophylaxis so thoroughly and conscientiously attended to, the disease is becoming more and more uncommon. It is devoutly to be hoped that it will eventually be eliminated entirely from the category of morbid processes, and known only historically as a terrible, devastating, contagious malady, which medical science of the nineteenth century quite blotted out of existence.

The following case, which I had the privilege of treating under the most favorable auspices in our public General Hospital, and the opportunity

*Read at the first meeting of the County of Kent Medical Society, January 9th, 1895.

of watching almost constantly, I thought might be of some interest to at least the younger men of our newborn society, and probably, by the discussion which I hope to elicit, refresh the memory of some of the older members.

I was called during the evening of November 13th last to see Mrs. F. D., aged 24, a healthy, well-nourished woman, who had been confined about sixty hours previously of her third child. Her attendant was an aged woman, who designated herself "an authorized midwife." The patient's face was flushed, and her countenance appeared apprehensive. She complained severely of her head and back aching. There was no tenderness over the abdomen. Her temperature was $102\frac{3}{5}^{\circ}$; pulse, 100; respiration, 24. The lochia was not as profuse as normal, and very slightly offensive. Her bowels had been thoroughly moved during the day by a dose of castor oil given in the morning. She was ordered ten grains of quinine, to be taken at once, and four grains every two hours subsequently, with half an ounce of whiskey every alternate hour, and a vaginal injection of a quart of carbolic acid lotion 1 in 40 every four hours, a new Davidson's syringe being obtained for the purpose. The following morning (November 14th) her symptoms were apparently better. She was in less distress; her temperature was $100\frac{1}{2}^{\circ}$, and pulse 94. The same treatment was continued. When I called again at 4 o'clock in the afternoon her temperature was 104° F., and all her symptoms were manifestly worse. I now felt sure that the case was one of puerperal septicæmia, and urged that the patient be at once taken to the hospital, where she would have attention that it would not be possible for her to receive at home.

Her residence was quite near, and by means of a stretcher this was soon accomplished. About one hour after her removal her temperature was $104\frac{3}{5}^{\circ}$, and pulse 110. She was in considerable discomfort and pain. The lochia was slightly offensive. Before proceeding to explore the uterus and administer an intra-uterine douche, I rendered my own hands aseptic by first scrubbing them thoroughly with soap and sterilized water, and afterwards by immersion in saturated solutions of permanganate of potash and oxalic acid, as carried out at the Johns Hopkins Hospital. My patient was then placed near the edge of the bed upon a Kelly's pad. Her thighs, pubes, and lower part of her abdomen were washed well with soap and water, and afterwards with a 1 to 2000 bichloride solution. A vaginal injection of a quart of 1 to 2000 bichloride solution was next administered, and the vagina and uterus carefully explored, the latter with the finger and dull curette. There were no lacerations or abrasions in the perinæum or vagina, and a very slight laceration of the cervix. A small quantity of débris, slightly foetid, came from the uterus. Another quart of a hot solution of corrosive sublimate, 1 to 4000, was then allowed to run slowly

into the uterus by means of a fountain syringe and a large glass uterine tube, the bag of the syringe being held about a foot above the fundus of the uterus. Care was taken that all fluid drained away from the uterus before the tube was removed. She was then placed in bed, and laid upon her side, to allow any remaining fluid in the vagina to flow away, and an aseptic pad placed over the vulva. Within fifteen minutes she had a chill, and her temperature, taken at 7 o'clock, shortly after the chill, was 107° F.; at 8 o'clock it had dropped to 104° F.; at 10 o'clock it was 101° F.; and at eleven it was normal. The temperature remained normal until noon the following day (November 15th). While the temperature was down she expressed herself as feeling well and comfortable. Quinine and stimulants were continued. Ergotin pills and the fluid extract of ergot were both tried, but, not agreeing with the stomach, had to be discontinued, but a hypodermic preparation was used occasionally for several days.

About noon of November 15th, the third day of her illness, the temperature, which had been normal for over twelve hours, began to rise again, and rapidly went up, until at 3 o'clock it was 104° F., and her pulse 120. Another intra-uterine douche was then used; no chill followed, but the temperature continued to rise until 5 o'clock, when it was registered 105° F. It then gradually subsided, and remained from 101° F. to 102° F. during the night and following day (November 16th), the fourth day of her illness, until the evening, when it gradually rose, and at 8 o'clock registered 103° F. A uterine douche was then used, the same precautions being taken as at the first. There was no chill following the administration of this douche, but the temperature again gradually rose to 104° F. an hour afterwards, and then slowly dropped to 101° F. by the next morning, November 17th, the fifth day of her illness. Hoping to prevent a further rise, and probably to still lower the temperature, an intra-uterine douche was again administered.

The temperature did fall to about 100° F., and remained near that point during the day and following night. On the morning of November 18th, the sixth day of her illness, the temperature was normal. When the intra-uterine douche was not used antiseptic vaginal injections were administered every four hours. The patient's bowels were kept freely open, usually by saline cathartics. Quinine, iron, and stimulants were given freely. Her diet was limited to milk, which she took freely. When her temperature was normal, or nearly so, she felt, to use her own words, "splendid," but as soon as her temperature rose she became anxious, asked frequently "if we thought she would get well"; her limbs slightly, but chiefly her head and back, ached. She was restless, and seemed in great discomfort.

On the evening of November 18th (the sixth day), her temperature, which had been nearly normal all day, rapidly went up to 104° F., when an intra-uterine douche was again used. During the night a uterine douche was used every four or six hours, but the temperature remained from 104° F. to 105° F., and the pulse ranged from 124 to 130. Each time the douche was used a small quantity of foetid discharge was washed away. An iodoform suppository was gently pushed into the uterus several times after the douche, and on one or two occasions I swabbed the interior of the uterus with Churchill's tincture of iodine. The next morning, November 19th (the seventh day), the temperature still registered 104° F., pulse 130; her distress and sense of impending danger very great, and for the first time there was some abdominal tenderness. After consulting with my partner, Dr. T. K. Holmes, we determined to use the cold bath. The bath tub used is one designed by the janitor of our public General Hospital. It has a perforated false bottom, which, by means of a crank, can be lowered or elevated at will. It also has a shelf which can be extended to the edge of the bed or pushed under the bed clothes. It is a very easy matter, the shelf being extended, the false bottom elevated to the top of the tub, to slide the patient on to the bath and slowly and quietly lower her into the water. The temperature of the water used was 75° F., and she remained in the bath for fifteen minutes, when her temperature fell to 101° F. After the sense of cold and shivering incident upon the immersion passed away, she expressed herself as feeling much relieved, complained of less pain, the tenderness left the abdomen, and her intellect seemed clearer. Besides the reduction of temperature, the pulse fell from 138 to 120, and she soon fell into a peaceful sleep. The temperature fluctuated during the day between $100\frac{2}{3}^{\circ}$ and $102\frac{2}{3}^{\circ}$, running up suddenly at 8 o'clock in the evening to $104\frac{2}{3}^{\circ}$, when the nurse again gave her a fifteen-minute bath, which had the same desirable effect as the first immersion.

During the two following days, Nov. 20th and 21st (the eighth and ninth days) an intra-uterine douche was given every six hours. I substituted for the 1 to 4000 or 6000 corrosive sublimate solution, which I used at first, a 2 per cent. carbolic acid lotion, fearing some ill effect from the mercurial solution if I persisted in its use. With every douche a small quantity of slightly foetid discharge was expelled. The uterus was freely movable, without any pain or discomfort, and I could easily satisfy myself that it was becoming smaller. Once or twice I used Goodell's dilator, in order to allow of the easy passage of the glass irrigating tube and free drainage. Quinine, iron, and stimulants were given freely. Her stomach bore everything well, and only occasionally, when her temperature was high, did she vomit. There were no symptoms of peritonitis or other

secondary inflammatory processes, but the temperature still varied from 100° F. to 102° F., and the pulse from 100 to 110.

On the morning of November 22nd (the tenth day) the temperature was about normal, but during the afternoon it again rose, notwithstanding the regular use of the intra-uterine douche, to 105° F. at 4 o'clock. She was then given a twenty-minutes' bath, and at 5 o'clock her temperature was 100 $\frac{4}{5}$ °. It gradually rose again, and at 8 o'clock it was 104 $\frac{3}{5}$ °, when she was put into the bath for thirty minutes. At 9 o'clock her temperature was 99 $\frac{3}{5}$ °. The intra-uterine douche was persisted in, being administered every four or six hours.

The following morning at 8 o'clock the temperature was 100° F. It remained under a hundred, fluctuating for a degree or two for the next two days. The douche was continued for two days more and then stopped, the temperature remaining normal. The subsequent progress of the case was uneventful and satisfactory. She was allowed to get up on the 30th of November, and was discharged on the 8th of December.

Remarks. Before exploring the uterus, it was difficult to state whether the poisoning was due to auto- or hetero-infection, or both. From the small quantity of debris that was removed from the uterus, I concluded that it was due to the latter.

The principal indications in the treatment of puerperal septicæmia are, first, to check the absorption of any poison; and, secondly, to assist in eliminating that which has already been absorbed. Puerperal septicæmia means the presence of pyogenic organisms in the genital tract, and to combat this disease successfully they must be attacked there. This is accomplished by means of vaginal and intra-uterine anti-septic injections. The intra-uterine douches should be avoided whenever it is safe to do so, but in most cases of puerperal infection they are imperative, and their application should not be delayed too long. The chill that occasionally follows, although alarming to the patient and friends, should not cause any anxiety to the physician. It is usually followed by a sudden rise of temperature, which, however, falls as suddenly. It is well, I think, to caution the patient and friends as to the possibility of a chill coming on, which, if anticipated, will allay their apprehensions somewhat if it should occur. It may frequently be avoided by using the douche slowly and carefully, causing as little hæmorrhage as possible, and draining away all fluid from the uterus.

In other instances I have had slight convulsions follow, and on one occasion, in which Dr. Duncan was present and assisting, the patient became seriously collapsed and unconscious, with a weak, rapid, irregular pulse, and for a time her condition was quite critical, but she soon rallied and recovered without any subsequent untoward symptoms.

I do not, therefore look upon the administration of a uterine douche

as a trivial affair, but, on the other hand, as a procedure which should be carried out with great care and discrimination. In this case, notwithstanding the curetting, the careful and assiduous use of the uterine douche, and the use of the ordinary means to conserve the energy of the vital processes and assist in getting rid of the absorbed poison, my patient's condition was not improving, was apparently becoming worse, and was certainly quite serious. Some authorities recommend phenacetine and the other coal-tar preparations in persisting fever of puerperal origin, but my own experience and observations with them has been very unsatisfactory and delusive, and I have long since discarded their use in infectious fevers of any duration. Some leading authors condemn their use very strongly. Dr. Hale White,* who opened an interesting discussion on pyrexia at the last annual meeting of the British Medical Association, stated "that the practice of giving acetanilid and its allied preparations for hyperpyrexia and ordinary cases of pyrexia is pernicious and unscientific." Dr. Barr, who followed in the same discussion, stated "that while these antipyretics diminish the production of heat and increase its dissipation, they have no effect whatever on the fever poison, except to permit it to work its ravages under conditions of lowered vitality. Their use in the continued fevers is about as rational as it would be to quiet a patient from delirium tremens by knocking him down with a blow on the head."

Broadbent,† in the last Cavendish lecture, states "that in typhoid fever they have done positive harm; they not only knock down the temperature, but the patient also, sometimes fatally." Besides, it has been shown by Roque and Weil ‡ that, without preventing the formation of toxins in the system, they arrest their elimination in the urine.

On the other hand, I have never observed anything but benefit follow the use of cold sponging or the cold bath in typhoid fever, pneumonia, scarlet fever, or other infectious fever.

Dr. T. K. Holmes, at the International Medical Congress at Philadelphia in 1876, read a paper on eclampsia in children accompanied with fever, and advocated the use of the cold bath. Both before and since he has persistently practised, taught, and advocated the benefit of the application of cold water to the surface of the body in hyperpyrexia and ordinary pyrexia of typhoid fever, pneumonia, acute bronchitis of children, scarlet fever, and other infectious fevers, and it must be gratifying to him to know that the profession is looking upon the procedure yearly with more and more favor.

The statistics of Brand, who systematized the bath treatment of typhoid fever, are well known, reducing the mortality from 25 per cent. to

* *British Medical Journal*, November 17, 1894.

† *Lancet*, Aug. 24, 1894.

‡ *Revue de Médecine*, Sept

9 per cent. Prof. Osler, of the Johns Hopkins Hospital, has thoroughly carried out the Brand system, reducing the mortality in his last eighty published cases to 6.5 per cent.* Dr. Broadbent, one of the most conservative of English physicians has recently † stated that the most efficacious means of controlling the heat of fever is the application of water to the surface of the body, and when the bath treatment has been systematically tried the mortality of typhoid fever has been considerably reduced.

Hale White‡ thinks that cold sponging or the cold bath should not be regarded simply as an antipyretic, but as acting, possibly by aiding the excretion of toxins, as a direct specific in fever, which would explain the fact that not only the temperature is lowered, but the patient's whole condition is improved, and the liability to complications diminished. Besides the increasing of urine toxicity—which is diminished in fever—to normal or double the normal, the experiments of Winternitz, which have been verified to a certain extent by Thayer, of Baltimore,§ show that the number of phagocytes is much increased, in some instances doubled, after a bath. He believes that this increased number of phagocytes exerts a destructive influence upon micro-organisms which have obtained entrance into the circulation, which may account in some degree for the beneficial influence of cold in the treatment of various infectious diseases.

Dr. T. K. Holmes|| has published a case of scarlatina following pregnancy, in which the temperature on the fourth day after confinement was 106° F., pulse 160, the patient semi-comatose and breathing stertorously, in which the application of cold had a most remarkable effect, and eventually saving the patient's life when her condition seemed almost hopeless. It was the remembrance of this patient that suggested to my mind the somewhat radical measure of the cold bath in the case just recorded, one of the most stubborn I have ever had to contend with, and which had such a salutary influence and apparently quite altered the aspect and prognosis of the case.

I do not wish it to be understood that I would advocate the use of the cold bath in every case of puerperal septicæmia, or that our chief efforts should not be directed to the cause of the pyrexia in the genital tract. Each case must be treated on its merits; but when septicæmia exists, and treatment directed towards preventing the absorption of the pyrogenic organisms fails to lessen the temperature and allay alarming symptoms, we have in the cold bath or cold sponging in puerperal septicæmia, as in other infectious fevers, a valuable aid, not only in relieving distressing symptoms, but in restoring our patient to health.

* *British Medical Journal*, Nov. 17, 1894.

† *Lancet*, Aug. 15, 1894.

‡ *British Medical Journal*, November, 1894.

§ *Johns Hopkins Hospital Bulletin*, April, 1893.

|| *Ontario Medical Journal*, November, 1893.

APPENDIX VERMIFORMIS.*

BY J. CAVEN, M.D., AND W. BARNHART, M.D.,
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OUR object in this short paper is to draw the society's attention to certain points connected with the anatomy and pathology of the appendix vermiformis, and thereby to elicit discussion which may be of practical benefit to all of us. We propose at some future date to return to the subject, when our personal observations are more numerous than now; meantime, we may say that whilst we have made free use of all literature accessible to us that seemed of value, yet we profess to have based these notes chiefly on personal observation of a considerable number of cases.

Perhaps we cannot do better than begin with the description of the normal appendix given by Gray in his text-book on anatomy—a well-recognized authority: "Attached to the lower and back part of the cæcum is the appendix vermiformis, a long, narrow, worm-shaped tube, the rudiment of the lengthened cæcum found in all the mammalia except some of the higher apes and the wombat, in whom an appendix exists. The appendix varies from three to six inches in length, its average diameter being about equal to that of a goose quill. It is usually directed upwards and inwards behind the cæcum, coiled upon itself, and terminates in a blunt point; being retained in its position by a fold of peritoneum which sometimes forms a mesentery for it. Its canal is small, and communicates with the cæcum by an orifice, which is sometimes guarded with an incomplete valve. Its coats are thick, and its mucosa furnished with a large number of solitary glands."

From reading the above one would hardly infer that this little organ varied so greatly in position, length, and relations generally, as investigation shows that it does. There is no structure of the body that one can be less certain of finding "at home" than the appendix. Let us refer to another authority, Clado, whose work is recent and exhaustive. Clado states that the appendix is kept in place by two folds of peritoneum. These are (*a*) a meso-appendix attached to the iliac fossa, and (*b*) a fold perpendicular to the first, and attached to the posterior part of the ileum.

*Read before the Toronto Pathological Society.

In a general way this is correct, so far as we have seen, but there is a considerable variation with regard to length, position, and attachments of these folds. Rolleston says that the mesentery of the appendix usually extends only along about *one-half* the length of the tube. Our experience is quite different. So far as we have seen, it runs nearly, or quite, to the tip in all cases. Kelynack agrees with this. Its shape is commonly triangular, but occasionally it forms a narrow band of even width from end to end. Gray's statement, as quoted above, is that a mesentery is *sometimes* present; we have *always* found it. In females, a double fold of peritoneum runs from the root of the appendix to the ovarian ligament. This fold might easily direct pus forming around the appendix into the broad ligament, and so give rise to difficulty in diagnosis. We have also found a corresponding fold from the colon on the left side.

Clado speaks of a lymph gland as lying between the ileum and appendix. It is difficult to demonstrate when undiseased. In tuberculosis, however, it, when affected, stands out prominently. The lymphatics of the appendix empty into it.

The peritoneum, together with the colon, ileum, cæcum, and appendix, form a series of so-called pouches or fossæ, which vary in number in different cases; being in one case easily demonstrable, in another not to be made out as pouches. These are, according to Rolleston, ileo-colic in the angle formed by junction of ileum with colon; ileo-cæcal superior and ileo-cæcal inferior, formed by junction of ileum and cæcum together with the mesentery of the appendix; sub-cæcal, running upwards behind the cæcum. Anatomically, these pouches are supposed to be important, since they afford an opportunity for hernia of the appendix into their cavities. Rolleston presents a drawing, showing these pouches and their relations. In our experience they have been so often wanting, or of so little depth, that we cannot profess to consider them as of great consequence. Kelynack speaks of a pouch as occurring sometimes on the right side of the cæcum, and says that the appendix may lodge in it. The relationship of the appendix vermiformis with the long cæcum of some forms is much better seen in the human *fœtus* than in the *adult*. The adult position of junction is distinctly behind the cæcum, whereas in the *fœtus* it is distinctly subcæcal and terminal. This terminal position is found in quite a percentage of cases in the adult, the cause of its persistence being unknown. Its great length in these cases is noteworthy. In speaking of variations of position, nothing further will be said of this position.

Variations of position. Variations in position of the appendix are very common, and may be of two quite distinct varieties (Kelynack). They may be (a) Normal variations, *i.e.*, not due to disease; (b) abnormal variations, *i.e.*, due to disease.

Normal variations. These are numerous, and so common as to make one hesitate in pronouncing absolutely, without a very large collection of cases, as to which is *the* position.

(1) Appendix hangs straight down over the pelvic brim ; quite free ; appendix usually long and mesentery narrow. This is a common position.

(2) Appendix lies behind cæcum, and turns up and inward towards the median line ; the tip either hangs down or "returns," according to length and attachment of mesentery ; mesentery may be attached to post wall through the whole length, or only through part of its length. Many accept this as the normal position.

(3) Appendix turns out to right side, and runs up behind or to outer side of cæcum and colon. It may reach the under surface of the liver ; in one case recorded by MacCallum, of London, its tip adhered to the diaphragm, and an abscess forming in it between liver and diaphragm opened through the latter, and was evacuated by way of the air passages. We have found one case seven and a half inches long in which the under surface of the liver was reached.

(4) Appendix hangs below the cæcum, and is turned either in or out ; coiled or bent at the acute angle ; not hanging over the pelvic brim.

(5) Appendix runs directly across the sacrum (Kelynack).

(6) Appendix runs upwards and inwards towards the median line, but is covered over by a short length of ileum, with its mesentery. In these cases the last four or six inches of the ileum are held down to the pelvic brim by a fold of peritoneum, and thus its mobility is lost, and a very definite pouch formed. We have seen this condition but twice, and both times in the last twelve post-mortems.

(7) Appendix lies in one of the pericæcal pouches.

Abnormal variations. Such variations are due nearly always to peritonitis, and Kelynack thinks that ante-natal peritonitis should be taken into account, as well as post-natal.

(1) Appendix adheres to cæcum, or cæcum and colon. The adhesion may be throughout its whole length or partial. R. F. Morris speaks of a case in which the tip only became adherent, and ulceration occurred into the cæcum, thus establishing a loop.

(2) Appendix adheres to ileum.

(3) Appendix adheres to rectum.

(4) Appendix adheres to bladder, uterus, or ovary. We have met with one case in which the ovary and appendix were adherent as a result of septic metritis with peritonitis. The affection of the appendix was so marked as to raise the question of the seat of origin of the trouble. Was the appendix the cause of peritonitis, or peritonitis the cause of appendicitis ?

- (5) Appendix adheres to iliac fossa.
- (6) Appendix adheres to omentum.
- (7) Appendix adheres to the anterior abdominal wall.

(8) Occasionally the cæcum and appendix are found high up in the cavity lying over the kidneys, or just below the liver. Rolleston thinks this to be a *developmental* fault, the cæcum having not descended from its foetal position. Kelynack, on the other hand, favors the idea of an *early peritonitis* anchoring it, as it were. In the early foetal position the appendix lies to the right or outer side of the cæcum, and is dragged into its normal adult position by the descending cæcum and ileum, a rotation of the large gut occurring as it descends. Incomplete rotation may account for those cases in which the appendix lies to the outer side of the cæcum, although no signs of disease are present (No. 3 of "Normal Variations").

The records of some writers show that in a certain number of cases the appendix is extraperitoneally placed. One gives about thirty-nine per cent. of cases as the proportion. We have not yet found what we could justly term an extraperitoneal appendix. It has always been distinctly inside the cavity.

The structure of the appendix vermiformis is grossly the same as that of the intestines, showing serous, muscular, submucous and mucous coats. The marked peculiarity is the large amount of lymphadenoid tissue present in the mucosa and beneath it. Bland Sutton compares it on this account to the tonsil, using the term "abdominal tonsil," and remarks that such tissue is always peculiarly open to infection, especially in the young. Its length varies considerably, from one-half inch to nine inches. Kelynack gives, as his average, three and one-half inches; Treves, average four inches, limits one to six inches; Fitz says his longest was "nearly six inches." Our own measurements show an average of 3.835 inches.

At the opening into the cæcum is often seen a small fold of mucosa, known as the valve of Gerlach. This is, at most, a very imperfect valve, and probably has no such function.

A perfect lumen is generally seen in the appendix, varying considerably in diameter in different cases, and modified greatly by circumstances, *e.g.*, cicatrization, at one point giving rise to dilatation, at another, etc. Rolleston found one hundred and eighty-three out of two hundred and thirteen pervious throughout; in sixteen, partial obliteration and, in four, complete obliteration. Fitz, on the other hand, says that more or less obliteration is common; we have not found it so. The seat and length of obliteration may vary greatly, and the results will vary also. A contracted outlet is thought by some to be the most dangerous change

of calibre that can occur; we cannot see why, since intra-appendical accumulation may happen, no matter where contraction may be found.

Treves makes the statement that the appendix is frequently absent. His words are: "It is quite common to find, in post-mortem subjects, that the appendix vermiformis is wanting." This is, apparently, a great exaggeration. Cases have been reported; e.g., Bland Sutton reports one in a foetus. In many cases careful examination is necessary to find the organ, but we have never come across one of complete absence. Kely-nack, in a very large experience, has always been able to find it, except where disease had caused its removal. If inspection of the cæcum from the inside were also undertaken, probably absence would not be spoken of as quite common.

Contents. Normally, there is more or less mucus present when the appendix is opened. Clado says fæcal matter is *never* present in a healthy appendix, but this does not seem to us to be correct. Semi-fluid fæcal matter is not infrequently seen, with no visible changes. In forty cases we found six fæcal concretions of varying consistency, with no signs of damage.

A series of investigations has shown that the bacillus coli communis is frequently found in health; Hodenpyl found in all of five cases a pure culture. We may apparently regard it as a normal inhabitant. It is said never to be found till after birth, and not till the infant has been nursed.

Concretions. Price records sixty-three concretions found in one hundred and forty-six cases. Fitz collects three hundred and twenty-one cases of inflammation with perforation, and in these fifty per cent. had fæcal concretions and twelve per cent. foreign bodies. He believes that careful examination would show a much greater percentage of concretions. Foreign bodies, such as fruit seeds, shot, etc., are much spoken of and but very rarely seen, a mistake very commonly made being the taking of concretions, lime-impregnated or inspissated, for extraneous matter. We show you to-night a specimen of appendix containing a rare form of foreign body, viz., a pin. This is the only true foreign body we have met in our sections.

Appendicitis. The causes, both predisposing and exciting, are multiple. Morris gives, as one great predisposing cause, the fact that in the appendix we have a soft, elastic, mucous tube lying within a relatively inelastic and firm peritoneal and muscular tube; anything that induces swelling of the mucosa may seriously damage it, even causing necrosis. The position of the appendix may also have something to do with its liability; not so much its dependent position as its connection with a blind gut.

Probably in all cases germ invasion is an essential part of the process. It is commonly supposed that foreign bodies, concretions, violence (exter-

nal), constipation, etc., may act as causes ; apparently, these are but secondary aids. It has been said that pressure of concretions causes necrosis, and so excites inflammation with perforation. It is doubtful whether this is possible. There is always an acute inflammation when perforation occurs, and much greater pressure than that of a concretion may be long continued without any such result. Moreover, perforation may happen without the presence of any concretion. No doubt foreign bodies, concretions, etc., may modify tissue to such an extent as to permit of the lodgment of organisms.

Amongst the organisms most commonly found as occurring in connection with appendicitis are the tubercle bacillus, the typhoid bacillus, and the bacillus coli communis.

The germ most frequently found, both in peri-appendical and general peritoneal inflammation, is the bacillus coli communis ; *e.g.*, Hodenpyl records it as found in thirty-four out of thirty-five cases ; a streptococcus alone in one case ; bacillus pyogenes foetidus along with bacillus coli communis in one case ; streptococcus pyogenes with bacillus coli communis in one case. In ten cases the contents of the normal abdominal cavity gave no cultures ; in one, bacillus coli communis.

To secure a negative result, the examination must be made soon after death, since the non-resistant dead tissues permit the easy passage of micro-organisms through the bowel walls.

DISEASES OF THE ORAL MUCOUS MEMBRANE.*

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

TORONTO.

THE subject is an important one, not only to dentists, but to the general public. One of Toronto's pathologists remarked to me, when he heard I was going to talk to dentists on the subject, "For goodness' sake! tell them to keep their instruments clean; it is simply criminal the way they jab unclean instruments from the mouth of one patient to that of another."

The modern and better class of dentist keeps his instruments clean, though rarely, perhaps, aseptic. The uncleanly ones are, however, too common, and, more than that, few dentists can tell the mucous patch of syphilis from an ordinary ulcer. From what I can learn, there has never yet been a clinical demonstration of syphilis of the mouth exhibited to the students in the Dental College in Toronto. My opinion is that dentists should be more practically educated in reference to the diseases of the mouth, so that, in all cases where there is a possibility of contagion, they will not only have their instruments properly cleansed, but also rendered thoroughly aseptic.

The ordinary medical practitioner, too, is all too ignorant frequently of oral diseases, and if dentists were better educated in this respect they would be often invaluable in consultation with their medical confrères, and especially in the country.

The mouth serves as a breeding place for the specific germs of many diseases. Among these are diphtheria, syphilis, tuberculosis, pneumonia, and typhus.

Diphtheria bacilli have been found in the saliva of healthy people, thus proving that the saliva is not inimical to the life of this dread germ. Mild and even advanced cases of diphtheria, and the various forms of tonsillitis, are not infrequently found in patients occupying the dentist's chair.

The pneumonia coccus is also found in the mouths of healthy people, while a primary tuberculosis of the mouth seems to indicate that the tubercle bacillus occasionally finds a favorable abode in the fluids of the mouth.

*Read before the Toronto Dental Society.

The mouths of consumptives, too, who are expectorating much, are peculiarly prone to contain immense numbers of these germs, and dental instruments may easily be the means of transferring the germs to the mouths of healthy persons.

Microscopical examinations which I have made from the sputa which has adhered to the teeth in consumptive patients has demonstrated the presence of thousands, and in one case millions, of tubercle bacilli.

In regard to syphilis, leaving out sexual intercourse, the great majority of infections from this disease take place from the oral cavity. The oral fluids seem not only to be non-destructive to the syphilitic germs, but to serve as carriers of the poison.

Many cases are recorded of syphilis being transmitted by dental instruments. L. Duncan Bulkley (on "The Dangers arising from Syphilis in the Practice of Dentistry") has enumerated many such cases. Dalles, Otis, Lancereaux, Giovanni, and others have recorded cases where chancre of the lip occurred two or three weeks after dental operations. Lydston, Roddick, and Parker have recorded cases of syphilis following tooth extraction.

Dentists themselves have been inoculated by scratching their fingers on a patient's tooth. Bulkley relates thirty cases where syphilis was caused by tooth-wounds, by bites and blows on the teeth. Veritable epidemics have occurred by infection with saliva of syphilitic patients. In several cases recorded a large number of persons have been inoculated by tattooing, the instrument used having been moistened with the saliva of a syphilitic person.

In view of these facts, it is of the utmost importance that dentists should exercise greater cleanliness in their instruments, and should be more practically experienced in reference to the manifestations of disease in the human mouth.

Indeed, so important did the subject seem that a few years ago the Stomatological Club* of Buffalo was formed. It is a society composed of dentists and physicians, organized specially for studying the pathology of the oral cavity, comparative dental anatomy, oral bacteriology, and kindred subjects. Dr. W. C. Barrett was its first president.

And, now, let us consider some of the more common diseases of the oral mucous membrane :

Stomatitis, inflammation of the mouth, is due to mechanical, chemical, and bacterial causes. As mechanical causes are the sharp edges of broken and carious teeth, and ill-fitting dentures, etc., chemical irritation may come from high-spiced foods, alcoholics, tobacco-chewing, and excessive smoking, or from acids or alkalies, etc., taken into the mouth. Mercurial

**Dental Cosmos*, 1891, page 303.

stomatitis may occur from the use or abuse of mercury in medicine. Infection of various kinds plays an important part. There is usually redness, swelling, and increased secretion. Here and there little vesicles appear, which burst and leave superficial ulcers. It may be acute or chronic.

The treatment is absolute cleanliness of mouth, etc. Listerine, one in four, one or two teaspoonfuls of a 1 per cent. solution of permanganate of potash to a glass of water, a 2 per cent. solution of chlorate of potash, or a 1 or 2 per cent. solution of carbolic acid, are useful mouth washes.

If there are superficial ulcers, they are touched with strong carbolic or lunar caustic. In this way healing will be aided.

Ulcerative stomatitis, as the name signifies, is a disease of the oral mucous membrane, with superficial necrosis, and the consequent formation of ulcers. The disease is frequently epidemic in jails and other public institutions.

The disease usually attacks the gums of the lower jaw first, gradually spreading thence to neighboring portions of the lips and cheeks. The tongue and palate are generally not much affected, though often the seat of a simple catarrhal inflammation. The gums are swollen, spongy, and red, and bleed easily. The breath is very offensive. It is very difficult to take nourishment. There may be marked constitutional symptoms. There may be moderate elevations of temperature, particularly in children. If not treated, disease sometimes becomes chronic.

The treatment is similar to simple stomatitis, and consists of antiseptic mouth washes, etc. It is important to administer laxatives if necessary, and to keep the stomach in good, healthy condition. Brilliant results can be often obtained by judicious treatment.

Aphthæ, or Aphthous stomatitis, is a name given by physicians to several distinct things. Many doctors and dentists call every disease aphthæ in which there are white spots on the buccal mucous membrane. It is thus frequently confounded with thrush.

The genuine aphthæ are roundish spots upon the mucous membrane, grayish white, and of small size, unless made larger by the confluence of several into one another. They usually have a narrow red areola, and are most numerous on the edges and dorsum of the tongue, and on the frænum, but they also occur on the lips and cheeks. In addition to the genuine aphthæ, there are almost always the signs of a common stomatitis.

The disease occurs chiefly in children, and at the time of the first dentition. The disease is not rare in adults. Many individuals seem especially liable to it, and very frequently have little white, and often very painful, spots here and there on the tongue, or elsewhere in the mouth.

The treatment is antiseptic washes and local application to the ulcers

of carbolic acid, nitrate of silver, or nitric acid. Care should be taken in making strong applications only to touch the diseased part.

Thrush is a disease principally of children, and is produced by a bud-fungus, the *saccharomyces albicans*. In adults it occurs, with rare exceptions, only after exhausting diseases.

The infection is caused by inhalation of germs from the air, or more commonly by contact with affected objects. Uncleanly sucking bottles afford an excellent medium for the development of bud-fungi, which are rather widely distributed. The growth of the fungus is, as a rule, restricted to the mucous membrane.

In an acute case of thrush the mouth is hot, and the patient feverish. The inflamed surface presents numerous characteristic whitish patches, which often coalesce. If the growth is abundant, it is easy to scrape off the upper layers, and make the diagnosis by aid of a microscope.

The treatment is chiefly prophylactic—good air, food and cleanliness in nursing, and in mouth and feeding bottle.

The bud-fungi do not flourish in an alkaline media, and wiping the mouth in a cloth dipped in an 8 or 10 per cent. solution of bicarbonate of soda is all that is necessary in mild cases. A solution of borax 1 in 30 is also good. Honey should not be added to the borax, as is often unwisely done.

Acute glossitis, or inflammation of the tongue, is generally due to the sting of a bee or a wasp, or a severe burn or cauterization. A severe case in my own practice occurred this summer. A boy was eating bread and jam, and in doing so a wasp, which was also indulging in the jam, was taken into the mouth. A severe sting in the tongue resulted. In a few minutes the tongue was enormously swollen, and protruded from the mouth; the entire cavity of the mouth was filled with the swollen mass. The pain, too, was intense, and much anxiety was entertained by his father lest the larynx should also become swollen, and fatal dyspnoea result. A 5 per cent. solution of cocaine immediately relieved the pain, and sucking of ice soon lessened the swelling.

Mucous patches in the mouth are an affection belonging to secondary syphilis. They occur generally during the middle and later period of secondary syphilis, but may occur at any time during the secondary stage. They may even occur very early, associated with the affection of the throat and other parts of the interior of the mouth, with the first outbreak of the eruption, and with the falling out of the hair.

Mucous patches are usually multiple, and generally accompanied by other signs of secondary syphilis. Occasionally, however, a single patch occurs on the border of the tongue, and for the time, at least, no other sign of syphilis is present. They may occur on the mucous membrane of

the lips, cheek, palate, tongue, and tonsils. On the tongue they may form on any part, on the dorsum, borders, tip, or under aspect; but they occur more frequently on the border than elsewhere. They may be met with at any age, for they belong to the congenital as well as to the acquired syphilis; but they are more often seen on the tongues of young adults than at any other period of life. They may be found in both sexes, but are more often observed in men than in women.

The appearance of mucous patches varies greatly. The typical mucous patch is generally rounded or oval in form, and without irregular edges. They are, however, often modified much by external irritants or rubbing against the teeth. It is sharply defined, and is generally grayish white in color. Immediately beyond the border of the patch the tissues are quite natural; there is no redness or swelling unless there is accidental inflammation. Occasionally the patches under the tip of the tongue, and in places where they are little disturbed or irritated, are warty in appearance, of a dead white color, and slightly elevated.

The patches usually begin as a small, slightly raised, white gray spot, and, as it causes no pain, is often unnoticed for some time. Several small patches may coalesce, and thus form a large, irregular patch. If untreated, they may last months, with little apparent change. The *diagnosis* is comparatively easy. To those who have seen them, the patches themselves are characteristic. In doubtful cases, the accompanying signs of syphilis are important. They may be mistaken for aphthous stomatitis, cucomata or wandering rash.

In aphthæ and mucous patches there are white patches, but the white patches of aphthæ belong almost exclusively to children, or to adults suffering from severe illness, while the white patches of syphilis occur almost exclusively in adults who are in good, or, at least, not in bad, health. The white patches of aphthæ are surrounded by bright red areolæ; those of syphilis are peculiarly free from any sign of surrounding inflammation, unless they have been irritated, or are accidentally inflamed. Aphthous ulcers are acute, mucous patches are chronic. The presence of other secondary signs of syphilis are, of course, a crucial test.

Under the heading of leucoma, leukoplakia, psoriasis, ichthyosis, tylosis, keratosis, plaques, opalines, are understood white and bluish white patches and plaques, affecting for the most part the tongue. These may be generally called under the one head *leucoma*, meaning a whiteness or white opacity of the surface of the tongue. The *smoker's patch* belongs to the same class of disease, and is probably only an early stage of these affections.

The diagnosis of mucous patch from leucoma depends partly on the difference in the color of the patches, which are not pearly like leucomatous patches, but grayish white, as if they had been painted over with a

nitrate of silver stick. Mucous patches occur more often on the borders, leucoma patches on the dorsum of the tongue ; mucous patches are much more often deeply ulcerated than leucoma patches. Leucomas, when thick and white and raised, and, therefore, more likely to be taken for mucous patches, are, as a rule, much harder and drier than mucous patches. Leucoma usually runs a very chronic course ; mucous patch a fairly acute course.

The treatment of mucous patches is local and general. The general treatment is principally mercury, in the form best adapted to the patient, together with hygienic treatment.

The local treatment is often brilliant in its results, and a ten-grain solution of chromic acid is perhaps as productive of as good results as anything. At the same time, all sources of irritation in the mouth, such as a carious tooth, etc., should be removed. Three grains of hydrargyrum cum creta twice a day is a good form for internal treatment.

Tertiary syphilitic plaques are comparatively rare, and have been little described, but are supposed to be the cause of the deep fissures and furrows one sees in old disfigured tongues, following tertiary syphilis. The diagnosis is easy, especially as there are usually other signs of syphilis. The treatment is iodide of potash, 5 or 10 grains three times a day.

Now, what are the practical deductions to be taken from the suggestions made in this paper ?

Dentists should be exceedingly careful about thorough cleanliness in their instruments, and especially forceps.

In all doubtful cases of oral disease they should refuse to perform dental operations until the mucous membrane is free from disease ; or, if operation, such as extraction, is urgent and necessary, the forceps should be carefully rendered aseptic by a 1 in 20 solution of carbolic acid after operation.

If there is a doubt about the diagnosis in oral disease, a physician should be called in consultation, or the case referred entirely to a physician for treatment. My opinion, however, is that the average dentist is just as capable—or should be just as capable, if not more so—of treating lesions of the oral mucous membrane as the average physician ; but, as a physician, you will excuse me objecting strenuously against dentists treating such cases without charging a fee when the patient can afford it. If the dentist writes a prescription, he should charge for it the same as a physician, and they lose in dignity and in professional standing with the medical fraternity by not doing so.

More attention should be given in our dental colleges to practical clinical instruction for our students in the diseases of the mouth.

There is an immense class of suitable clinical material available, and it is not very flattering to our college management that it has not been more largely utilized.

LODGMET OF A FOREIGN BODY—A PIN—IN THE APPEN-
DIX VERMIFORMIS: DEATH FROM
PYÆMIA.

BY A. MCPHEDRAN, M.D., AND J. CAVEN, M.D.,
TORONTO.

WE offer no excuse for recording the following case. Its rarity and interest seem to call for its preservation.

J.H., æt. 21, a laborer doing light work about a foundry. Was always well until November 15th, 1893, when he was seized with severe pain in the seventh intercostal space of the right side, in the nipple line, and extending backwards. He entered Toronto General Hospital on November 17th, and his condition, when first seen, was as follows: Temperature, 103° F.; there was tenderness over the seat of pain above spoken of; breathing was costal, and abdominal muscles tense. There was pain in the abdomen at three points—in the right iliac fossa, above the umbilicus, and to the left and below the umbilicus. These points were tender, especially that in the cæcal region. The abdominal pain disappeared in three or four days. On the afternoon of the 18th he had a chill, and almost daily, from that time on, for six weeks, the temperature rising sometimes to 106.40 F. Two days after admission, signs of pleurisy appeared at the seat of pain, below the nipple, and spread gradually to the fourth rib in front, being lower behind. The lower border of the liver extended nearly an inch below the costal margin. The pleura was aspirated on two different occasions, but no pus was obtained.

In December the right ankle became swollen, and some thin pus was obtained by aspiration.

During January there was little change; the temperature, however, ran a lower range, with only occasional chills. Signs of pleural exudation diminished posteriorly on the right side, and slight effusion occurred on the left.

On February 12th he coughed up six fluid ounces of offensive pus, and, after this, the temperature was slightly subnormal for a few days; urine normal, and no jaundice.

The patient continued to fail, the temperature becoming irregular.

Diarrhœa now became troublesome, and pus appeared in the urine. Death took place on March 10th, 1894.

During life the blood was examined microscopically, but no organisms of any kind could be detected.

Autopsy. The autopsy was made upon March 11th, eighteen hours after death.

Section showed a small, firm-walled abscess in the liver substance, just beneath the surface of the convexity of the right lobe; over this abscess the diaphragm and liver were firmly adherent. In the right pleura was a small pus cavity communicating, by an opening through the diaphragm, with the above-mentioned liver abscess.

The upper part of the pleural collection communicated with a bronchus in the lower border of the upper lobe of the right lung. In the liver were found several more recent abscesses, with soft, ragged walls and a very perfect reticulum of vital and necrotic tissue subdividing the larger cavities. The left pleura contained a few fluid ounces of serum, and the lobes of the left lung were adherent. Both lungs showed marked collapse.

The appendix vermiformis was the seat of old inflammation and its walls considerably thickened, the tube, as a whole, being much dilated. About its middle was a distinct cicatricial contraction, and in the dilated extremity beyond the contraction lay a large-sized common pin. The pin was bent at an obtuse angle, and its tip embedded in the appendical wall for about one-eighth of an inch. The pin is largely covered with a layer of calcareous matter laid down in a regular coat. No macroscopic recent damage to the appendix was visible; no signs of recent inflammation. The other organs exhibited nothing specially noteworthy.

This case is one of great interest for more than one reason. The finding of a foreign body in the appendix is, in our experience, a very great rarity. We have had many opportunities of examining the appendix, and never before found an undoubted foreign body.

Of course we are aware that the statement is commonly made that bodies of such a nature as date stones, grape seeds, cherry stones, apple pips, shot, and so on, are prone to make their way into the appendix. This we cannot accept. In a considerable series of cases of appendicitis with perforation, Fitz found records of the presence of foreign bodies in twelve per cent., but does not state what they were. One great difficulty in the way of free acceptance of such statistics lies in the fact that close inspection or analysis of supposed foreign bodies has, time and again, shown that lime impregnated fœcal concretions may be of a variety of different shapes, and that, as a matter of fact, they do simulate, for example, seeds of various kinds. The most frequently reported forms of

foreign bodies are just those seeds and pips that are so readily simulated. Another circumstance that seems to us to tell against the foreign body idea lies in the fact that, whilst gallstones of small size must be quite common in the cæcum, it is but seldom, if records be correct, that they are found in the appendix. Worms also are common intestinal inhabitants, and we have been able to find but three references to them as discovered in the appendix.

It is not to be wondered at if cases such as the one we report are uncommon. There are many more obstacles in the way of a pin landing in the appendix than of almost any other form of foreign body, in addition to the fact that only comparatively infrequently are these convenient little articles swallowed. The cases of which we have found records are five in number, and of these one only agrees with our case in its results and terminations.

Mestivier records a case in 1759 in the *Paris Journal of Med., Chir. and Phar.*, in which an abscess in the region of the umbilicus was traced to a large pin in the appendix. Joffroy has a case, terminating in general peritonitis and death, in the *Bull. of the Anat. Soc. of Paris*, 1869. In 1875 Legg, of St. Bart.'s Hospital, London, recorded a case in the hospital reports for that year, and in 1879 Ashby's case was noted in the *London Lancet*. The latest record is that of Bell, of Montreal, in the *Canada Medical Record* of November, 1894.

Apparently in Legg's case some doubt existed as to whether the foreign body were really a pin or not, since after the word pin in the record a question mark stands.

Ashby's case agrees with ours not only in the lodgment of the pin within the appendix, but in the resulting pyæmia with liver infection, no statement of local affection being made.

Other instances of pyæmia with liver abscess, due to ulceration of the appendix, are found on record; one by Traube in the *Deutsche Klinik* for 1859; one by Pearson in the "Transactions of the Medical Society of New Jersey" for 1871; and one by Machell, of Toronto.

Selected Articles.

HYPNOTISM IN ITS RELATIONS TO CRIMINAL JURISPRUDENCE.

BY THOMSON JAY HUDSON,

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Attorney at Law ; Author of " The Law of Psychic Phenomena " ; " Hypnotism a Universal Anæsthetic in Surgery," etc.

I HAVE been asked to pass a scientific opinion on the question whether hypnotism can be successfully employed to induce the commission of crime, and a legal opinion concerning the status of hypnotism in criminal jurisprudence. There are perhaps no two questions of more vital interest or imminent importance than these. When a confessed murderer is acquitted on the plea that he was hypnotized and compelled to commit the crime, a question is presented which is in some respects cognate to the old problem of emotional insanity. It is, however, of infinitely greater importance than the latter, for the obvious reason that emotional insanity could be made available as a defence only when it could be clearly shown that the victim had so grossly invaded the private rights of the accused as to deserve his punishment, whereas the defence which consists wholly of the allegation that some third person compelled the commission of the crime by means of hypnotism is equally open to the avenger of a grievous wrong and the coldest-blooded murderer that ever scuttled a ship or cut a throat. It is obvious that if such a defence is once admitted as an element of criminal jurisprudence, a very wide and a hitherto unexplored avenue of escape is opened to the criminal classes. Nevertheless, when a criminal is acquitted on such grounds it may be said in extenuation that the jury entertained a "reasonable doubt," or invoked the old common-law maxim that "it were better that ninety-nine guilty men should escape than that one innocent man should be put to death." But when a confessed murderer is not only acquitted of the crime, but the alleged hypnotist is convicted of murder in the first degree on the testimony alone of said murderer, the question assumes a far more serious aspect. If such a

thing can happen, no man is safe who incurs the enmity of one of the criminal classes. As the books say of the charge of rape, "It is an accusation easy to make, but difficult to disprove." In the present state of popular opinion on the subject of hypnotism, it is a charge impossible of refutation. The popular belief on the subject may be summed up in two sentences :

(1) It is the popular belief that a person may be hypnotized at a distance and against his will.

(2) It is also believed that in the hypnotic state a person is under the absolute dominion of the will of the hypnotist, and can be compelled to perform any act, however repugnant to his feelings or his conscience.

Obviously, if these two propositions are true, hypnotism has a legitimate place in criminal jurisprudence. The scientists, however, who hold that hypnotism can be employed for criminal purposes do not all agree as to the truth of the first proposition, but they sustain the second with practical unanimity. It is to this second proposition, therefore, that we must first direct our attention, for if that is found to be untrue it is unimportant whether the first is true or false.

It must be premised that the science of hypnotism is yet in its infancy. No man can safely predict its future, as to either its uses or its abuses. That it is useful when legitimately employed no one who is acquainted with the facts will deny. That it may be employed to the detriment of its votaries is a proposition that is equally true of everything in Nature. That when its laws are understood they will be found to be promotive of the highest good of the human race is a proposition sanctioned by every discovery yet made in the domain of Nature's laws.

Little as is known of the ultimate possibilities of hypnotism, there are some things about it that have been definitely ascertained, and are, broadly speaking, as well known now as they can ever be known. It is not necessary for one to be able to calculate the eclipses to enable him to know that the earth is round, or to grasp the fundamental hypothesis of gravitation. Nor is it necessary for us to know the future possibilities of hypnotism to enable us to grasp its fundamental laws, since they have been definitely formulated.

Broadly speaking, we know what hypnotism is, and we know at least one of its fundamental laws. The researches of the European scientists have definitely settled that much, and for the purposes of our present inquiry it is sufficient.

The word "hypnotism" is derived from the Greek *υπνος*, signifying "sleep." Dr. Braid, who was the originator of the term, defined it as "nervous sleep," or induced sleep.* This implied the theory, then

* *Neurypnology*, p. 13.

prevalent, that a subject must be asleep in order to exhibit the phenomena of hypnotism. Professor Liébault, of Nancy, extended the researches of Braid, and immortalized his own name by the discovery of the law of "suggestion." Professor Bernheim, a pupil of Liébault's, in conjunction with the latter, discovered that the Braidian definition was too limited in its scope to embrace all the phenomena, inasmuch as it was found that many of the distinctive results could be produced while the subject was in what Bernheim terms the "waking condition." Bernheim, therefore, defines hypnotism as "the induction of a peculiar psychical condition, which increases the susceptibility to suggestion."† This implies the theory that persons are normally susceptible to "suggestion." This conclusion, however, does not seem to be warranted, except in the sense that all are subject to the influence of others. There must be some abeyance of the objective faculties in order to produce the phenomena of suggestibility in the hypnotic sense—that is, in the sense that a suggestion can produce an hallucination. My definition of hypnotism would, therefore, substitute the word *induces* for "increases" in Bernheim's definition.

As before remarked, Professor Liébault discovered and formulated the law of suggestion. That law is now almost universally recognized by scientists throughout the civilized world as *the* potent factor in hypnotism. I say "almost," for there are still a few exceptions, consisting of a constantly diminishing number of the followers of the late Professor Charcot, who believed that hypnosis could be induced only in hysterical patients. There is one other French "scientist" who succeeds in astonishing himself and amusing the scientific world by the production of phenomena which demonstrate nothing but his own ignorance of the principle of suggestion. Then there is one English author who recently produced a universal guffaw in the scientific world by publishing an *exposé* of the Frenchman, and succeeded in astonishing all Europe and America by demonstrating the fact that he knew less about the subject than the Frenchman himself. With these unimportant exceptions the law of suggestion is universally recognized among scientists.

Formally stated, the law is this :

Persons in an hypnotic state are constantly amenable to control by suggestion.

Broadly speaking, suggestion, as the term is employed in hypnotic science, is a statement (true or false) made to an hypnotic subject. Its potency resides in the fact that the hypnotized subject unhesitatingly accepts the statement or suggestion as true, and acts accordingly. Thus, an hypnotic subject may be made to believe that he is another person, or that he is an animal, or a demon, or an angel, and he will assume the

† Suggestive Therapeutics, p. 15.

character and act the part to the life, within the limits of his physical or mental capacity. He may be made to get drunk on water by suggesting to him that it is brandy; and he may then be made sober by giving him brandy, accompanied by the suggestion that it is an antidote to the previous "stimulant."

These are the fundamental facts of hypnotism as they are recognized by the public. And it is upon these facts, thus broadly stated and superficially understood, that the conclusion has been based that hypnotism can be employed as an agent of the criminal. It is, perhaps, a natural conclusion for one who has witnessed only the common platform experiments. He sees the subject thrown into a state that is to him mysterious and inexplicable. He sees the subject in that condition become apparently under the absolute control of the operator, and dominated by the most absurd suggestions. His natural conclusion is that, if the operator chose to suggest to the subject that it was necessary for him to perpetrate a crime, he would be compelled to do so in obedience to the law of suggestion. This is the first conclusion at which the European scientists arrived. But they were not content with mere platform experiments and abstract deductions. So they instituted a series of laboratory experiments, in which criminal suggestions constituted the salient feature. Subjects were hypnotized and paper daggers were placed in their hands, and the suggestion was made that it was extremely desirable that some imaginary person, or real one for that matter, should be incontinently slaughtered. It is needless to say that the suggestion was in every instance obeyed with the greatest alacrity. It is almost superfluous to add that the experimenters, who were mostly medical gentlemen, were practically unanimous in the opinion that hypnotism was a very dangerous force in the hands of anybody but doctors.

It is my purpose in this paper to show that this view of the case is to the last degree superficial, and evinces a singular lack of appreciation of the real scope and significance of the law of suggestion. In their view of the question, suggestion would be confined to the oral declaration of the hypnotist to his subject. The truth is that the suggestions of the hypnotist constitute the least important part of the suggestions that dominate the mind of the subject.

Suggestions are divided into two classes—namely: (1) Suggestions by a second person, as by a hypnotist. (2) Auto-suggestions.

The first class is again subdivided into two classes—viz.: (1) Oral suggestions. (2) Mental suggestions.

With the latter class we shall have nothing to do, as it belongs to a higher phase of psychic phenomena than we are considering.

Auto-suggestions are subdivided into four classes, viz.: (1) Volitional auto-suggestions. (2) Suggestions of moral education and fixed prin-

ciples. (3) Instinctive auto-suggestions. (4) Suggestions of the environment.

The greater part of the above divisions and subdivisions are explained by their terms. The subdivisions of auto-suggestions, however, require elucidation. Before proceeding to do so I desire to impress a very important fact upon the mind of the reader.

It often happens in the course of experiments in hypnotism that two contrary suggestions will be made at the same time. The invariable result is that great distress of mind is inflicted on the subject, and it often results in bringing him out of the hypnotic state with a severe nervous shock. Where the latter result does not follow, the stronger suggestion necessarily prevails. The importance of this fact will become obvious as we proceed.

(1) *A volitional auto-suggestion* is one which the subject makes to himself before being hypnotized. For instance, if he anticipates the possibility that the hypnotist will place him in a ridiculous attitude, or one repugnant to his sense of propriety, he will resolve beforehand that he will not obey the suggestion. If, then, the anticipated suggestion is made by the hypnotist it will be strongly resisted, and the potency of the resistance will be in exact proportion to the subject's innate sense of dignity or propriety. If that is very strong, and the hypnotist insists upon his suggestion, the subject will be restored to his normal condition.

(2) *Suggestions of moral education and fixed principles* are of a cognate character to the foregoing. These reach the very heart of the subject under consideration. Thus, if a subject is told to do anything that is contrary to the settled principles of his life, he will resist the suggestion with all the force of his moral nature. Consequently, when an immoral or a criminal suggestion is made by a hypnotist, whether it is obeyed or not is purely a question of moral character. If the subject is strongly entrenched in moral rectitude, he will resist the suggestion; and, if the hypnotist persists, the subject will be restored to normal consciousness with a nervous shock proportioned to the infamy of the suggestion. "Strength of mind" is not a factor in the case. Strength of "will," in the ordinary acceptance of the term, has nothing to do with the result. "Will," in the psychic sense, is nothing more nor less than *desire*. Consequently, if the subject's desire to obey the dictates of conscience is stronger than his desire to obey the suggestions of the hypnotist, the auto-suggestion must prevail. In other words, there is no such thing in real life as a hypnotist having absolute control of a subject against the will of the latter.

(3) *Instinctive auto-suggestions* are those which arise from the natural desire to protect one's own life or that of his wife or children. They are by far the strongest auto-suggestions which a criminal hypnotist would

have to encounter in an effort to procure the commission of a crime by means of suggestion. It has often been said that a criminal hypnotist would have the power to induce a subject to commit suicide, or to procure an abortion, by means of suggestion. But such a use of that power is obviously out of the question when we consider the inherent strength of the instinct of self-preservation, and the potency of that subjective clinging to the life of the foetus which is the inherent attribute of every mother. Besides, the same instinct of self-preservation would constitute a potent factor in case of an attempt to instigate the commission of a murder. The subject would instinctively reason up to the consequences to himself in case of detection; and, even though his moral principles might not constitute an auto-suggestion of sufficient potency to enable him to withstand the suggestion of a criminal hypnotist, his own instinct of self-preservation would more than likely have that effect.

(4) *Suggestions of the environment* are those suggestions which arise spontaneously in the mind of the subject from his knowledge of the nature of the experiments about to be made, of the character of the persons present, the objects of the experiments, and the desires of the experimenters.

In the whole range of experimental hypnotism there are no auto-suggestions that are more apt to modify results than the suggestions of the environment are. And there are none that are disregarded by a certain class of experimenters with such persistent, aggressive fatuity. Indeed, it is somewhat difficult at all times to intelligently eliminate these suggestions; and in a certain class of experiments it is practically impossible. The experiments which we are now considering belong to that class; and it may be set down as an axiom in experimental hypnotism that *no laboratory experiment conducted for the purpose of ascertaining whether suggestion can be successfully employed to induce an hypnotic subject to perpetrate a crime is of any evidential value whatever.*

When a subject is hypnotized for that purpose he knows that he is among friends. He knows that they are law-abiding citizens, who will take care that no harm shall result from the experiments about to be made. He generally knows that he is expected to carry out all suggestions that are made to him. He is very probably aware that he is expected to demonstrate the truth of the proposition that a criminal hypnotist can compel his subject to commit crime. Like all hypnotic subjects, he is anxious to win applause—to create astonishment. In short, he knows that he is the central figure in a comedy or farce which is about to be played in the interests of “science,” and he feels that he is the “scientist.” The inevitable consequence is that he resolves to carry out every suggestion of the hypnotist, knowing that no harm can possibly result. A paper dagger

is placed in his hands, and he is told that a certain gentleman present is an enemy who "needs killing." This he is ready to do, and he proceeds to thrust his paper dagger into the heart of his "enemy," amid the applause of the assembled wisdom.

It is obvious that the moral character of the subject cannot enter as a factor in an experimental case of this kind. He is simply a player in a farce in which he assumes the rôle of the heavy villain. Moreover, the result could be easily reversed by simply suggesting to the subject that he was expected to disobey the criminal suggestions of the hypnotist. In short, the subject in such experiments will do just what he believes to be expected of him ; and the suggestions of the environment will always afford some hint as to that, even if they amount to nothing more than an assurance that it is perfectly safe for him to obey the suggestions made by the hypnotist. It is obvious that laboratory experiments can go no further than the enactment of a farce. No one would dare to place a real dagger or a loaded pistol in the hands of a hypnotized subject, and suggest the murder of a real person.*

Space forbids the citation of authorities to sustain the foregoing propositions, although they are numerous.†

It must be obvious to the intelligent reader that laboratory and platform experiments in this line have no possible evidential value. And when we remember that all the hue and cry that has been raised on the subject of "hypnotism and crime" is based upon the same laboratory experiments, it will be seen that the public has been led into an error of enormous proportions, and of infinite moment in the administration of criminal justice. This, however, only pertains to the value of laboratory experiments as evidence. It must not be forgotten that while they do not prove that hypnotism can be employed for criminal purposes, neither do they disprove that proposition. It simply demonstrates the necessity for eliminating the results of experimental investigation from consideration.

The question of fact still remains: Can hypnotism be successfully employed for the perpetration of crime? My remarks relating to auto-suggestions arising from the moral education and the fixed principles of

* Since the manuscript of this paper was forwarded to the publishers, a new book has been placed in my hands, entitled "Hypnotism: How it is Done; Its Uses and Dangers," by Dr. James R. Cocke, of Boston. This gentleman had the courage to make a practical experiment in this line. Standing in front of a deeply hypnotized subject, he placed a piece of cardboard in her hands, telling her that it was a dagger, and commanded her to stab him. This command she immediately obeyed with great alacrity. He then handed her an open pocket knife, and again commanded her to stab him. She raised her hand as if to execute the command, but hesitated, and immediately had an hysterical attack, which, of course, put an end to the experiment. The doctor adds: "I have tried similar experiments upon thirty or forty people with similar results." He also states that he made a number of tests to prove that the subject was deeply hypnotized.

† For a fuller discussion of the subject, and a collection of authorities, see "The Law of Psychic Phenomena," chapter x.

the subject will have prepared the reader's mind for the only rational answer, viz., it is purely a question of moral character. A criminal hypnotist in control of a criminal subject could undoubtedly procure the commission of a crime under exceptionally favorable circumstances. But a criminal hypnotist would simply waste his energies in hypnotizing a criminal subject; for a man of that character could, without doubt, be just as easily manipulated in his normal condition. Be that as it may, the fact remains that *when a man sets up hypnotism as a defence in a criminal trial he proclaims himself a criminal character.*

Beyond what has already been said of the worthlessness of experimental investigation, this is the only general proposition that can be predicated with certainty from a knowledge of the fundamental laws of hypnotism. But it practically covers the whole ground.

The first legal question that arises is, How far ought hypnotism to be admitted as a defence when it is pleaded? My answer is that it should never, under any circumstances, be admitted as a defence for the one who is clearly proved to have committed the crime. Drunkenness cannot be urged as a defence, and there is infinitely less reason for admitting hypnotism. In the one case a good man may be so far crazed by liquor as to become, in fact, utterly irresponsible. Yet the fact is not admitted as a defence, on the ground that he voluntarily rendered himself irresponsible by getting intoxicated. The hypnotic subject should be held to the same rule and for the same reason; for no man can be hypnotized against his will. This is practically the universal testimony of all the scientific writers on the subject. He voluntarily places himself in the power of a hypnotist whom he more than probably knows to be a criminal character, and he should be held to the same accountability for the results as if he had voluntarily "placed an enemy in his mouth to steal away his brains." Moreover, as I have previously shown, the hypnotized subject will never commit a crime in that state that he would not commit in his normal condition.

The next legal question is as to the admissibility of the testimony of the alleged hypnotic subject in a criminal prosecution of the alleged hypnotist as an accessory before the fact. It is difficult to imagine any legal grounds for the admission of his testimony at all; for if it is true that he was so deeply hypnotized as to be an irresponsible agent in the hands of the hypnotist, he was necessarily in a state that would preclude the possibility of his having any definite recollection of what happened. Indeed, his whole testimony would be open to the suspicion that he was merely reciting the details of a subjective hallucination. In that case his testimony would be literally "of such stuff as dreams are made of"—the "baseless fabric of a vision." Obviously, it should have no more

standing in a court of justice than an alleged dream. Consequently, if it is clearly proved that he was hypnotized, his own testimony should be excluded as against the other party concerning what happened during the period of his irresponsibility.

This brings up the question so often mooted as to the propriety of hypnotizing a party in court for the purpose of questioning him concerning what happened to him during a previous hypnotization. From a legal standpoint this is a most intensely absurd proposition. Not one of the conditions which give value to human testimony would be present. In the first place, he could not be punished for perjury if he swore falsely ; and the instinct of self-preservation would cause him to swear falsely if the truth would militate against him. Moreover, being in a hypnotic state, he would be amenable to control by suggestion, and a cross-examination would utterly confuse him. A cross-examination by a competent lawyer consists largely of artful suggestions in the form of leading questions ; and a hypnotized witness would necessarily either be controlled by them or restored to normal consciousness by a conflict of suggestions. Clearly, a hypnotized subject can have no legitimate standing as a witness in a court of justice.

I have now briefly examined the salient features of the problem from both the psychological and legal standpoints, and I hope that I have made it as clear to others as it is to me that its psychological features are less repulsive and dangerous to the public than many interested writers have pictured them, and that the few legal problems involved are easy of solution without a resort to legislation. *Hypnotism has no legitimate place in criminal jurisprudence.* The attempt to thrust it into that field is the result of a determination on the part of interested parties to confine the uses of hypnotism to a select few. This effort has been aided by popular ignorance and criminal instinct, until our courts of justice are now threatened with an inundation of cases involving questions that are new and strange to lawyers and judges, and threaten jurors with paralysis. It is humiliating, but it is true, that in the last quarter of the nineteenth century we are threatened with a repetition of the insanity of the seventeenth. The ghost of Cotton Mather stalks abroad at noonday, and gibbers from the forum.
—*New York Medical Journal.*

Clinical Notes.

A CASE OF SEPTIC ENDOCARDITIS,

UNDER THE CARE OF

J. E. GRAHAM, M.D., M.R.C.P. LOND.,

IN THE TORONTO GENERAL HOSPITAL.

(Reported by THOMAS McCRAE.)

S. H. M., æt. 35 years; occupation, photo-engraver.
Family history. Father died, æt. 57, from stomach trouble. Mother died, æt. 33, after confinement. Brothers—one older, in good health; one younger, died of pulmonary tuberculosis a day or two before this patient. Uncles—on mother's side—one died of lung trouble; another of yellow fever; on father's side—all healthy. Father of two children, æt. 11 and 5½ years; both healthy. Always well nourished; moderate drinker, spirits and malt liquors. Has drunk since age of 21, but says never to excess.

Occupation. Photo-engraver. Has worked indoors for last three years, previously outdoors. Widower, wife died four and a half years ago of phthisis; her illness lasted one and a half years. Patient had diseases of childhood, congestion of lungs at age of 23, and had rheumatism in the following winter, which attacked his knees; he was laid up for some days. This has recurred off and on ever since nearly every winter, but he was never laid up until last fall, when he was in bed for three days.

Erysipelas, one and a half years ago, on face, not very severe.

Gonorrhœa, last September, a light attack.

Chancroid, three years ago. Treated it himself with nitric acid, and was told by a medical man afterwards that it was a hard chancre. He took mercury, as hydrarg. cum creta, for nine months then; but no secondary symptoms ever appeared, and as the sore had appeared about seven days after exposure the conclusion is that he had not syphilis.

Last October or November he stumbled while carrying a heavy frame and injured himself in the right groin. In a few days the right testicle swelled and became hard, and the scrotum purplish red in color. He applied hot water, and it subsided in about a week. After this his appe-

tite lessened, although he was working hard and putting in extra time. Lost flesh, sixteen to twenty pounds in three months.

Saturday, December 29th, to January 2nd, 1895. No appetite, headache, felt very weak, ate oysters, and drank milk and whiskey; felt very "tough," as he put it, and kept at work though not feeling fit for work.

Wednesday, January 2nd. Went to bed, and called in Dr. W. P. Caven on Thursday, who advised his going to the hospital. He was admitted Friday, January 4th.

Examination. General facts: Height, 5 feet 5½ inches; weight, 130 lbs.; normal 146-150 lbs.; fair muscular and general development; slightly anæmic; odor on turning down the bedclothes, a musty, cadaveric odor, quite noticeable on January 5th, but not evident on examination, January 8th. Breath had the same musty odor on 8th—gone on following day. Urine, on boiling with nitric acid, gave a peculiar musty smell. Large growth of hair on chest and abdomen. Baldness, a hereditary peculiarity in his family. He was bald at 23.

Alimentary system. Teeth fairly good, gums pale.

Tongue: Edges purplish in color; large amount of white coating, particularly on the central portion.

Bowels: Has had constipation, and attacks of hæmorrhoids. No abnormal digestive symptoms.

Abdomen: No swelling or tympanitis, no spots, no tenderness.

Liver: Enlarged about one inch below the costal margin; could be felt.

Vomiting occurred on January 11, 12, and 13—a dark-brown fluid; considerable nausea.

Circulatory system. Says that sometimes, at intervals, after retiring at night, he could feel his heart throbbing very fast, and everything would seem to go with it. Never had faintness or any dyspnoea on exertion. Has noticed that since a boy, when in cold water, the blood would seem to leave his fingers, which would be perfectly pale. Has been troubled with cold feet.

Inspection: Cardiac impulse in fifth interspace; has a fluttering appearance, extended laterally for one and a half inches in the interspace. Maximum point four and a half inches from the median line.

Percussion: Cardiac dullness extends from the median line to the left nipple line, or slightly outside it.

Auscultation: Apex: A rough blowing murmur replacing the first sound and extending up to the second sound. Carried round towards the angle of the scapula with a booming quality. At point just internal to the nipple both sounds could be heard, but very faintly, and with hardly any murmurs.

Capillaries : Capillary pulse appeared to be present under one of the toe nails, not got on the forehead.

Veins : No venous pulsation in the neck.

Respiratory system. Breathing : Three days ago he had severe pain on breathing in the right anterior part of the chest. Absent at time of examination, January 8. At the end of a deep breath there was a sort of catch, which he describes as a sob.

January 10. Rate 40 to 50 after talking. Sharp and quick, and a short, quick cough.

January 11. Breathing abdominal altogether, 60 ; says no definite pain, but an uneasy feeling over the whole of the chest. Cough : None at first ; a dry, hacking cough developed. Sputum, none.

Inspection : Breathing principally abdominal. Very little costal expansion. The intercostal spaces do not move.

Palpation : Vocal fremitus normal.

Percussion : Dullness over the right clavicle, and perhaps slight in the right infraclavicular space. Behind—slight dullness at the base of the left lung.

Auscultation : Roughened inspiration in right infraclavicular region, and at left posterior apex. Very slight. The whole chest examination was not at all decisive on January 8.

January 10. The inspiratory sound was accentuated and roughened over the whole front of the chest. On auscultation—Dr. Graham—there seemed to be very slight traces of crepitations on both sides in the axillary line low down.

January 11. Crepitations on both sides. Sounded like the crepitations of œdema.

January 12. Exaggerated inspiratory sound over the whole surface of the chest, with absence of the expiratory sounds.

The dyspnoea and rapid breathing appeared suddenly on January 10, and were more pronounced on the following day. Easier on January 12.

Integumentary system. Sweats : Has had abundant sweats for about one week before admission, and since in hospital. Come on at irregular times when he is asleep ; had four in one night.

Urinary system. Urine had to be drawn by catheter several times, January 9, 12, and 13.

Urine : January 8—Specific gravity, 1027. Slightly acid. Albumin and sugar, none. Ehrlich's reaction absent. Microscopical examination, nothing abnormal.

Urine : January 13—Specific gravity, 1020. Albumin, none. Sugar, none. Urea, 1.26 per cent. Indican, none. Ehrlich's reaction absent. Crystals, amorphous urates, uric acid, oxalate of lime.

NOTE.—The onset of dyspnoea in this case was very sudden. The patient, while breathing at the rate of 60, complained only of an uneasy feeling. He had no positive pain. This was on January 11. On the following day he was much easier.

Post-mortem. January 14. Nine hours after death.

Inspection: Well-nourished muscular man. Post-mortem rigidity slight. Staining slight.

Abdomen: Slight distension of the intestines.

Thorax: Large amount of fluid. Clear serous transudate on both sides. No adhesions.

Pericardium: Large amount of effusion. Clear serous transudate.

Heart: Weight, 18 ozs. Subserous ecchymoses. Extensive mixed clots in both sides. More ante-mortem than post-mortem clot in the right heart. Nearly altogether post-mortem clot in the left heart. Coronary veins very much dilated with blood. Hypertrophy and dilatation of both sides. Muscle: Pale, flabby; marked granular degeneration; myocarditis. Valves: Aortic, one cusp healthy, the one which is anterior and towards the septum; other two cusps covered by large coarse vegetations and a clot mass; both considerably damaged; old chronic thickening with recent fibrinous deposit and ulceration of one cusp. Mitral valves, healthy.

Lungs: Bronchi and lungs full of frothy fluid. Left: Sodden with œdema; no signs of any trouble at the posterior apex or at the base. Right: Œdematous like the left. A thrombus and clot in one of the pulmonary artery branches.

Spleen: Weight, 7 ozs.; firm, large, pale; a number of yellow nodules from the size of a pea down to pin points; old nodules thought to be.

Kidneys: Left, weight, $5\frac{1}{2}$ ozs.; very firm and hard; no nodules. Right, very firm and hard. An old depressed scar, due to an old plug.

Stomach: Adhesions joining it, at the pylorus, to the colon and gall bladder; dilated; showed catarrh; post-mortem, congestion and hæmorrhage as the result of obstruction; blood mixed with mucus.

Liver and gall bladder: Adhesions joining the gall bladder to the colon. Thrombus in the portal vein, partly ante-mortem and partly post-mortem. Formed a cast of a number of the smaller veins.

Aorta: Full of post-mortem clot down to the bifurcation.

Mesenteric glands could be felt, but were not very much enlarged.

Intestines: Congestion only.

NOTES ON CÆSAREAN SECTION, WITH CASE.

BY ERNEST HALL, M.D.,

Victoria, B.C. (at present in Germany).

AMONG the many interesting vibrations of medical opinion which have characterized this decade, possibly not the least prominent has been that in reference to the estimation of the comparative merits of the various surgical procedures for the relief of dystocia. With our present armamentarium of methods and experience the teaching may be accepted, aside from dogma or prejudice, that the destruction of the living unborn child is rarely, if ever, justifiable.

Cæsarean section, the Parro, Sanger, and Thomas operations, with the late revival of symphyseotomy, have had their admirers, but these latter are being abandoned, and we notice a gradual return, more especially throughout Germany, to the time-honored Cæsarean section. Possibly one of the most able and enthusiastic advocates of this procedure is Professor Olshausen, of Berlin University, who, within the last four years, has performed twenty-two sections with but one death—his second case—which he attributes to a lack of complete asepticism on his part. The mortality in the Berlin hospitals for the last two hundred sections has been but five per cent.

After the indications for section have been determined, including the presence of the foetal heart sounds, and a consideration of the general condition of the mother, Professor Olshausen directs that the labor should be allowed to proceed naturally until the os is dilated to the size of half a dollar; then, after complete aseptic preparation, chloroform should be administered, and the operation proceeded with. A large median section is made, so that the gravid uterus can be brought completely without the abdomen. The abdominal walls are closed at once with clamps, and aseptic towels placed upon the abdomen around the neck of the uterus, which is firmly held by an assistant, who compresses sufficiently to control the circulation. The operator then incises the uterus, beginning at the fundus and cutting completely through the uterus muscle with one incision, by which means the edges of the uterine wound are not rendered irregular and frayed,

as they would be if superficial incisions were made, allowing a retraction and a relative disturbance of the superficial muscular layers. The uterus being opened, the contents are extracted as rapidly as possible. Contraction usually begins at once; the uterus is gently kneaded by the hands until contraction is fairly firm. Catgut sutures are then introduced, not more than one centimetre apart, wholly within the muscular structure, care being taken not to implicate the endometrium. The uterine peritoneum is then closed upon this with fine gut suture, the clamps removed from the abdominal muscles, and the abdomen closed as in ordinary abdominal section. Professor Olshausen has performed this operation four times upon the same woman. The first time he made an extensive ventrofixation, and the three subsequent operations have been done without opening the peritoneal cavity. The worthy professor is represented as having said that if women only knew how easily they could obtain delivery through the abdomen many would seek this method in order to preserve the ante-partum condition of the external genitals.

DISEASE OF ATLOXOID ARTICULATION, WITH ULCERATION OF VERTEBRAL ARTERY.*

By J. BARKER PETERS, M.B.,
House Surgeon, Toronto General Hospital.

THE patient was admitted to the General Hospital, January 5th, 1894. Previous history of the patient not known. She said that for the last ten days she had had sore throat, with difficulty in swallowing, and a little swelling of the left side of the neck.

On examination, temperature $99\frac{1}{5}^{\circ}$, respiration 28, pulse 120. Patient's throat was a little inflamed. The glands were enlarged in the submaxillary region. There was difficulty in swallowing, and pain in neck, but none on motion. Epithelial casts and albumin were present in the urine.

Patient ordered to have poultices applied externally, and a gargle of iron and potash chloride.

January 7. A suspicious membrane appeared on the throat, and patient was isolated. Throat sprayed with hydrogen peroxide. Next day a swelling was seen on the back of the pharynx, on the left side, and was diagnosed as post-pharyngeal abscess. This did not increase in size, and gave no bad symptoms, patient feeling better than before.

January 12. Patient was suddenly seized with severe pain on left side of neck and head, extending upwards and backwards towards occipital region. Was given morphia, which relieved the pain.

Next morning she was again seized with severe pain in the same region. The swelling of the neck was very much increased, and tumor was very tense and seemed to be fluid. Pain lasted only about two hours. Temperature that night, $103\frac{2}{5}^{\circ}$.

January 14. Operation by Dr. Cameron.

An incision about two and one-half inches long was made along the posterior border of the sterno-mastoid. A large quantity of blood clot was scooped out. When the finger was inserted into the wound, it could be pressed back in the cavity opened to nearly the median line. A large hæmorrhage suddenly occurred, and the wound was firmly packed with iodoform gauze, which stopped the bleeding.

*Read before the Toronto Pathological Society.

January 17. Wound dressed seventy-two hours after operation. Some pus was present, and a drainage tube was left in the wound.

A severe hæmorrhage occurred at eleven p.m., soaking dressing, clothing, and bedding of the patient. She was very much exhausted. The bleeding stopped spontaneously. While wound was being dressed, patient fainted. Wound packed with iodoform gauze.

January 22. Another severe hæmorrhage occurred. Being called to attend patient, I made pressure with a thumb on the carotid about an inch above the clavicle, but found that the blood still spurted from the wound. I then pressed down as low as possible with the thumb behind the clavicle, and was able to control the bleeding.

Patient given saline solution, injected into thigh, and recovered but slowly.

January 24. Had another hæmorrhage. Stimulants and saline solution subcutaneously failed to revive her. She lived only three hours after.

Post-mortem examination. Incision for operation was enlarged; finger inserted into cavity; felt bare bone in the back part of the cavity, in region of the transverse processes. The cavity did not extend forwards into pharynx, but there was œdema in back. The common carotid was then dissected out, and on injecting it the water did not escape from the abscess cavity. The vertebral artery was then dissected out and tried, when water was found to escape very freely from the back part of the cavity. On exposing this part the joint between the atlas and axis on the left side was found to be disorganized, and in this situation the vertebral artery was found to be ulcerated through as it passed the joint, and the water, on being injected into the vessel low down, was seen issuing from the vessel opposite the above-mentioned joint.

SPECIMENS FROM A CASE OF ARTERIO-SCLEROSIS.*

BY WM. OLDRIGHT, M.A., M.D.,

TORONTO.

THE following specimens are submitted :

(1) Heart, with attached vessels as far as the middle third of the carotids and subclavians.

(2) Granular kidneys.

(3) Cyst, apparently parovarian.

History. E.T., æt. 66. Married, and multipara. The patient, though highly moral and respectable, had used beer and malt liquors for many years. Although I had known her for a long time, I had not attended her professionally. During my first visit she showed me a small pulsating tumor about the middle of the left common carotid. On palpation there was a feeling of lateral expansion with each pulsation. My diagnosis was that of aneurismal dilatation of the carotid. She told me that Sir Morell Mackenzie had pronounced it an aneurism, and warned her to be very careful to avoid strain, and advised her as to what she should do whilst awaiting surgical aid in the event of rupture of the tumor. Another practitioner in this city had given the same diagnosis.

I did not see her again until August of this year, when I visited her four times. She had dyspnoea on slight exertion, a rapid, feeble pulse, with great tension. The face had a slightly puffy appearance. On auscultation the physical signs of cardiac hypertrophy were present. On the 8th of August I examined the urine, and found albumin present to the extent of about one-eighth in volume on settling. On the 16th (eight days later) I again examined it, and found the merest trace. I ordered a mixture containing strychnine, which she continued to take until the time of my next attendance, which extended from the 16th to the 23rd December, death occurring on the latter date. During this illness the same symptoms and signs were present in increased form. In addition, there were crepitant and sub-crepitant râles posteriorly in both lungs. The sputum, what little there was, was white and tenacious; no rusty color, no elevation of temperature, no pneumonic countenance. I attributed the crepitant sounds to hypostatic serous exudation.

* Read before the Toronto Pathological Society.

I examined the urine on the only occasion obtainable. It contained albumin about one-third of its volume. Specific gravity 1010. Scanty.

POST-MORTEM EXAMINATION.

Thoracic walls. The first point in the post-mortem worthy of notice was, to me, the most interesting and peculiar. Wishing to follow up the carotid and subclavian vessels, I determined to divide the ribs outside of their junction with the cartilages, and I found that the knife went through them quite easily, more easily than one can usually cut the cartilages. I then found that they were very friable and somewhat thin. Dr. Caven will report later, and more in detail, upon their condition, as also upon the heart cavities, and the histology of the various specimens.

Lungs. There were old adhesions between the pleural surfaces, especially on the right side. There were about ten ounces of serous fluid in the left pleural cavity

Heart. Unusual deposit of fat on the upper border of left ventricle. This was hypertrophied.

The *aorta* was dilated. On cutting across the descending aorta in the thorax, thin plates could be felt in its walls. The arteries branching from it were friable. The left subclavian broke across under moderate traction whilst dissecting it from its surroundings.

A curious fact is that there is no post-mortem evidence of aneurismal dilatation of the left carotid. My first impression was that there must have been an excessive thinning of the whole circumference of the wall of the carotid at that point, which would allow a bulging whilst the blood pressure existed, but disappearing after death. Whilst there is some evidence of disease of the intima, there is not sufficient change to support this view, and I now believe that a pulsating projection of thyroid gland shoved the carotid outward, and that the tortuous bulging, or curve, of the carotid formed the other side of what thus gave the sensation of a rounded, pulsating tumor.

Kidneys. Both were contracted and granular, the right, especially, being smaller. The left contained one or two small cysts.

The *cyst* shown in connection with the *left* appendage was apparently outside the shrivelled ovary. It is about two inches in diameter.

The *liver* was enlarged and fatty.

PAINFUL ŒDEMA OF THE LEG : PRESSURE TREATMENT.

BY W. W. BREMNER, M.D.,

Late Assistant Surgeon, New York Hospital for Ruptured and Crippled, etc.,

TORONTO.

IN the December number of *THE PRACTITIONER* there is a very interesting article by Dr. Primrose on the treatment of sprains by pressure. He recommends cotton-wool tightly bandaged on to accomplish the end, and it is a very excellent method. It is certain that the value of even pressure in surgical dressings is not as widely recognized as it ought to be ; and in injuries of the lower extremity, such as sprains and bruises, or in diseases such as ulcers, it is especially valuable.

In the *New York Medical Record*, April 9th, 1892, the writer published an article on ulcers of the leg and their treatment by pressure, giving minute directions as to technique, appending a synopsis of the first hundred cases so treated, and his experience since then, with the method therein described, has been even more favorable.

A recent cure of painful œdema with superficial ulceration of the leg will well illustrate the success of the method.

A gentleman, aged 72, came to me on January 4th, 1895, with a leg very much swollen and superficially ulcerated. He stated that four years before he had suffered from an attack of phlebitis in the limb, and that since that time the leg had remained more or less swollen, and that latterly it had become very painful.

On examination the limb was found very much swollen, discolored, and superficially ulcerated. The pain was so great that his life was rendered miserable, and the leg was so sensitive that it was with difficulty he could put on or remove his stockings and shoes. There was lameness in walking.

A local dressing was applied to the ulcerations of carbolic lotion 1 to 80, on lint, under oil silk, and over this a small piece of gamgee tissue. The leg was then evenly and very firmly bandaged from the toes to the knee with circular stockinette bandage, twelve yards being used, so as to give plenty of support. This dressing was changed every second day for four times, when the lotion was discontinued, and an aristol ointment

spread on a little gamgee tissue without oil silk being used. This dressing was changed every third or fourth day. The first dressing removed all actual pain, and by the third dressing all sensitiveness was gone; every trace of swelling had also disappeared. As the patient expressed it, "His leg felt as well as ever it did."

The ulcerations were all healed by January 28th, and the patient was discharged a few days afterward, the interval being used to teach him how to apply the bandage himself, as, at such an age, it is advisable to continue its use until all danger of relapse is over.

During all the treatment the patient walked about freely, and attended to his business with more freedom than before its commencement.

In the treatment of severe sprains and bruises, this circular stockinette bandage will also be found most useful, as it gives such firm, equable pressure, at the same time permitting of free motion. To one unaccustomed to its use it would seem almost incredible what prompt and permanent relief is given, if well applied.

In conclusion, I would like to direct attention to some of the advantages of this method. First, the bandage is perfectly flexible, and permits of free motion, while giving even pressure. Second, it is porous, permitting of free escape for all perspiration, etc. Third, it is absorbent, and, used in conjunction with gamgee tissue, provides for complete absorption of any discharge which may be present. Fourth, it is so thin that a patient can wear an ordinary shoe.

Progress of Medicine.

MEDICINE

IN CHARGE OF

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GLYCOSURIA FROM INGESTION OF THYROID EXTRACT.

W. Dale James (*British Journal of Dermatology*, June, 1894) gives notes of a case, the patient a man of 45, and "an old psoriatic." Following the taking of four tabloids of the extract daily, nervous symptoms, depression, palpitation, flushings began to appear. After two weeks he complained of polydipsia; his urine was much increased in quantity, and acetone could be detected in his breath by its odor. The specific gravity of his urine was 1032 and sugar was found at every test. He was placed on diabetic diet and the thyroid administration stopped. In less than a month the sugar disappeared, and in six weeks the patient was entirely restored to health, except for his psoriasis, which was not in any way improved by the treatment.—*Journal of Cutaneous and Genito-Urinary Diseases.*

POLYURIA IN CHRONIC PULMONARY TUBERCULOSIS.

Robin has carefully studied the urine in a large number of cases of chronic pulmonary tuberculosis. He concludes (*Archives générales de Médecine*, June, 1894, tome clxxiii., No. 6, p. 653) that, in general, the quantity of urine is slightly increased during the first stages of chronic pulmonary tuberculosis; it is about normal in the second stage, and more frequently diminished in the third stage. In each stage, however, a certain number (20 per cent.) of patients depart from the rule, and exhibit

polyuria more or less marked. Polyuria is relatively more frequent in young adults than in the aged. The polyuria of the first stage of phthisis may present the characteristics of phosphaturia, or there may be simply an increase of urinary water without notably heightened excretion of other constituents of normal urine. Exaggerated azoturia due to denutrition is very rare. Polyuria of the latter stages of phthisis is usually related with "mixed nephritis," tuberculous nephritis, or amyloid degeneration of the kidneys. Phosphaturia and essential polyuria seem to predispose to tuberculosis. There is likewise, however, a veritable pre-tuberculous polyuria, sometimes phosphatic, sometimes simple, that appears to be associated with cases of renal congestion. It is distinguished from the other form by the rapid supervention of pulmonary tuberculosis, and appears to be the first manifestation of the struggle of the organism with the bacilli and their toxic products. Transitory or reactional polyuria or phosphaturia has a favorable prognostic significance, while if permanent the phenomena are of unfavorable import. Oliguria depends upon accidents and complications, fever, sweating, diarrhoea, etc. A milk diet should be employed in cases of oliguria. Rectal injections of hydrogen sulphide are highly beneficial.

THE DIFFERENTIAL DIAGNOSIS BETWEEN PULMONARY SYPHILIS AND PULMONARY TUBERCULOSIS.

Rendu (*Bull. Méd.*, 1894, May 20, *Internationale klin. Rundschau*, viii. Jahrg., No. 27, p. 969) at a recent clinical lecture presented a case in which the question arose as to the existence of either syphilis or tuberculosis of the lungs or of both conditions in association. The case occurred in an old woman who had long been emaciated, and was cachectic, but without fever. The symptoms present were neither well defined nor characteristic. There was complaint of pain; of stiffness of the extremities, without noteworthy weakness or paræsthesia; of dyspnoea on exertion; and for a short time of a dry cough without expectoration. On physical examination of the lungs the respiratory and auscultatory phenomena were found normal anteriorly. Posteriorly, there was found dullness on percussion over the apex of the right lung, with roughened, prolonged expiration; but elsewhere the conditions in the lungs were normal. The area of cardiac dullness was not changed; the apex-beat was normal in strength and situation. On auscultation, a loud, rough, systolic murmur was heard, together with a softer and more superficial murmur. The patient, however, did not complain of any symptoms of cardiac insufficiency. The arteries were neither tortuous nor rigid. The liver was normal, and the urine contained no albumin. There was present a diffuse and characteristic syphilitic melanoderma. The nose

was painful and swollen. An iritis of two years' standing existed. There was complaint of nocturnal bone-pains and of headache. The woman gave a good family history, and had herself only suffered with measles. At the age of thirty she had had a sore mouth, followed a year later by pustules that left cicatrices. For several years after this her health was poor, but subsequently her condition improved. At this time she presented symptoms of bronchial catarrh, together with hæmoptysis, and also renewed symptoms of syphilis, despite active anti-syphilitic medication. In a discussion of the differential diagnosis, it was pointed out that against the existence of tuberculous process was the long duration of the case, the absence of expectoration (excluding a search for tubercle bacilli), of râles, and of concomitant symptoms. Although syphilis usually attacks the lower portion of the lungs, cases have been reported in which the apex has been invaded. It was further noted that syphilis and tuberculosis of the lung may occur in association, and also that tuberculosis may develop in a lung previously syphilitic. Indurating pneumonia was to be excluded by the absence of a history of an attack of acute pneumonia. It was thus probable that the pulmonary changes were syphilitic. In the absence of other etiologic factors, such as the infectious diseases and arteriosclerosis, the same origin had also by exclusion to be ascribed to the endocardial changes. The attack of measles was not thought an adequate cause. Finally, it was noted that marked improvement followed the administration of anti-syphilitic treatment, including mercury and potassium iodide.—*American Journal of the Medical Sciences.*

DRY MOUTH, OR XEROSTOMIA.

Dr. Thomas Harris showed a woman, æt. 30, who had good health until three or four years ago, when the affection began. The mouth was absolutely dry, and there was a complete arrest of secretion of all the salivary and buccal glands. There was also a decided enlargement of the parotid glands. The woman was anæmic, but all the organs appeared healthy. There was no disease of the pelvic viscera. Dr. Harris referred to the very few cases of the malady which had been recorded, and especially to two cases recorded by Mr. Jonathan Hutchinson of relapsing parotitis, one of which was associated with a certain amount of dry mouth. Dr. Harris regarded xerostomia as a functional nervous affection, and thought that, probably, the parotid enlargement had a similar cause, and he referred to Mr. Stephen Paget's communication on the relation of parotitis to injuries and diseases of the abdominal and pelvic viscera.—Manchester Clinical Society, *British Medical Journal.*

THERAPEUTICS

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FORMALIN "SCHERING."

The name "Formalin" has been given to a 40 per cent. solution of chemically pure formaldehyde in water.

Formaldehyde (CH_2O) is a gaseous body which is prepared by subjecting methylalcohol to oxidation. It is readily absorbed by water; for this reason it is put on the market in the form of an aqueous solution termed "Formalin."

Formalin mixes with water in all proportions. It is, therefore, easy to prepare any dilution that is wanted.

Formalin has been found by Drs. Loew, Buchner, Aronson, Berlioz, Stahl, Liebreich, Lehmann, and others, to be an excellent disinfectant and antiseptic. The properties of formalin may be expressed as follows:

It has an extraordinarily active microbicide power, similar to that of sublimate, is comparatively non-poisonous, *attacks only the substance of the contagious materials*, and is very readily employed under all circumstances either as a liquid or in a gaseous form.

The enormous antiseptic power of formic aldehyde solutions and their comparative non-poisonousness have indicated the employment of formalin as a surgical disinfectant, and especially recommended as an external remedy for *lupus*, *cancerous* affections, and in very dilute (half per cent.) solution for the irrigation of cavities.

The effect of the preparation upon the human organism was tried by Dr. Gegner, of Erlangen (*Munchener Med. Wochenschrift*), and solutions from $\frac{1}{4}$ to 25 per cent. strength employed as gargles and lotions in the mouth and throat. He came to the conclusion that formalin was one of the strongest antibacterial remedies known, and that, although in an undi-

luted state its vapors and local irritant action on the mucous membrane contraindicated its use, he recommended the employment of 0.6 and 0.8 per cent. solutions as mouth washes, and 2.5 per cent. solutions in skin diseases, such as *psoriasis* and *lupus*.

At about the same time Prof. K. B. Lehmann, of Wursburg (*Munchener Med. Wochenschrift*), after studying the properties and characters of formalin, recommended it as the best and safest, as well as the cheapest, preparation for disinfecting clothes, toilet articles, and household goods, especially on account of the great extent to which it could be diluted and still preserve its activity.

FORMALIN AS AN ANTISEPTIC.

Drs. C. Slater and S. Rideal, of St. George's Hospital, London (*Lancet*), report on formalin as an antiseptic as follows :

The first series of experiments was made to determine the proportion of formic aldehyde required to inhibit the growth of specific micro-organisms. For this purpose formalin was added to tubes of bouillon so that they contained formic aldehyde in proportions ranging from 1 : 1000 to 1 : 20000. These tubes were then inoculated with the micro-organisms to be tested, capped, and placed in the incubator at the most favorable temperature for growth. The cultures used for inoculation were vigorous twenty-four-hours-old growths in bouillon or on agar. The results are embodied in the following table:

ORGANISM.	Proportion of Formic Aldehyde inhibiting growth.	Proportion of Formic Aldehyde allowing some growth.	Remarks.
<i>Staphylococcus pyogenes aur.</i> ,	1 : 5000	1 : 10000	Growth poor in 1 : 10000 and much delayed in 1 : 20000.
<i>Bacillus typhosus</i> - - -	1 : 15000	1 : 20000	
“ <i>coli communis</i> - - -	1 : 7000	1 : 10000	Very scanty.
“ <i>anthracis</i> - - -	1 : 15000	1 : 20000	After 72 hours' incubation.
<i>Spirillum cholerae</i> - - -	1 : 20000	—	Scanty growth on 6th day.
<i>Bacillus mallei</i> - - -	1 : 20000	—	—
“ <i>pyocyaneus</i> - - -	1 : 7000	1 : 10000	On the 3rd day.
<i>M. prodigiosus</i> - - -	1 : 20000	—	—
<i>Bacillus lacticus</i> - - -	1 : 20000	—	—
“ <i>butyricus</i> (Hueppe) -	1 : 20000	—	—

By these experiments formalin is shown to possess, in a high degree, the power of inhibiting the growth of various microbes. This power varies with the micro-organism tested, but is in all cases considerable, and would place formalin, in this respect, among the first three or four antiseptics in Koch's tables.

The time required by solutions containing 1 per cent. and 1 per mille of formic aldehyde to cause the death of various microbes was next determined. In experiments of this kind it is absolutely necessary that methods

be used in which the antiseptic is thoroughly removed from the test culture or great dilution secured, as the inhibitory action of formic aldehyde is so great. Sterile silk threads were soaked in cultures of the various micro-organisms and then transferred to the antiseptic. After exposure for various periods the threads were withdrawn, well washed in sterile water, and transferred to bouillon tubes, which were exposed to suitable temperatures. The cultures used were, in all cases, twenty-four-hours-old bouillon cultures. The culture tubes containing the treated threads were kept for more than eight days, in order to avoid errors from retarded growth. The tubes in which no growth took place were tested by inoculation, in order to determine whether they were still suitable for growth of the microbes, or whether the sterility was due to transferred antiseptic. They all yielded copious growths on secondary inoculation. Control experiments were made in all cases, the threads being soaked in water for a time equal to that of the maximum period of exposure to the antiseptic.

One per cent. solution: Threads examined at intervals of ten minutes gave:

ORGANISM.	Time required to kill the microbes.
Staphylococcus pyogenes aureus - - - -	Between 50 and 60 min.
Bacillus typhosus - - - -	" 40 " 50 "
" coli communis - - - -	" 30 " 40 "
" anthracis - - - -	Less than 15 minutes.
Spirillum cholerae - - - -	" " 15 "

One per mille solution: In these experiments, where the time of exposure was over seven hours, a different method was adopted. The cultures were made in a known volume of bouillon, and an equal volume of diluted formalin was added, so that the resulting mixture contained 1 per mille of formic aldehyde. Bouillon tubes were inoculated from this solution. Threads were examined at intervals of half an hour. When the exposure was between seven hours and twelve hours the examination was hourly, and then after twenty-four hours. The following results were obtained:

ORGANISM.	Was not killed after.	Was killed.
Bacillus anthracis (no spores)	—	In 30 minutes.
Spirillum cholerae - - - -	—	" 2 hours.
Staphylococcus aureus - - - -	12 hours.	" 24 "
Bacillus typhosus - - - -	12 "	" 24 "
" coli communis - - - -	12 "	" 24 "
" mallei - - - -	11 "	" 12 "
Putrefactive organisms - - - -	24 "	—

Experiments were made to see how far these solutions might replace the 1 or 2 per cent. solution of carbolic acid frequently used for the preliminary disinfection of soiled linen before washing. Soiled cloths from the post-mortem room and sterilized cloths soaked in cultures were left for from twenty to twenty-four hours in 1 per cent. and 1 per mille solutions

of formic aldehyde. After washing in sterile water, they were examined by cultivation.

	1 per cent. solution.	1 per mille solution.
Cloths from post-mortem room,	Sterile	Not sterile
Cloths soaked in bacillus typhosus,	Sterile	Sterile
Cloths soaked in spirillum cholerae,	Sterile	Sterile
Cloths soaked in staphylococcus aureus,	Sterile	Sterile

The solutions are without any ill-effect on clothes, and are efficient as antiseptics, especially the 1 per cent. solution, and the more so as, in practice, the adherent formic aldehyde solution would not be removed.

An examination of the individual results shows that there is a marked engthening of the time required for development, as the time during which the antiseptic is allowed to act is increased, until the point at which death of the microbes occurs is reached. Thus, in the case of the bacillus typhosus acted on by 1 per cent. solution, while the control grows readily in twenty-four hours, the threads exposed for twenty minutes show no growth until after forty-eight hours, and those exposed for thirty minutes develop only after seventy-two hours. Similar results obtain in the case of the 1 per 1000 solutions and with the other organisms examined.

Formic aldehyde in solution and as a vapor possesses decidedly antiseptic and disinfectant properties, and its non-poisonous character, easy vaporization, and freedom from corrosive or other damaging action on fabrics will render it useful for many purposes of practical disinfection.

FORMALIN IN DERMATOLOGY.

At a recent meeting of the Parisian Society for Dermatology and Syphilography, Dr. Potterin reported upon the treatment of skin parasites with formalin. He considered that formalin belongs to the safest and most reliable antiseptics, for its vapors diffuse readily even through masses of fatty matter. This property makes it specially suitable for the treatment of deeply implanted sick hair, and also for the disinfection of the hair follicles filled with sebaceous matter. The application of a layer of absorbent cotton dipped in a 2 per cent. formalin solution, and covered over with an oil-skin bandage, is well tolerated. In case of irritation of the skin the bandage may be removed for a day.—*London Therapist*.

OBSTETRICS

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THE ETIOLOGY OF PUERPERAL FEVER.

The *University Medical Magazine* gives the following deductions from Dr. Herman's remarks in a discussion of puerperal fever:

(1) Puerperal fever is produced by micro-organisms which get into the system through wounds made in childbirth.

(2) These organisms are transferred by contact. They are not inhaled or swallowed.

(3) The transference of organisms is prevented by cleanliness, and the organisms are killed by antiseptics.

(4) The hands are the usual poison-bearers; next in frequency clothes and instruments.

(5) Investigation of a particular outbreak of puerperal fever should begin with inquiry into the precautions taken by doctors, nurses, and midwives to secure the cleanliness and disinfection of their hands, clothes, and instruments.

(6) There is no such thing as self-infection with puerperal fever. The causes supposed to produce "autogenetic" puerperal fever produce, in lying-in women defended by antiseptics from septic poison, only trivial illnesses.

(7) The inhalation of sewer gas causes in the puerperal woman the same symptoms as in other persons. There is no good evidence that, in women defended by antiseptics from septic poisoning, it produces symptoms like those of septicæmia.

(8) The poison of erysipelas of the skin produces in lying-in women erysipelas of the skin, and no other illness. But the poison of the disease known as phlegmonous erysipelas of cellular tissue produces puerperal fever.

(9) The poison of scarlet fever produces in lying-in women scarlet fever, and no other illness.

ALBUMINŪRIA OF PREGNANCY AS A CAUSE OF DEATH OF THE FŒTUS.

In twelve cases of the albuminuria of pregnancy recently observed by the author all the children were born in bad condition, only five of them surviving. In six the death was directly traceable to the toxæmia. In four cases multiple hæmorrhages had occurred into the placenta. These patients all came to him, however, in advanced stages of uræmic intoxication.

Speaking of the frequency with which these hæmorrhages are observed in albuminuria, the author mentions an instance in which the weight of the clots equalled that of the placenta itself. He emphasizes the importance of early treatment, and especially the use of the milk diet in the interests of the child as well as the mother. In 250 cases recently studied by Bridier there was a foetal mortality of 20 per cent., notwithstanding some treatment. The much larger mortality in Oui's cases, in which the milk diet had not been employed, is significant.

The induction of premature labor, the author thinks is indicated only after the milk treatment has failed to relieve the symptoms.

In the discussion, Chaleix laid stress on the importance of diuresis for the elimination of the toxins. In his hands the hypodermic injection of the physiological salt solution in large quantities had, in conjunction with the use of milk given through a stomach tube when the patient was unable to swallow, proved of marked service in desperate cases. The quantity of urine was increased, and both the maternal and the foetal condition improved.—*Brooklyn Medical Journal*.

 THE TREATMENT OF HÆMORRHAGE FROM PLACENTA PRÆVIA.

Dr. W. J. Smyly, Master of the Rotunda Hospital, Dublin, in opening the discussion on uterine hæmorrhage during the last two months of pregnancy, at the last meeting of the British Medical Association, spoke as follows respecting the treatment of hæmorrhage due to placenta prævia :

In almost every case of severe hæmorrhage the os will be found sufficiently dilated to admit two fingers ; a foot should then be brought down, when the rupture of the membranes, and the pressure of the foetal body upon the placenta, will control the hæmorrhage ; and the further progress of the case is left to natural efforts. Should flooding continue, however, gentle traction upon the leg of the foetus is all that is required. If any part of the foetus present excepting the lower extremity, version either by abdominal manipulation or by Braxton Hicks's bipolar method is a necessary preliminary to bringing down the foot. This is the routine practice, and is applicable to the great majority of cases. There are two conditions, however, in which it is inapplicable—first, where the os internum will not

admit two fingers ; and, secondly, where labor is so far advanced that version is impossible or unnecessary. In the first of these I should plug the vagina, but such cases are rarely met with. Out of fifty cases that we have treated in the Rotunda Hospital and extern maternity during the past four years I have not once met with such a case. When labor is far advanced, and the os well dilated, rupture of the membranes is all that is required.

Other methods of treating placenta prævia should be mentioned, but I do not recommend any of them. *Accouchement forcé* has, I hope, been universally abandoned. Dr. Barnes' method of separating the placenta from the lower zone of the uterus is good and scientific, but it does not with absolute certainty control the bleeding, and by rupturing the membranes early in labor it renders version more difficult, should it afterwards become necessary ; besides, the separation of the placenta with the finger, even with the most careful antiseptic precautions, is not free from risk. It is, however, preferable to the method still so frequently adopted of plugging the vagina until the os is sufficiently dilated to admit the hand, and then performing internal version, followed by extraction. This method entails a number of dangers, resulting in a maternal mortality of about 24 per cent. The plug itself is a source of danger, especially when it has to be frequently renewed. It may introduce septic matter from without, and causes a stagnation of the discharge which is liable to putrefaction ; besides, it entails loss of time and considerable hæmorrhage before the os is sufficiently dilated to effect delivery. The introduction of the hand may carry up septic matter from below, and favors the entrance of air into the veins, a recognized cause of death in these cases. The extraction of the child may cause deep cervical lacerations, and the emptying of an imperfectly retracted uterus predisposes to atonic post-partum hæmorrhage. The method already recommended minimizes all these dangers. The early performance of version prevents excessive ante-partum hæmorrhage ; the plug is not employed, the hand is not introduced into the uterus, and the expulsion of the child being left to nature post-partum hæmorrhage is efficiently guarded against. The mortality following this method is under 7 per cent. Out of twenty cases treated in the wards of the Rotunda Hospital during the last four years and a half two patients only were lost ; one died of pulmonary embolism on the eighteenth day, and the other from rupture of the cervix, having been delivered during my absence by internal version followed by extraction ; she died in a few minutes. Excluding this case the mortality was under 6 per cent.—*British Medical Journal*.

PÆDIATRICS AND ORTHOPÆDICS

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TUBERCULOSIS OF THE CHOROID.

In the January number of *The Archives of Pediatrics*, 1895, Dr. George Carpenter, of London, reproduces original drawings of tubercles of the choroid. Several cases are given in full, with most accurate descriptions of ophthalmoscopic appearances. In several instances the tubercles were discovered in children with symptoms of meningitis; in other cases there were no indications of meningeal involvement, but the patients were the subjects of spinal caries, hip-joint disease, rickets and malnutrition, pulmonary tuberculosis, or had only vague suspicious symptoms. In the last instance the discovery of choroidal tuberculosis made the diagnosis. Dr. Carpenter urges the importance of ophthalmoscopic examination for tubercles in every case where there is the slightest element of doubt. To illustrate this point, the following case is given *in extenso*:

On April 4th, 1893, I was called into consultation by Dr. Frederick Nicholls, of Corydon, to see Walter S., æt. eight years. Two years previously I had seen, with Dr. Nicholls, a sister of his, æt. ten years, suffering from abdominal tuberculosis, from which she died. The parents feared that this child, too, might be tuberculous. He had been attended by Dr. Nicholls since February 16th with gastric disturbance. From February 28th to April 4th, his temperature had been irregular, never above 102.4° F., and at times the morning rises were in excess of the evening, but not invariably. When I saw him he was in his bed, and was dull and apathetic. The only abnormality that I could detect, apart from extra-*puerile* breath sounds, was an enlarged mesenteric gland, the size of the top of one's thumb, to the left of, and slightly above, the umbilicus. An ophthalmoscopic examination was then made, and revealed the following abnormalities: Left eye. Indirect examination. Optic disc normal. When

the child looks to the right a round fawn-colored tubercle, of the apparent diameter of No. 1 shot, is seen close to a retinal vein, and passing across its surface is a tiny offshoot from the vein.

Right eye. Indirect examination. Optic disc normal. When the child looks down three similar fawn-colored tubercles in the choroid are noticed. On the ocular examination I gave an unfavorable prognosis, and verified the parents' suspicion as to the tuberculous nature of the disease. He died a few days after my visit.

IMPORTANCE OF EXAMINATION FOR THE DIPHTHERIA BACILLUS.

In the *British Medical Journal* for January 19th, 1894, Drs. Washbourn and Hopwood, of the London Fever Hospital, cite the following cases as illustrating the importance of examination for the diphtheria bacillus:

CASE 1. A boy was admitted who had sore throat, and within twenty-four hours a perfectly typical scarlet fever rash. On the right tonsil there was a patch of whitish pullaceous exudation, similar to what is commonly met with in the acute stage of scarlet fever. As a matter of routine, an examination of exudate was made. On the next day many typical diphtheritic colonies developed in the tubes. The exudate spread to the opposite tonsil, but soon cleared off both sides. Examinations were repeated at frequent intervals during the patient's stay in the hospital, and diphtheria bacilli found on each occasion. They were still present at time of report, which was six weeks after admission. Well-marked desquamation followed disappearance of the rash.

CASE 2. A boy was admitted with ordinary attack of scarlet fever, accompanied with rhinitis. During convalescence the rhinitis, which had disappeared, returned. There was no other symptom, and the throat was quite healthy. An examination of discharge from nose was made, and virulent diphtheritic bacilli were found.

CASE 3. In one instance diphtheritic bacilli were found in the throat sixty-three days after disappearance of membrane, although the throat had been sprayed with a view to disinfection. Their presence, in spite of spraying, might be accounted for by the fact that the boy had adenoid growths in the pharynx.

CASE 4. The fourth case illustrates a very slight infection, yet undoubtedly diphtheritic. A boy had what was considered coryza, with slight nasal discharge. He quickly recovered, and nothing more was thought of it until diphtheria broke out among his companions. A careful examination of patients three weeks after failed to make out anything abnormal. An examination, however, of secretion from nose revealed diphtheritic bacilli, which were proved to be virulent by inoculation. There was little doubt that the "coryza" was really diphtheria.

CASE 5. A fifth case illustrates the possibility of attendants harboring diphtheritic bacilli, and giving no sign. A nurse, who was in perfect health, was in attendance on cases of diphtheria. A systematic bacteriological examination of her throat was made. Although the throat seemed quite healthy, yet diphtheritic bacilli were found on each of many occasions during six weeks' attendance. The bacilli were of the large variety, and were proved to be virulent. The nurse did not suffer at all in health. Examination of the throat of another official was made on one occasion, and bacilli of the short variety were found. These were not virulent. The throats of four other nurses in attendance upon cases of diphtheria were examined, but with negative results, in so far as diphtheritic bacilli were concerned.

POSITION IN THE TREATMENT OF ELBOW-JOINT FRACTURES.

In Roberts' paper before the American Surgical Association in 1892, it was shown that the majority of surgeons prefer to put up these fractures having the arm flexed at an angle of 90° ; yet that fifteen out of eighty-eight surgeons prefer to fix the arm in an extended position.

The undesirable results of elbow fractures are due usually to one of two things: (1) Limitation of motion; (2) reversal of the normal humero-ulnar angle. Twenty-four experiments were made: Internal condyle fractures, 7; external condyle, 4; transverse fractures across the lower end of humerus, 4; "T" fractures, 4; internal epicondyle, 2; other fractures, 3.

Fracture of internal condyle. Conclusions from experiments: By bringing the forearm into the acute angled position with pressure downward and backward in front of the internal condyle, and with the forearm semi-pronated, the deformity is always reduced, and the fragment is firmly locked in position. In the second experiment it was found very difficult to bring the fragments into position while the forearm was extended. In a third case, when the forearm was extended the fragments were widely separated and dangled loosely; while in a position of acute flexion and semi-pronation the parts came into good position, and were so retained. Similar results in other four cases.

External condyle conclusions. Acute flexion at the elbow serves to replace and retain the fragments as well as it did in the case of internal condyle fracture; while the extended position allows the head of the radius to move forward and to carry the external condyle with it, producing such a result that flexion of the arm is not possible, beyond a limited degree.

Transverse fractures, including "T" fractures, conclusions. The advocates of extension say that the forearm should be put into a position

which is slightly less than full extension. When thus placed the fragments were found to be most loosely held. As in former experiments, the best position for replacement and retention of the fragments was found to be one of acute flexion with semi-pronation.

Fractures of epicondyle, conclusions. Good result, whatever position may be chosen; but fixation was more complete when the forearm was flexed acutely.

Dr. Smith says the following conclusions are justified:

(1) When either condyle of the humerus is broken off into the joint, the fragment remains closely attached to the bone below, whose motion it follows.

(2) The fragment of a fractured condyle can be most securely replaced in its normal position by the following manœuvre: forcible extension followed by pressure on upper end of ulna, downward and forward, while the forearm is being pronated and flexed to an acute angle with the upper arm.

(3) The same manœuvres act equally well in replacing the fragments, if the fracture be of both condyles, a transverse fracture of the lower end of the humerus, or a "T" fracture. (Probably true also of epiphyseal separation.)

(4) In all these fractures involving the joint the fragments are held most firmly in place, *i.e.*, are least susceptible of displacement from forces acting from without, if the elbow is tightly flexed. The next best position in this regard is the position of forced extension (not loose extension), while the greatest mobility is met with in the position of 100° of flexion.

(5) Forced extension in all cases causes a rotation of the fragment forward. A less degree of extension, which will not do this, allows the fragment great freedom of motion.

(6) The essential factors in the locking of the fragments in the acute position seem to be the conoid process in front, and the ligamentous and muscular structures behind. The tendon of the triceps is sufficient, if the posterior ligament is divided, and the ligament is sufficient if the muscle is removed.—*H. L. Smith, in the Boston Medical and Surgical Journal, October 18 and 25, 1894.*

FOR WARTS.

℞.	Hydrarg bichlor.....	gr. v.
	Acid salicyl.....	ʒ i.
	Collodii.....	ʒ i.

M. S. : Apply every day.—*Coll. and Clin. Rec., Clinique, 1894, vii., 8.*

Editorials.

THE PATRONS' MEDICAL BILL.

WE publish in this issue the admirable letter of Dr. G. Sterling Ryerson, M.P.P., reprinted from a special edition of the *Canadian Medical Review*, respecting the bill to amend the Ontario Medical Act introduced by Mr. Haycock, the Patron leader in the Ontario Legislature, addressed to the President, Council, and members of the College of Physicians and Surgeons of Ontario. We will not try to prove, what is sufficiently evident to all our readers, that such legislation as is proposed would be disastrous both to the public and the profession.

Many think, however, that there is no danger of such an absurd bill passing through the legislature. If any such impression becomes at all general among the members of our profession much harm may ensue. There is very grave danger. No men in our community have so much power in election campaigns as the doctors, especially those practising in country districts. Let them now in a united body make their influence felt. It is not a question of provincial politics. It is not a Government or an Opposition question. Certain men on both sides of politics show some inclination to support the bill. How many we can't tell, but probably far more than most physicians think. A united protest from the profession would defeat it. Let all use their personal influence to the fullest extent.

At a meeting of certain members of the profession in Toronto, March 20th, the following committee was elected to take definite action in the matter: Drs. Adam H. Wright (chairman), N. A. Powell (secretary), C. H. Cook, L. McFarlan, W. J. Greig, Edmund E. King, J. O. Orr, W. H. B. Aikins, G. A. Bingham, and G. Sterling Ryerson. This committee has done considerable work, and communicated with physicians in all parts of the province. We sincerely hope that all will appreciate the importance of the crisis, and act promptly. Petitions should be sent to the government from every township, village, town, and city in Ontario, asking for a rejection of the bill.

Appended to this article will be found a form of petition. Please sign and procure, if possible, not less than two other signatures, and send *at once* to THE CANADIAN PRACTITIONER, 61 Queen Street East, Toronto. If you are not in a position to get other signatures, send the petition with your own name.

THE ONTARIO MEDICAL ASSOCIATION.

WE are requested by the Secretary, Dr. J. N. E. Brown, of Toronto, to state that the next meeting of the Ontario Medical Association will be held in Toronto, June 5th and 6th. The President, Dr. J. W. Bruce Smith, formerly of Seaforth, but now living in Hamilton, and other officers of the society, have already done much in the way of making the preliminary arrangements, and are able to announce that an "excellent programme" is likely to be presented.

The President earnestly asks for the hearty co-operation of members in all sections of the province in a united effort to make the meeting of 1895 the most successful that the association has known. Dr. Smith's ambition is a very laudable one, and we hope that he will meet with nothing like disappointment. His loyalty to the association in the past, his prominent position in the profession, and his active work for many years in medical societies—local, provincial, Canadian, American, and British—would, under any circumstances, give considerable weight to any appeal which he might make to the members of our provincial association; but when he speaks in his official capacity as President, his "call to arms" should strike the rank and file with still greater force.

The work of preparation falls chiefly on two committees, which have already done a large amount of work. The Committee on Papers and Business, under the chairmanship of Dr. N. A. Powell, of Toronto, has received assurances of a very gratifying kind from various quarters, and expects a number of physicians and surgeons from the United States. While, however, we are all believers in free trade and unrestricted reciprocity in medical matters, particularly those referring to the conduct of meetings such as this; still, we attach the greatest possible importance to home products. We hope that there will be a large number of papers presented by members of the association.

The Committee of Arrangements has been organized, under the chairmanship of Dr. James F. W. Ross, of Toronto, and expects to follow nearly the same course as that adopted by the committee of last year. There will probably be a luncheon given by the Toronto members to the outside and visiting members present. We expect to give full particulars in future issues.

PURE MEDICINES.

THERE can scarcely be any doubt that the numerous manufacturers of medicines now in existence are giving us the most reliable and most palatable pharmaceutical preparations that the world has ever seen. It is, of course, a matter of great importance that there should be no

PETITION.

TO THE HONORABLE THE LEGISLATIVE ASSEMBLY OF ONTARIO IN PARLIAMENT ASSEMBLED :

The petition of the undersigned Practitioners of Medicine and others of the town of _____ humbly showeth :

That the Ontario Medical Act has been enacted by your Honorable Body for the protection of the public from frauds, impostors, and empirics; that by that Act the profession of medicine and surgery has been raised to a high standard of excellence; that in consequence of the results thus obtained the people of this province have a public health service unequalled in any country in the world; that the Ontario Medical Act has been adopted in part or in whole by many of the States of the United States, so admirably has it been framed to meet the requirements of the public and of the profession;

WHEREFORE, your petitioners humbly pray that your Honorable House may be pleased to reject Bill 96, entitled "An Act to amend the Ontario Medical Act," now before your Honorable Body for consideration, and your petitioners will forever pray.

NAME.	RESIDENCE.	OCCUPATION.

breath of suspicion as to the purity of the materials used by the manufacturers. As our readers are aware, we do not insert what are called "reading notices" for our advertisers, but we think it an act of simple justice to a well-known firm to correct a wrong impression which, to some extent, has gone abroad respecting its preparations. The *Toronto World* recently contained statements to the effect that this company was endeavoring to import a "low grade of alcohol for the manufacture of pharmaceutical preparations intended to be used in the making up of prescriptions."

This was, of course, a very serious, and, indeed, startling charge. We have taken considerable trouble to investigate the matter, and have come to the conclusion that our leading manufacturers of medicines, both in Canada and the United States, use good and pure materials in their factories, and that their preparations are thoroughly reliable. In the particular instance referred to we are convinced that there was positively no foundation for the charge, which grew out of a misunderstanding on the part of the newspaper's correspondent at Ottawa. We are glad to be able to say that the *World*, after enquiring fully into particulars, frankly withdrew the charge. The following excerpt from the *World's* article will explain its present position in the matter, and, at the same time, contains nothing that is not absolutely correct: "As a matter of fact, Parke, Davis & Co. did not at all apply to be allowed to import a low-grade alcohol, as at first indicated, and this point was fully brought out by our correspondent in his despatch of February 27th. The company merely wished to import highly-rectified alcohol for use in manufacturing for foreign markets."

PHYSICIANS IN THE WITNESS BOX.

IT cannot, we fear, be said in a general way that physicians shine very brightly as witnesses in courts of law. In a case where the lawyer and the doctor enter into something like a contest, generally speaking, the doctor comes out a very *bad second*. The law appears to put scarcely any limits on the methods a lawyer may use in his efforts to torture and scarify the doctor who may become in any degree recalcitrant. We don't happen to have much sympathy to waste on the medical witness who shows a strong desire to favor one "side," and, at the same time, to be a little *too smart* for the lawyer.

We have no reference at present to what is known as the medical expert, who has become such an important personage through the development of modern jurisprudence. We refer, rather, to the general practitioner,

who may be called to give evidence in a case where he has examined, perhaps regularly attended, the patient. Take, for instance, an action for damages on account of bodily injuries received. It frequently happens in such suits that a number of doctors are arrayed on each side, and the character of the evidence given sometimes appears to depend on the "side" to which the witness belongs. Perhaps, to make matters worse, there may be also two or three experts attached to each of the hostile camps. We are not going to make any effort (now, at least) to give any advice to the experts. Some of these (as we have them in Canada) conduct themselves admirably, and thus reflect credit on our profession. Others appear to satisfy themselves and their respective "sides" much more fully than they do an impartial audience.

We are, in this connection, more interested in the general practitioner, especially the young one, who desires honestly and conscientiously to tell the "whole truth." This the lawyer does not always want. It may not be his duty or his business to want it. But with that we have nothing to do, excepting to consider therewith the fact that such a conflict of desires must necessarily produce a pronounced lack of sympathy (to put it rather mildly) between the two. In such a case we are anxious to see the physician come through the harrying and worrying ordeal, to which he may be subjected, in a creditable manner. As a rule, fortunately, there need be no great difficulty as far as the medical witness is concerned, if he follows the ordinary rules given by medical jurists, which we may summarize as follows :

- (1) Study your case thoroughly, investigating all the signs and symptoms.
- (2) Obtain a good general knowledge of the subject by reading the views of standard authors.
- (3) Never lose your temper, no matter what the provocation may be.
- (4) Never try to "get back" at the cross-examiner.
- (5) Make your answers as brief as possible; and, generally speaking, avoid giving reasons or theories unless specially asked for.
- (6) Show no bias towards either side. Try to be as impartial as if you were in the position of the judge.
- (7) Take plenty of time, especially when in doubt as to the nature of the question.

THE INTERNATIONAL MEDICAL CONGRESS.

THE Russian Committee of Arrangements for the next International Medical Congress at Moscow, in 1897, have already completed a large portion of the work assigned to them. We understand they have

not, as yet, decided whether there shall be one or more official languages. The question is being discussed in the medical press of Great Britain and the continent, and widely divergent opinions on the subject are being expressed. There appears to be a general consensus of opinion, however, that, if there is to be only one language, it should not be Russian. We are told by the (London) *Practitioner* that the Russian organizing committee rather favor the idea of adopting French as the one official language. After the last congress at Rome the *British Medical Journal* expressed the opinion that it was a mistake to have had four official languages (English, French, German, and Italian), and that there should have been only one, and that French. The *Practitioner* says that, as a matter of fact, very few Englishmen speak French. This statement is true, and will also apply to the English-speaking people of North America. Occasionally we receive a suggestion that Latin should be made the international language of medicine. If such were done, it would, of course, be the official language of all future international congresses. This, however, is scarcely worth discussing—as it is, in these modern days, with all our modern (be they good or bad) ideas, practically an impossibility. With reference to the next congress, we are inclined to agree with the *Practitioner*, which speaks as follows: "The common-sense solution of the difficulty, as far as the Moscow congress is concerned, is to follow the precedent of Copenhagen, and have three official languages—English, French, and German, the local tongue being excluded as not sufficiently understood by people in general."

Correspondence.

THE PATRONS' BILL.

To the President, Council, and Members of the College of Physicians and Surgeons of Ontario:

GENTLEMEN,—I beg leave to call your earnest attention to a bill to amend the Medical Act which has been introduced in the Ontario Legislature by Mr. Haycock, leader of the Patrons of Industry in that Assembly. I am induced to take the unusual course because of the extreme gravity of the situation, and because the introduction, by laymen, of an amending Act is entirely without precedent, and deserving of the closest scrutiny by the profession whose rights are seriously threatened. The Medical Act, which has been built up for the protection of the public, is threatened with destruction. The bill, if it should come into force, means practically free trade in medicine. It means a retrogression to a state compared with which the condition of the profession, prior to 1850, was order itself. It means that the competition and pressure of to-day will, if this bill becomes law, be redoubled. A calling which has at all times required much self-sacrifice on the part of the practitioners will cease to return an income for the time and labor expended.

Excessive competition is as little in the interest of the public as it is in that of the profession. Indeed, it may fairly be said that the Medical Acts have been framed not for the creation of a close corporation of the profession, but for the protection of the public from the extortions and overcharges of charlatans and empirics, and to guarantee to the people that the men who are licensed to practise medicine are competent to perform their work.

Those who are entitled to registration under this bill. (8) Subject to the provisions of section 24 of the Ontario Medical Act, every person who—

(a) Holds a diploma from any chartered university in the Dominion of Canada, or in Great Britain or Ireland, granting to such person a degree as bachelor of medicine or doctor of medicine, or any similar degree, and who

(b) Has attended the full course of lectures and complied with the requirements of the curriculum of any duly incorporated medical school or

college in the Dominion of Canada, or of any such school or college in the United Kingdom of Great Britain and Ireland, which has been approved by the Lieutenant-Governor in Council, and who

(c) Holds a certificate from the Board of Medical Education, herein after mentioned, of having passed the examination and complied with the regulations prescribed by the said board,

Shall be entitled, upon payment of a fee of \$5 to the Registrar of the College of Physicians and Surgeons of Ontario, to be registered under the Ontario Medical Act. (Rev. Stat., c. 148.)

The bill is essentially a destructive one. Sections 16, 17, 18, 20, 23, 25, 26, 27, 30, 31, 33, 34, 35, 36, 37, 38 of the Revised Statutes, 1887; sections 1, 3, 4, 5, 6, 7, 8 of the Act of 1891, and sections 6 of the Act of 1893, are repealed. Sections 13, 22, 40, 32, 45, and 48 are amended. In fact, there is but little left of the old Acts, that of 1891 being repealed except the last section, which very inoffensively says that the Registrar shall keep the register correctly, and the unimportant second section. The general tenor of the proposed legislation is to take from the Medical Council the powers which it now possesses, to fix the subjects for examination, and to hold examinations, and to hand them over to the Government under the Department of Education. It also proposes to take all fees paid for examination and fund them with the Provincial Treasurer. The chief source of income left to the College is the annual fee of one dollar (instead of two). It is proposed to make this annual amount collectable, in default of payment by the Registrar, in the Division Courts. As it would cost at least five dollars on the average to collect, this is a polite way of cutting the Council's throat. In short, it is attempted to take all real power of examination out of the hands of the profession as represented by the Council. The Board of Examiners is to be called (if this precious bill becomes law) the Board of Medical Education, and is to consist of three members of the Council, one representative of each medical school, two homœopaths, and two members to be appointed by the Government. The chairman and secretary of this board are to be appointed by the Government. All papers are to be approved by the Government—not the Education Department, but the Lieutenant-Governor in Council; that is, the whole Cabinet. Was there ever a more ridiculous proposal? The Board of Education is to decide upon the subjects in which candidates shall be examined, and the fees they are to pay for such examination. The fee for registration is to be five dollars. Persons who possessed a qualification prior to 1870, and who are now entitled to register without examination, will by this Act be deprived of that right. The mode of fixing the tariff of professional fees in the territorial divisions is materially changed. The bill proposes that the Lieutenant-Governor in Council, *i.e.*, the Cab-

inet, shall be the arbiter as to what is or is not a reasonable charge to be made for professional services. The local tariff, while proposed by the divisional association, is no longer to be submitted to the Council. It is presumed that the Cabinet knows more about what a fair charge may be than the men who are in practice. Could folly go further? Fancy medical men fixing the scale of prices for the legal profession! Would it not be equally absurd?

The power of erasure is taken from the Council. In fact, it is really difficult to discover what is left for the Council to do. A body without functions or income is not likely to survive for long. Perhaps this may be the real intent of the bill. Fraudulent advertising, habitual drunkenness, transmission of contagion or infection, violation of the Public Health Act, neglecting to register births and deaths, giving false or blank certificates of the cause of death, conviction in any action for damages for any injury caused, negligence, ignorance, or want of skill, are all and each to be grounds upon conviction of which a practitioner is to have his name erased from the register. The case is to be tried by a judge, who is vested with discretionary powers. But the relator or complainant is not necessarily a medical man. Any one can lay a charge before a magistrate. A man may thus be struck off the register for failing to register a birth if the trial judge so decrees. A man may be subjected to constant annoyance by malicious persons who choose to make charges of violation of the Public Health, or Registration of Births, Marriages, and Deaths Acts. The time of limitation of action for negligence or malpractice is extended from *one* to *two* years.

The last section of this remarkable bill cannot be done justice to by any pen save that of the gentleman responsible for its introduction. Sub-section 3 refers to the penalty for practising without registration, and for falsely pretending. The effect of this sixteenth section, if it becomes law, I leave to my fellow-practitioners to imagine and describe. Efforts will be made to place a copy of the bill in its entirety in the hands of every medical man in Ontario. Here is the section as it appears in Mr. Haycock's bill:

“ 16. (1) Any person, being a woman, who, within six months after the coming into force of this Act, produces before any local board of health a certificate signed by the head of the municipality, or by two justices of the peace, that she is a person of good character, and who proves by evidence taken on oath before such board that she has successfully performed the office of midwife in at least ten cases of confinement before the passing of this Act, shall be entitled, upon payment of a fee of \$1 to the treasurer of the municipality, to a license, under the hand of the chairman of the board, to practise midwifery in the municipality for two years from the date of such license, and the said board may at the expiration renew such license upon the production of similar evidence of good character.”

(2) Any similar license may also be granted to any person, being a woman, who after the passing of this Act applies to the local board of health of any municipality therefor, upon producing a certificate signed by the head of the municipality or by two justices of the peace that she is a person of good character, and proving by evidence taken on oath before such local board and by the certificates of duly registered medical practitioners that she has attended at least ten cases of confinement under the directions and instruction of a duly qualified medical practitioner.

(3) Every person duly licensed under this section shall be exempt from the provisions of sections 45 and 48 of the Ontario Medical Act.

Could professional outcasts and exiles seize a more favorable opportunity to wreak vengeance upon an honorable body? At a time when a set of men whose ignorance is only equalled by their lack of fidelity to the principles they were elected to support, at such a time the enemies of order inspire these men to attack our vested interests, to destroy our time-honored rights. It is for you to say if you will endure these wrongs. If you approve this iniquitous bill, do nothing. If you do not approve, write to the representative of your constituency in the Legislative Assembly to oppose it. Combination must be met by combination. If the Patrons of Industry would destroy the present Medical Act, we must fight for our rights and the public welfare. This matter is urgent and brooks no delay. Organize. Call your territorial associations together. Petition the legislature that the bill do not pass.

G. STERLING RYERSON.

60 College street, Toronto, March 19th, 1895.

MR. GAGE'S GIFT.

To the Editor of THE CANADIAN PRACTITIONER:

DEAR SIR,—Twenty-five thousand dollar gifts for benevolent purposes are not so common in Toronto that the city can afford to ignore another such gift, especially when it is donated for one of the most needed objects of the century—a consumptive hospital; and yet this is practically what the city council has done in reference to Mr. W. J. Gage's gift for a consumptive sanitarium! One would almost think by their actions that the city fathers considered that they were conferring a favor on Mr. Gage by accepting his magnificent donation. It is simply disgraceful the way Mr. Gage has been treated, and the action, or, rather, *inaction*, of the city council is calculated to throw cold water on future acts of benevolence by other wealthy citizens.

Mr. Gage has not only been generous, but he has been wise and far-seeing in his generosity, and it would have been impossible for him to have chosen a more worthy object for his beneficence.

The only condition stipulated in the gift is that the council grant a free site, and this should be done as soon as a suitable site can be found. The city should also give the same amount for its maintenance as is now given for the maintenance of consumptive patients in the General Hospital.

The sub-committee's suggestion to build a consumptive annex to the Home for Incurables is in no way in keeping with modern methods for the prevention and cure of this disease. It should be the duty of physicians to impress on the public and the city council the importance of a special institution for consumptives.

E. HERBERT ADAMS.

Meetings of Medical Societies.

SIMCOE DISTRICT MEDICAL SOCIETY.

THE twelfth regular meeting of this society was held in the council chamber, Orillia, on Wednesday, February 13th, the president, Dr. Howland, of Huntsville, in the chair. The following members were present and took part in the discussions: Drs. Howland and Ross, of Huntsville; Dr. Hanly, of Waubaushene; Drs. W. A. Ross, Smith, and Arnall, of Barrie; Drs. Alex. Harvie, Jas. N. Harvie, A. E. Ardagh, Ainslie Ardagh, McLean, Herriman, and Shaw, of Orillia; and Dr. Raikes, of Midland.

Dr. Hanly addressed the meeting, thanking the members of the association for their assistance in electing him to represent them in the Ontario Medical Council, and outlining the course he intended to pursue as their representative.

Dr. Ross, of Huntsville, read a carefully-prepared paper on appendicitis, with a history of his own case. After an animated discussion, taken part in by nearly all the members present, Dr. Ross replied.

Dr. N. A. Powell, of Toronto, formerly of Edgar, who was present as the guest of the society, gave a lengthy and most interesting address on the surgical treatment of injuries and disease of the abdominal viscera, explaining the various mechanical appliances which have been recently introduced, and which have so greatly lessened the difficulties of abdominal surgery.

Dr. W. A. Ross, of Barrie, read a paper on cancer, going very fully into the question of operative treatment, and illustrating his conclusions by histories of instructive cases.

After some discussion on a motion of the secretary's to change one of the by-laws, which was carried, the meeting adjourned to partake of a most enjoyable supper provided by the Orillia members of the association.

R. RAIKES, M.D.,

Secretary.

TORONTO MEDICAL SOCIETY.

THE regular meeting of the above society was held on the evening of Thursday, February 28th, Dr. Peters in the chair.

SARCOMA OF THE KIDNEY.

Dr. Peters showed a specimen of sarcoma of the kidney, taken from a child, a history of which he gave at the last meeting. The child died from an attack of pneumonia. He pointed out that the remaining kidney was hypertrophied. The smallness of the vessels of the pedicle were also pointed out. There was also a clot to be seen in the internal iliac, which had, he believed, formed during the act of dying. Collateral circulation must have been established, for there was no sign of interference of disturbance of the circulation in the leg on that side. Another post-mortem feature of the case was that the cæcum was found down in the pelvis. The pharynx was also shown. At the time of the dissection it could be plainly seen that this structure was ulcerated. This was, of course, the result of the diphtheritic attack.

Dr. Primrose said that it was a point worth noting—the smallness of the vessels running to the tumor. He was not aware that this condition had been referred to in the text-books. This was a point of importance in dealing with the pedicle. The point was the more interesting when it was considered that these growths were exceedingly vascular themselves. However, the blood-stream through them might, like in the liver, run slowly.

Dr. Williams asked if the death were due to the pneumonia or septicæmia. Was the clot spoken of septic?

Dr. Peters said that he did not consider that the clot was septic. He thought the pneumonia was the cause of the death. In referring to Dr. Primrose's remarks, he said that one could not draw conclusions merely from the observation of two cases with regard to the size of the vessels.

MESENTERY.

Dr. Primrose showed photographs of a mesentery he had found in a dissecting-room subject, in which the primitive condition had persisted. He illustrated, by means of charts, the various stages in the development, and the position of the alimentary canal and the peritoneum.

Dr. Wishart said that he had not observed the condition in his dissections. He had seen one case where the mesentery for the descending colon was very complete.

TUBERCULOSIS OF THE ELBOW.

Dr. B. E. Mackenzie showed an arm that he had removed for tuberculosis of the elbow. The family history was good. It commenced about

six years previously from an injury. From some successive injuries the inflammatory action was renewed after some recovery. The patient reported that a Leipsic physician treated it by injecting something into it. Some improvement followed. Dr. Mackenzie treated it first by using a plaster Paris splint, which afforded considerable relief. But as the condition persisted, the patient expressed a desire to have something more radical done. The decision was to do an excision if, after examination, that was considered to be sufficient, but amputation if there were any doubt. Amputation was done. The subsequent history was very satisfactory.

The second specimen was that of a leg from a boy who gave a bad family history, and a bad personal history as regards tuberculosis. The plaster paris was resorted to in the commencement of the attack, but, in spite of treatment, sinuses formed. These were curetted, and the wounds dressed with iodoform gauze. He got along tolerably for a time, but finally became so bad that amputation was resorted to. Not only the knee-joint, but the shaft of the femur, up as high as the upper third, where amputation was done, was affected. There was marked muscular atrophy in this second case, which was not a feature of the first.

Dr. Primrose pointed out that it was often difficult to know what to do in these cases—whether to excise or to amputate, and, if amputation were decided upon, how high up to go. There was a difference between inflamed bone and diseased bone, and in operating one could not be sure of always going above the diseased portion.

Dr. Cameron pointed out that in these cases of tubercular arthritis, although the cancellous portion of the bone might be affected, it did not usually pass beyond the epiphyseal end; but there frequently was an affection of the medullary canal that might be termed peri-tubercular. Under these circumstances, one might operate nearer to the disease than would appear from the medullary cavity alone, provided one could get a healthy covering for the end of the bone.

Dr. Peters pointed out the very marked difference which existed between the two specimens—in the arm the shaft appearing perfectly healthy, in the leg there being marked atrophy of the compact tissue. He pointed out that the amount of disease in the knee that would justify amputation would perhaps only justify excision in the elbow.

Dr. Wishart presented some frozen sections, and pointed out some very interesting anatomical features in connection therewith. The relations of the various organs and structures were very beautifully shown. The members spent some time in examining them.

Dr. W. Oldright detailed the remaining history of a case he had reported at a previous meeting of spina bifida. He had treated the patient

by injecting Morton's fluid. The treatment was not successful, and the child died. He removed the tumor, post mortem, and presented it for examination.

Dr. H. H. Oldright pointed out the various features he had observed in its structure.

Regular meeting, Thursday, March 7.

President Dr. Geo. A. Peters in the chair.

DISLOCATED KIDNEY.

Dr. W. J. Wilson, of Richmond Hill, reported a case in practice. It was that of a woman who, while engaged in hanging out a washing, slipped, dislocating the right kidney. It could be palpated easily, and was swollen and tender. In the urine were blood cells, pus cells, and different varieties of epithelium. After rest in bed for a few days, the symptoms disappeared, and she gradually recovered her usual health. He had not heard of these cases being detected so soon after the accident.

Dr. W. J. Gregg described the method of reducing a dislocated kidney, and the method of holding it in place afterwards. The swelling and congestion could be explained by a twisting of the pedicle.

Dr. Wilson said his experience was that these movable kidneys were very difficult to hold in position with the hand. He could hardly see how a belt and pad would do so.

Dr. Carveth detailed a case in which the element of sepsis was present. The woman had had pains and digestive disturbances for six months, and the kidney was freely movable. He could not account for the septic symptoms. The temperature had been ranging between 99° and 103° for the past seven weeks. No bandage would keep the kidney in place. He had found the same condition of the urine as Dr. Wilson had described, but upon using a catheter to withdraw it he discovered nothing foreign.

Dr. Peters reported a case that had been referred to him for operation; but as the kidney was not movable more than those of the first degree as described by Erichsen, he did not operate. The only symptom was pain when the patient moved about. He had a belt and rubber pad applied.

DYSMENORRHŒA.

Dr. A. A. Macdonald then read a paper on dysmenorrhœa. He pointed out that while little advancement had been made in regard to the classification of the causes of this trouble, that was not the case as regards treatment. He described the various symptoms of the various forms, and the treatment he had found useful therein. For the neuralgic form, he used rest and warmth, with local heat. Chloral, bromide, hyoscyamus, phenacetin, antipyrin, and cannabis indica were all useful in this form. The

cannabis indica should be shoved. Much care should be used in the giving of whiskey or morphine. Much could be done in a constitutional way during the inter-menstrual periods. Constipation, which was a usual accompaniment, should be overcome, and all the secretions made to act freely.

The congestive form was next referred to. In some cases scarification was advisable ; sedatives were also of benefit.

The general system was to be looked after. Tainponade with glycerine and belladonna were recommended.

In the membranous form dilatation and curettage were advised.

The constant current was also advocated.

In the mechanical form the cause should be ascertained, and the cause removed. He alluded to the difficulty of treating this form in unmarried ladies.

The essayist then showed various dilators, and pointed out their particular merits.

Dr. Wilson spoke of the value he had found from acting freely upon the liver in the congestive variety. Hammamelis and hydrastis had given satisfaction in his hands.

Dr. Webster asked what relation should the time of treatment bear to the menstrual periods.

Dr. MacMahon spoke of a case where he proposed to operate for its relief, but discovering that the woman had a marked mitral stenosis, and fearing the effects of pregnancy on this condition of the heart, desisted from interfering.

Dr. Macdonald said that he would not commence active treatment interference until a few days after the flow, and would not treat within a day or two before the flow. He would not, he thought, have been as afraid of treatment as Dr. MacMahon, since he had had a number of such cases who had done all very well, and stood the strain of pregnancy without much danger or discomfort. In reply to a question by Dr. A. F. Mackenzie, he said that the dose of cannabis indica varied. About fifteen minims of the tincture three or four times a day was an average dose.

APPENDICITIS WITH PERINEPHRAL ABSCESS.

Dr. Atherton then read the history of a case of appendicitis with perinephral abscess. The history of the case pointed to appendicitis, the non-operative treatment being followed in the first instance of the attack.

On January 17th there was more or less discomfort in the right loin. There was some gurgling over the cæcum. Temperature 100°. February 3rd there was a half-ounce of pus discharged in the stools. Did fairly well for a short time.

February 5th, temperature 101°. Signs of some serious trouble began. This was two months after the commencement of the illness. On operating, the appendix was found buried in a mass of fibrinous material. It was ligatured and removed. Two faecal concretions were in it. Stump was treated with carbolic acid. There was thickening and induration of the tissues behind the caecum. Iodoform gauze was introduced and an end left as a drain. The evening following the operation there were signs of improvement, but in a few hours after symptoms of collapse presented themselves, and the patient died.

Post-mortem showed the intestines adherent, and other general signs of peritoneal infection. The most important feature was the presence of an abscess around the right kidney.

Dr. Atherton maintained that the abscess was due to the appendical trouble, and would not have occurred if operation had been done early. He was unable to make anything abnormal out in that region at the time of the operation; it was probably hidden by the thickening referred to before. He believed more and more in the necessity of early interference in these cases.

Dr. Greig detailed the history of a case. The patient was a boy 12 years old, whose urine was found to be putrid, markedly alkaline, full of mucus and pus. There was no frequency of micturition, no increase in the amount of urine, and no stone present. There were no symptoms of pain or discomfort. There might be a condition of atrophy. Washing out with boracic acid and bichloride had done little good.

Dr. Macdonald said he thought it was a case of chronic cystitis, and recommended washing out with stronger solutions, and oftener.

Dr. Atherton suggested that there might be encysted stone.

Dr. Wilson thought it wise to get rid of the residual urine.

Dr. Peters suggested median cystotomy and drainage if it baffled the ordinary treatment. He described his method of washing out the bladder.

Dr. Cameron said that as the bladder was an abdominal organ in children, the suprapubic method of drainage would be preferable to the lower method.

Dr. Gregg closed the discussion.

The meeting then adjourned.

Book Reviews.

OBSTETRIC SURGERY. By Egbert H. Grandin, M.D., Obstetric Surgeon to the New York Maternity Hospital, Gynæologist to the French Hospital, etc.; and George W. Jarman, M.D., Obstetric Surgeon to the New York Maternity Hospital, Gynæologist to the Cancer Hospital, etc.; with eighty-five (85) illustrations in the text and fifteen full-page photographic plates. Royal octavo, 220 pages. Extra cloth, \$2.50, net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

The authors correctly claim that the keynote of this volume is election in obstetric surgery. The importance of intelligent election and careful preparation in respect to obstetric operations is more fully realized now than it ever was in the past, and the tone of the work in this particular is all that could be desired. The general style of writing is exceedingly dogmatic, and is, perhaps, better for teaching purposes on that account. Those who adopt such a style, however, in speaking to the profession, instead of their undergraduate classes, ought to be particularly strong as authorities, and very careful to avoid inaccuracies. Our authors may be sufficiently strong, but they are certainly not always accurate. The book taken altogether, however, is very readable, and contains much that is excellent, expressed in a crisp, practical way that is sure to leave its impression.

The directions as to asepsis and antisepsis are excellent; and though there is considerable repetition in connection with the descriptions of various operations, we think they are none the less valuable on that account. The chapter on obstetric dystocia and its determination is very good. It is very well shown that minor deviations from the normal pelvis are more difficult to discover than those that are gross. One might possibly wonder what the authors mean by the word, conjugate: it is certainly not correct to apply the term (meaning, as it does, the small axis of an ellipse) to the antero-posterior diameters of the cavity and outlet. Perhaps the authors do not mean exactly what they say in the following words: "The corollary is that in case of abnormal pelvis the aim of the attendant should be to guide the longest diameters of the foetal head into the longest diameters of the pelvic canal." The rules relating to artificial abortion, particularly in cases of pulmonary cardiac and renal disease, are rather vague. The operation is, from many points of view, so decidedly objectionable, that one should be exceedingly careful in recommending it to the profession. In speaking of renal disease, we find the following: "In a given case, if under absolute milk diet and the administration of iron and diuretics, the amount of albumin in the urine do not decrease, artificial abortion should be resorted to." The authors should recog-

nize the fact that this is not universally accepted as the correct way to treat the albuminuria of pregnancy due to nephritis. This plan of treatment was discarded some years ago in the Burnside Lying-in Hospital, of Toronto, because it was thought that the administration of iron and diuretics did more harm than good in the majority of such cases, and that a modified milk diet was quite as good as the absolute. We have no decided objection to the operation for the induction of abortion as described by our authors, but we think that the dilatation of the cervical canal to the extent of "an inch and a half to two inches," as recommended, is not always quite safe. In any case, the simple method of inducing abortion by puncturing the membranes with a uterine sound should not be entirely ignored in such a work as this. The description of Pelzer's method of inducing premature labor by injections of glycerine is inaccurate, and would favor the injection of air into the uterus—the very thing the authors caution us against.

The directions as to the application of the forceps are generally good ; but what means the following? "Carcinoma of the cervix, inasmuch as the cervix is rendered so pliable, is a contraindication to the application of forceps." The chapter treating of version is exceptionally good. The descriptions of the major operations and the considerations for election are excellent, as a rule ; but the description of symphysiotomy might be a little more definite, especially in regard to the two recognized methods—the subcutaneous and the open. The closing chapters on the surgery of the puerperium call for nothing in the shape of adverse criticism.

Upon the whole, this is a good book. The good features far overbalance the deficiencies, to which we have given, perhaps, too much prominence. The authors have shown considerable originality and force, but, taken altogether, there is evidence of too much haste in mixing up in a heap a lot of good things. A little less individuality, some slight recognition of the fact that there are other obstetricians alive in the universe, a correction of some errors in details, a little *touching up* of the English here and there, and some commonplace proofreading, would considerably improve the next edition.

Medical Items.

DR. CHARLES BIRD has located in Barrie.

DR. A. S. THOMPSON, of Strathroy, has been appointed coroner for East Middlesex.

DR. D. A. MCCRIMMON, of Underwood, has removed to Ripley, where he will practise in the future.

DR. K. N. FENWICK, of Kingston, has presented to the General Hospital of that city the sum of \$2,500, to be expended on the construction of an operating theatre.

DR. R. M. STEPHEN, of Manitowaning, has been appointed medical attendant of the Indians of Manitoulin Island and the north shores of Lakes Huron and Superior.

DR. ACKLAND ORONHYATEKHA, who has been taking a post-graduate course in Europe during the past year, paid a visit to his friends in February, but has returned to complete his course. He will likely remain abroad another year.

DR. L. M. SWEETNAM, of Toronto, returned to his home March 2nd, after his stay of several weeks in Baltimore. He went away partly for a rest, but he spent most of his *resting hours* in Johns Hopkins Hospital, which was for him apparently a good place to recuperate, as he has come back full of health and vigor.

OBITUARY.

THE name of the medical student in Trinity Medical College who died, February 14th, was Mr. T. H. Pearce. In our last issue there was an error in our announcement of the death.

JOHN WHITAKER HULKE, F.R.S.—Mr. Hulke, President of the Royal College of Surgeons of England, and senior surgeon to the Middlesex Hospital London, died, February 19th, after a short illness, from influenza, complicated by broncho-pneumonia.

DR. CLARKSON FREEMAN.—Dr. Freeman, of Milton, was engaged in active practice for about forty years. He graduated in the University of Toronto in 1853. Although a busy practitioner he always took an active interest in local politics and educational matters, and was highly esteemed by all classes. He enjoyed fairly good health during the winter, and appeared to be well and in good spirits on March 1st, when he was suddenly seized with vomiting, and died in a few minutes.

DR. GEORGE DEAN MORTON.—Many years ago Dr. Morton was one of the best known and most successful physicians in North York and neighboring

counties. He received his license to practise medicine from the old Medical Board in 1852, and settled in Holland Landing, where he remained about four years. He went to Bradford in 1856, and was there engaged in a very large practice until 1881, when he retired from active practice and removed to Toronto, where he lived up to the time of his death. He died at his residence, 563 Church street, February 17th, at the age of 73. He was very highly esteemed by a large circle of acquaintances and friends, who, one and all, entertained a high respect for his ability, his honor, and his integrity.

GEORGE WRIGHT, M.A., M.B.

Dr. George Wright was for many years a prominent and well-known physician of Toronto. He was a graduate in Arts of Victoria University (1862), and in Medicine of the University of Toronto (1867). After completing his medical course he settled in Toronto, and in a few years acquired a good reputation and a large practice. He was also well known as a prominent Conservative, and would probably have been one of Toronto's representatives in parliament if he had agreed to accept a nomination for the western division. He was a large, handsome man with good presence, and a remarkably fluent and eloquent speaker. His marked abilities brought him speedily to the front in all organizations with which he was connected. He was for many years a member of the Public School Board, and at one time its chairman. He took a deep and active interest in the formation of the Toronto Public Library, and was for a time a member of the board. He was for many years an enthusiastic Oddfellow, and was greatly respected by his fellow-members in Toronto, and was highly honored at various meetings of the Grand Lodge, of Ontario of which he was elected Grand Master in 1873. He was a member of the corporation of the Toronto School of Medicine, and a member of its teaching staff for many years, both in the school and at the Toronto General Hospital, where he was a visiting physician. When the Medical Faculty was established in the University of Toronto in 1887, he was appointed one of the lecturers in medicine. It unfortunately happened, however, about this time that his health became poor. He had an attack of diphtheria, which left profound debility from which he never properly recovered. His bronchitis, from which he suffered to some extent from boyhood, grew worse, and was complicated by asthma and dilatation of the heart. It was thought by himself, and the physicians who attended him, that a change of residence might cause an improvement in health; and in consequence he went to California with his family in 1888, and remained there until the time of his death. The change of climate, unfortunately, did no good, as he did not recover his strength in any way. He suffered much for many years, especially from the asthma, and at many times was confined to his bed for weeks at a time. The heart disease is said to have been the immediate cause of his death, which occurred, March 10th, at his home in Redlands, a small village near Los Angeles, California. A widow and one son survive. He was 57 years of age. The genial, jovial, big-hearted man; the scholarly, eloquent, and sometimes fiery speaker and debater; the kindly and loving physician; the true and generous friend—George Wright that was before bodily ailments wrecked him physically—will long be remembered by his numerous friends of olden times.