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DRY LABOR.*

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Have you ever been in St. George's Chapel, Windsor Castle? If not, come in with me to one of its lower corners and look at something sadly interesting from an obstetrical standpoint—the cenotaph of the Princess Charlotte. This monument, built in memory of one of England's most dearly beloved women, serves also as a memorial of the saddest obstetrical calamity recorded in British history. All England, in 1817, was waiting for a happy termination of the Princess Charlotte's pregnancy. The membranes were ruptured on Monday at 7 p.m. Labor pains followed soon after and continued in varying degrees for fifty hours. There is every reason to suppose that in this "dry" labor the uterine contractions were accompanied by more than the average amount of suffering. The first stage probably lasted about ten to twelve hours; the second stage thirty-eight to forty hours. The three distinguished physicians in charge decided that "giving assistance was quite out of the question," as the "labor proceeded regularly although slowly. The child was born without artificial assistance." Soon after delivery there was post partum hemorrhage and hour-glass contraction and the placenta was removed by the hand introduced into the uterus. In two hours she became "sick at the stomach, had noises in her ears, became talkative and had a frequent pulse." In another hour symptoms of pulmonary thrombosis occurred. Patient died in a few minutes.

It is somewhat difficult to realize that this sad tragedy was enacted in England, the birthplace of the midwifery force,

* Read at meeting of Ontario Medical Association.

which has been invented two hundred years before. However, I do not wish you to get the idea that the attending physicians did nothing. They were, in some respects, most strenuous. They carefully prepared their patient for her severe trial by lowering her organic strength by bleeding, aperients, and low diet; and they tried to resuscitate her dead baby.

In considering such a report we, the wisemen of this intelligent era, might think we could have done better. Well, as we could not by any possibility have done worse, it may be fairly assumed that we should have done better. Let me ask a question, however: How many of us to-day can manage, in a thoroughly satisfactory manner, an ordinary case of "dry" labor? Very few, if any, I fear.

The direct references to the subject in our text-books are of the most meagre description. We are told that in certain cases the membranes rupture early, causing a dry labor. In such a case the parts must be dilated by the hard unyielding presenting part instead of by the bag of waters. Such labors are tedious and painful. Lacerations of the soft parts are apt to occur and the use of the forceps is frequently necessary. I wish to-day to go a little beyond these vague statements, and speak somewhat definitely of the conditions present, the danger to be feared, and the proper treatment to be adopted.

The term "dry," as applied to such labors, is unscientific, and to a certain extent misleading. I shall consider a dry labor as one in which the membranes are ruptured, and the waters evacuated before the onset of labor during early uterine contractions, or during the first stage of cervical dilatation. In other words, the term "dry" simply refers to premature rupture of the membranes, and discharge of the liquor amnii. If any portion of the parturient canal (especially the mucous membrane of the vagina) becomes hot and dry, that condition should be considered as one of the complications, and not as an essential feature of the "dry" labor.

DANGERS.

The following are some of the dangers to the mother:

Exhaustion from long continued pain.

Rupture of the uterus.

Laceration of the cervix and vagina.

Injury to the pelvic floor.

Laceration of the perineum.

Various forms of fistula.

Irregular contractions of the uterus, "hour-glass."

Post partum hemorrhage.

Pulmonary thrombosis.

Septicemia.

The dangers to the child are chiefly: Asphyxiation, meningeal hemorrhage.

Let me call your attention to some of the elementary facts connected with the mechanism of uterine expulsion.

Physiologists explain to us that every muscle in the body has an opponent, and that, generally, the flexors and extensors are opposed to each other.

The muscular fibre which shortens during contraction does not lengthen after contraction, except by direct action of its opponent.

In the uterus the opponent to the muscular fibres is not a muscle, but the liquor amnii, contained within the membranes, acting by hydrostatic pressure.

Before labor the muscular fibres, after contraction, are forced to their original length by the pressure of the liquor amnii.

After labor commences, but before rupture of the membranes, the internal os begins to open and the annion is forced partly into the cervical canal. The resisting pressure is thus lessened, and the muscular fibres are not stretched to their original length after the contraction, but become gradually shortened by successive pains. This is partial retraction.

We have, also, the results of uterine polarity, in consequence of which the lower zone and cervix relax while the fundus of the uterus contracts. Such relaxation does not, in itself, cause dilatation, but renders the lower zone capable of extension.

After rupture of membranes there is generally a stoppage, for a time, of the contractions.

Premature rupture of the membranes destroys the proper equilibrium of the various forces in a way not easily understood.

Generally something like a storm arises, accompanied with irregular contractions, and, perhaps, tetany of the uterine walls, spasms of the cervix, and pains, sometimes intolerably severe, with diminished expulsive force.

These great changes in the expulsive forces have much more to do with the difficulties connected with the progress of the labor than the shape of the hard presenting part as compared with a bag of water.

I will now give a history of a case occurring in my practice many years ago:

Primipara. Full term. Membranes ruptured Thursday morning. Labor pains commenced the following Sunday morning. The contractions soon became strong and were accompanied by intense pain, amounting to agony at times. Occiput posterior. Administered chloroform. Introduced hand and rotated occiput to the front. Applied forceps; delivered with difficulty. Was mortified to find that the occiput had slipped

to the rear while I was applying the blades of the forceps, and there was a bad rupture of the perineum and pelvic floor.

The treatment of this case was, in many respects, anything but good. The labor occurred at a time when I had rather hazy ideas as to the proper treatment of dry labors. In the first place, I did not take sufficient care of the patient during the two days intervening between the rupture of the membranes and the onset of labor. Next, I administered chloroform myself, chiefly from a desire to save my patient the payment of an extra fee. Next, I gave chloroform badly. Finally my treatment of the occipito-posterior position was faulty.

There was no nurse present, the people were poor and I tried to do the best I could without assistance. In recent years I have not attempted anything of this sort. I desire an assistant who will give all his attention to the administration of the anesthetic, which I wish done in a certain definite manner which I will describe later. Fortunately, in this case, the mother and child both did well, and I was able to repair the injuries to the pelvic floor and perineum by immediate operation.

I will now pass on to speak of later work, giving especially the results of my observation during the last three years. Before doing so, however, allow me to return to the case of the Princess Charlotte and express certain opinions from a clinical standpoint.

After the rupture of the membranes at seven o'clock there was a pause followed shortly by pains which, during the latter part of the night, were very severe. The cervix was probably dilated at about seven o'clock Tuesday morning. Patient was then very tired and almost exhausted. She urgently required assistance, and should have been delivered about eight or nine o'clock, or by eleven o'clock at the latest. Pains were less severe during Tuesday, but became strong again about midnight. Delivery was expected every hour during the first half of Wednesday. Child died, probably during this (Wednesday) morning. Uterine contraction strong, with great suffering Wednesday afternoon and evening. Child born at nine o'clock.

The chief cause of the delay after Tuesday morning was, probably, faulty position of the head, the occiput being posterior. How do I know? you may ask. Well, I do not know, but I feel almost certain that such was the case. Why, I will tell you later. After delivery the patient suffered terribly from exhaustion and shock. There was hour-glass contraction and considerable hemorrhage. There was probably serious injury to the pelvic floor, laceration of the cervix, and a certain amount of necrosis of the tissues, subjected to the prolonged pressure, which would have resulted in a fistula, or two or three fistulæ,

had the patient lived. You may think some of these statements are founded on mere guesswork. To a certain extent this is true, but I feel certain that the guessing is nearly correct. We will probably all agree that the patient's life should have been saved, and her suffering should have been greatly lessened.

Before going into details I wish to tell you, in a general way, some things founded on my observations in connection with the last twenty cases I have met.

A small proportion of dry labor cases progress favorably even when membranes have ruptured two to seven days before the onset of labor.

Generally the labors are tedious and painful far beyond the average.

The tremendous storms which sometimes suddenly and unexpectedly arise in connection with the uterine contractions are occasionally accompanied by pains amounting to agony which is unendurable for any length of time.

In many cases where the patient's lives are saved much injury is done through hemorrhages or injuries to the parturient canal.

By judicious treatment the lives of mothers and children can generally be saved, and the sufferings of the mothers can be greatly diminished.

In a large majority of cases the occiput is turned to the rear, and remains so unless the malposition is rectified artificially.

In a small proportion of cases of these occipito posterior positions, the occiput goes to the front naturally.

In a certain proportion of dry labors there is some pelvic deformity, generally contraction of the brim.

I will now refer to a few cases illustrating some of these points:

W. Goldie's patient. Membranes ruptured shortly after onset of labor, and before dilatation of the cervix. Pains very severe, had lasted from morning until half-past four p.m. when I saw her. Patient nearly worn out. Os partially dilated but rather rigid. Vagina not well dilated. Perineum rigid. Chloroform administered, vagina and cervix dilated by fingers and hand; perineum still somewhat rigid. Forceps applied at six; delivered at 6.30; occiput to the left front. Bad rupture of the perineum through sphincter ani and serious laceration of the pelvic floor. Both were repaired by immediate operation.

In this patient, although the membranes were ruptured fairly early, the head acted as a ball valve so well that the liquor amnii was not all evacuated until the cervix was partially dilated, but was evacuated too soon to allow an easy normal labor. I think it might have been better if greater effort had been made early in the morning to diminish the pains, but at

that time no physician was present. You will notice that we had an occipito anterior position. I wish to state, however, in this connection what I will repeat later, that this was the exception and not the rule in cases where early rupture of the membrane occurred.

J. G. Caven's case. Pregnancy advanced eight months. Uterus distended from hydramnios. May 3rd, pain in abdomen considerable; May 7th, 8th, 9th, pain severe with some tetany of the uterus, relieved by hypodermics of morphine. May 10th, labor commenced; seen by Crawford Scadding in consultation. May 11th, noon, first seen by myself. Uterus in a condition of tetany; membranes kept continuously tense; slight dilatation. Membranes punctured. Saw her again in the evening. During afternoon forceps applied and slipped. The pains had been very severe. We presume, from the slipping of the forceps, that there was some abnormal head presentation, the nature of which we could not for a time discover. Chloroform administered. Occiput found to be towards the left posterior, rotated to the front by the hand; forceps applied; child delivered.

The puncture of the membranes in this case changed it from an ordinary difficult labor to the so-called "dry" labor. When there is tetany of the uterus it is not well to evacuate the amniotic fluid too suddenly. Rapid escape of the waters may be partially prevented by using the fingers or hand as a plug. It might have been better to administer chloroform earlier with the object of relieving the uterine spasm, and puncture the membranes while the patient was still under the influence of the anesthetic. I may say that I know of no treatment for a patient with such symptoms which is entirely satisfactory to me.

I had noticed years ago that among the many varieties and complications of tedious dry labor, malposition of the head was somewhat common. I have recently, however, reached a definite conclusion that in nearly all cases of pronounced dry labor, that is, when the membranes have ruptured before the onset of labor (especially sometime before), the occiput points to the rear. Whether this faulty head position is the cause or effect of the evacuation of the liquor amnii, I do not know.

In the early part of 1899 I happened to have three difficult dry labors within a short time, two of them being the worst I ever saw. In each the occiput was posterior. I then went over some of my notes, and found that such complication was more common than I had thought. I have studied the matter somewhat carefully since, and will give you some statistics later.

The following report illustrates what I have already referred to as the great danger which sometimes arises from the extreme pain.

Primipara. An educated, refined, and somewhat delicate and small woman, graduate of the Toronto General Hospital Training School for nurses. Married to a physician living in Ontario. Came to Toronto for her accouchement, and was staying at the house of a friend before coming into a private ward at the Burnside. The membranes ruptured one morning, without warning, and she at once went to the hospital. Walked about a great deal during the day with the hope of bringing on labor pains. The following day she did more walking until she became weary, and yet no pains appeared. About eight in the evening she was lying on a couch, but got up somewhat hurriedly and went into the next room to look for something she wanted. She was then seized with severe pains. Dr. Smith, the resident interne, and Miss McKellar were upstairs looking after a patient suffering from post partum hemorrhage, and did not get down stairs to our patient for about half an hour. I was sent for, but did not reach the hospital until nearly ten o'clock. I found the patient exhausted, and suffering so terribly that I feared she would go into convulsions, notwithstanding the fact that a little chloroform had been administered. I have since been told by Miss McKellar that she never before nor since saw a patient suffer such agony for an hour. I ordered chloroform to be administered to the surgical degree as rapidly as possible, while I was preparing. I introduced first fingers, then whole hand, into the vagina, dilated the cervix with fingers and hand, rotated so as to bring occiput to the front, applied the forceps and delivered, operation being completed at eleven o'clock. The patient made a good recovery.

I want you to notice especially, in connection with this report, that great efforts were made by Miss McKellar, Dr. Smith, and, to some extent, myself, to get the woman to exert herself as much as possible with the hope of hurrying the onset of labor pains. I have lately come to the conclusion that such efforts are decidedly injurious. I think that the patient should keep as quiet as possible, and, generally, in bed. I would not say that it is always necessary for a woman to remain constantly in bed, especially when the membranes rupture many days before labor commenced; but I certainly think that she should keep as quiet as possible, and not do anything which is likely to make her tired. I think that, in this instance, the terrible nerve storm which attacked this delicate little woman, was to some extent due to the fact that she was partially worn out before the pains commenced.

Kennedy McIlwraith's case. Primipara. Membranes ruptured a week before labor. After onset of labor pains went on fairly well. Child expelled normally with occiput to the front. The labor would have been quite uneventful except for the accident of a somewhat bad rupture of the perineum, which was restored by immediate operation.

I mention this case simply to show that what one might call an extreme form of dry labor may occur without any serious complication.

Primipara at Burnside. Labor forty hours. Liquor amnii discharged thirty hours before delivery. Occiput posterior. Under an anesthetic hand introduced into the vagina and unsuccessful effort made to bring the occiput to the front. Applied the forceps, delivered, occiput remaining posterior. I may say that I think the patient, in this case, was not well managed, and would not be treated in the same way to-day. Without going into full particulars I can tell you briefly that she should have been delivered about ten hours earlier instead of waiting until the soft parts were fully dilated and the head jammed down in such a way that rotation was impossible. Chloroform should have been administered sooner, the parts should have been dilated artificially, malposition corrected, and the child delivered by forceps.

Before speaking of treatment I wish to refer to a few points in connection with my last twenty-one cases. In eleven there were difficult occipito-posterior positions; in five there were occipito-posterior positions with natural rotation of occiput to the front; in five there were occipito-anterior positions. I am not certain as to the exact truth in the last two sets of cases, that is, the cases of occipito-posterior positions which rotated naturally to the front and the ordinary occipito-anterior cases. There must generally, or frequently at least, be some doubt whether an occipito-anterior position was not originally an occipito-posterior. By external examination we can nearly always discover at once whether the occiput points to the left or right, but we cannot always decide with certainty as to whether it points to the front or the rear. By internal examination we cannot get any information on this point in a fairly large proportion of cases early in labor because, we cannot reach the presenting head.

In difficult occipito-posterior cases the occiput was rotated to the front manually in seven cases and kept in such position until the forceps were applied. The occiput was manually rotated to the front, but slipped to the rear again while the forceps were being applied, in two cases. The occiput could not be rotated to the front without too much violence in two cases.

TREATMENT.

Before giving definite rules as to treatment, I will make a few clinical remarks regarding two cases occurring within the last month.

A. B., I. para. Membranes ruptured at 9.30 a.m. Seen by me 10.45 a.m. Patient had had no pains. By external examination the back of the child easily discovered on mother's right, and slightly posterior. Within a few minutes I was able to make the following diagnosis. Dry labor, head presenting in second or third position. By internal examination I could make out absolutely nothing as to presentation.

I refer to this particularly because I fear that examination during pregnancy and labor by external abdominal palpation is not employed in this Province to nearly the extent that it should be. This particular case furnishes an instance, by no means infrequent, of the vast amount that may be learned in the easiest possible way by external examination.

I have made my diagnosis, in part at least. What is my prognosis? The condition is serious, I think of the various dangers to which I have alluded, and I desire to avoid them. I have no idea that I can make the labor easy, but I feel that I can guard against most of the dangers, if not all. I order rest and quiet as much as possible. The patient told me she would like to get up "to look after a few little things." I agreed at once, largely because I did not wish to lay down iron rules which might cause some exaggerated views as to dangers, and thus cause alarm in the patient. At the same time I told husband and nurse I wanted none, or as little as possible, of that "moving about" which is so dear to some midwives and accoucheurs. She got up, put on a wrapper, looked after her "few little things" and returned to her bed. An enema was then administered. When slight pains commenced at 1 p.m. three doses of chloral were given at intervals of twenty minutes, and appeared to afford some relief. At 3 p.m. some dilatation of the os, occiput to the right posterior. At 5 p.m. a little chloroform during pains; occiput apparently coming to the front, uterine contractions accompanied by severe pains. At 6 p.m. chloroform almost to surgical degree; occiput found to be anterior, os fairly well dilated. Chloroform to obstetrical degree another hour. At 7 p.m. chloroform to surgical degree, forceps, easy delivery. Placenta separated in about fifteen minutes, expressed in twenty minutes. Uneventful recovery.

In this case it appeared to me that the rest, the chloral and the chloroform, all did good. In addition, I think the applications of the forceps and delivery fairly early prevented spasm of body or neck of uterus and also the nervo-muscular storm

which might have ensued if operative interference had been delayed for one or more hours.

III. para. Pains commenced at midnight, membranes probably ruptured in about half an hour. Saw her first at 1.45 a.m. Nurse gave her a hot bath and enema. The patient was then kept quiet in bed. I do not wish you to think that I consider that in all prolonged labors the patient should be kept constantly on her back in bed, but I think it is never wise to put the patient through any vigorous course of gymnastics, walking or otherwise, for the purpose of bringing on labor pains. I have a firm conviction, however, that in all cases of dry labor it is especially important to keep the patient as quiet as possible without going to any absurd extremes in the matter.

I refer especially to this point on account of the fact that many of our best and most conservative obstetricians have laid down rules directly opposite to those which I am now giving. For instance, Galabin, one of the best obstetricians in the world, says that in the interval between pains the patient should be "up and moving about as much as possible."

Pains became fairly strong about three o'clock and were accompanied by much suffering. At 3.30 and 3.45 chloral given in fifteen grain doses. After four, pains were exceedingly severe with very short intermissions. The chloral had done absolutely no good. What should one do now? Would it be well to keep the patient again in a hot bath and then give her a hot douche, for instance, a solution of lysol, for some fifteen or twenty minutes? No. Under such circumstances the hot bath and the hot douche are absolutely worthless, the storm is coming on and will soon be in full force unless you act promptly and vigorously. At 5.30 chloroform given to the surgical degree by Dr. Hutchinson. Chloroform had a marked influence on cervix, vagina and perineum. Parts were dilated by the hand. In a few minutes forceps applied; easy delivery. Mother and child both did well.

After what I have already told you in connection with these cases which I have reported, I may give my general directions as to treatment somewhat briefly.

DIRECTIONS AS TO TREATMENT.

Put the patient in a hot bath and administer an enema. I need say nothing special as to these procedures because they should be carried out as a matter of routine in all cases of labor.

Keep the patient quiet in bed. While it is not necessary to consider this an absolute rule I think it well for you to bear in mind the fact that excessive fatigue, or even a slight amount of weariness, may do considerable harm in all cases of dry labor, as I have before pointed out.

Give chloral in all cases of dry labor, as soon as the pains commence. In those cases where the membranes rupture days before the onset of labor it may be well to give two or three doses of chloral about bedtime. As directed years ago by Playfair, give fifteen grains every fifteen or twenty minutes for three doses.

Give chloroform to the obstetrical degree when the pains become very severe. It is not easy to give any definite rule as to how much chloroform should be administered in such cases. We must always bear in mind the fact that the administration of large quantities of chloroform may be followed by very serious results, especially by post partum hemorrhage. Having this in view we ought to be exceedingly careful about the administration of chloroform early in the first stage or perhaps at any time in the first stage.

I have already referred to certain cases in which the dilatation could be very much hastened by manual interference while the patient was fully under the influence of the anesthetic; but one does not like to give much chloroform when the os is very slightly, or not at all dilated.

If it happens, however, that you see a patient who has been in dry labor for many hours, and find that she is considerably exhausted, and that there is, at the same time, spasm of the cervix or Bandle's ring, or of the whole body of the uterus, chloroform may be administered as follows: Administer chloroform to the surgical degree perhaps for twenty minutes. The patient may shortly afterwards waken, feel much refreshed, and the spasm may be greatly or wholly relieved. In other cases it may be well to give chloroform for a short time, followed by hypodermic injection of morphine, allowing the patient to have a comfortable sleep, after which the condition will be found to be greatly improved.

Make it a rule always to terminate labor as soon as possible even when there is considerable rigidity of the perineum, vagina and cervix. Remember, as I have before told you, the administration of chloroform nearly always makes a vast difference; the parts become, if not dilated, much more dilatable or stretchable than they were. After the patient is completely anesthetized introduce, first, fingers, then hand slowly into the vagina. Dilate as rapidly as you can without using any force which is apt to injure the parts. Then dilate the cervix sufficiently to allow the hand to pass into the uterine cavity.

MANUAL ROTATION.

Seize the head between the thumb and the one side and the fingers on the other, and rotate the occiput to the front; at the same time, with the external hand push the shoulder in the

same direction in which you have rotated the occiput. When, as is most commonly the case, the occiput is turned to the right rear; the back of the left shoulder will be found above the pubes; with the external hand push the shoulder towards the mother's left side. If you succeed in pushing the shoulder over, the occiput will not slip back; if you do not succeed in moving the shoulder the occiput will very readily, as a rule, slip to the rear. If you are not able to push the shoulder with the external hand, it is sometimes a comparatively simple matter to push the internal hand on past the head and rotate the body of the child in such a way as to bring the shoulder in its right position, with the back of the child towards the mother's front, instead of towards the right side. If you are not quite certain that you have got the body of the child in the right position, and especially if you find the slightest tendency in the occiput to slip backwards, try and hold it in position until you have introduced one blade of your forceps. This will generally keep the occiput to the front until you have applied the second blade.

If you have applied the forceps deliver in the ordinary way, not too rapidly—at the same time without losing any unnecessary time.

I shall not here discuss the various methods of rotating the occiput to the front which have been described; I should simply say to you if you know any better method than that which I recommend employ it. Years ago I was not successful in all cases in pushing the occiput to the front with my two fingers, as recommended by many authorities abroad, and especially James Ross, sr., and Algernon Temple, of Toronto.* Having a small hand I often found it much more easy and much more satisfactory to introduce the hand within the vagina and employ it in rotating. So far as I know Etailiard was the first who definitely described this method of manual rotation of the occiput forwards. During the last few years this method has been employed by a fair number of accoucheurs in the United States and Canada.

I do not intend to refer to any further extent now to difficult occipito-posterior positions, but I may say briefly that I consider that in the great majority of cases the most difficult of such positions are those which occur in connection with dry labor.

* Since reading this paper I have learned that my reference to Dr. Algernon Temple is not correct. Instead of using one or two fingers, as I have intimated, he anaesthetized the patient, and then introduced whole hand into vagina, seized the head between the points of the fingers and thumb in the interval between pains, and rotated the occiput forward. He described this procedure in October, 1837.

THIRD STAGE OF LABOR.

I have not, as a rule, found any special difficulty in connection with the delivery of the placenta. I may refer, however, to one notable exception occurring in my second year in practice. Patient had been attended by a midwife, having a very long, tedious and extremely painful labor. Child was expelled without assistance. I was called in on account of the post partum hemorrhage. I found retained placenta with hour-glass contraction of the uterus. Treated her in the ordinary way by dilatation of the contracted ring and delivery of the retained placenta. Patient made slow recovery.

I would simply say then, deliver the placenta in the ordinary way, having due regard to the various complications which may exist.

Watch the patient with a little more than ordinary care for one hour after the completion of labor.

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PRESIDENT'S ADDRESS—BEFORE THE TORONTO CLINICAL SOCIETY.

By EDMUND E. KING, M.D.

Fellows of the Clinical Society:

It is with a sense of deepest appreciation that I desire to thank you for the high honor you have done me in electing me to the position of Presiding Officer for the present year. The Clinical Society I consider to be the most progressive Medical Society in Toronto to day, and I hope that during the coming year it will not in any way deteriorate. To follow in the footsteps of such men as have previously occupied this chair makes the position one of considerable difficulty. These gentlemen have all done the Society honor and credit, else we would not have the progressive Society that we have to-day. I hope that during the coming year the members will take a greater personal interest in the Society by presenting clinical cases, and in discussing the communications presented by the Fellows. It is neither fair nor just to gentlemen presenting cases and papers before us that they should not be received with free, open and frank discussion. We are here to help one another, to give each other the benefit of our experiences, and to reap the advantages which accrue from the scientific presentation of clinical medicine and surgery. The free and open discussion of papers brings out material that is of advantage to everybody, and allows each to have the benefit of the other's experiences. It is not necessary to be verbose in order to be instructive, nor to take a great length of time in medical discussion, in fact this is a place where brevity is highly appreciated; at the same time we should not be too brief by remaining silent. I hope that during the year the members will endeavor as much as possible to confine their communications to clinical conditions, and as often as possible accompany them with the presentation of patients. Didactic communications are undoubtedly beneficial, but in a clinical society they are not as much in place as those that deal with the clinical aspects of disease. It is well in every case possible to have patients presented, but too often these patients are brought without either a written or well prepared history. Speakers owe a debt to the Society and they should not waste time. If the history is written out before and presented precisely, time is saved to the whole Society, and the case is presented in a much clearer and more instructive form than when the history is given in a rambling way. During the year we have only seven regular meetings, and with a membership of sixty it

would allow eight members to present original communications at each meeting, this would be altogether too many for the limited time at our disposal, consequently, if four members would undertake to supply the material for each meeting only one half of the Society would have an opportunity of being heard from in communications. It is my intention, with the acquiescence of the Society, to devote at least four of these nights to symposia dealing with the several aspects of selected subjects, conducted by gentlemen who have paid particular attention to the various branches discussed. I think that by doing this we will be able to increase the quality of the papers produced and the interest of the general members. This method has been tried in some of the large societies on the other side of the line, also in the old country, with great success. I am aware that it is more difficult in a Clinical Society to have these symposia than in other medical societies. I feel that if the Fellows will interest themselves in the matter that they can make their communications all have a purely clinical basis. It is my painful duty to refer to the great loss this Society has sustained in the death of Dr. Bertram Spencer, one of its oldest members and most regular attendants. He was a gentleman whose personality was exceedingly pronounced, whose enthusiasm in his profession was great, and whose interest in the Clinical Society was always apparent. The Society has lost a valuable member, and the profession in general has lost a faithful and upright worker.

In looking about me for a subject on which to make some remarks at this opening meeting, I was at a great loss to find one that would be of general interest to everybody, and still not one that had been over-worked. While I was contemplating this matter I received from a physician on whom I had operated a year before, for the removal of a prostatic obstruction, the following communication which caused my thoughts to drift towards the prostate:

MY DEAR DOCTOR,—A year ago last night I entered St. Michael's, and a year ago either to-day or to-morrow I was on the operating table. I am sending you this line to report results. Probably the best way I can do so is to give in detail my work on Monday last. I commenced at 5 a. m., and attended two confinements—one a breech presentation, drove in all during the day forty miles over rough roads, attended to three other patients, and wound up at 10 p. m. with two life insurance examinations. A pretty good day's work for any man I think. Slept the sleep of the just that night, and except feeling properly tired was all right the next day. I am really very well, and except that I have to take things slowly, feel as well as I have any time this last five years. When my

bladder bothers me I take ten grain doses of urotropin once a day for a couple of weeks, and that sets me up for some time. I use a good deal of this drug with my elderly patients and can generally rely upon its being of service to them.

Gratefully and sincerely yours.

I was then confronted with the difficulty of what was the best method of presenting the subject to the Society. Of recent years I am very glad to say that surgeons have devoted a great amount of attention to this particular subject. The operative technique is being improved very rapidly, and it is to be hoped that before very long it will be placed in a very much better position even than it is to-day. It is rapidly assuming its proper status, and I look forward to the not far distant day when sufferers from this common malady will have relief assured them from comparatively safe surgical methods. In reading the many reports in the medical press, in looking at the text-books in surgery, in referring to some of the latest works in pathology, I find that the prostate and its diseases are frequently entirely omitted; the references that are made are to a large extent copied verbatim from works that have preceded, and contain the errors as well as facts. I am unable to find in any single volume enough material to enable one to thoroughly understand the prostate and its pathological changes. The conditions that arise, owing to the changes that occur in the gland, are of greatest importance, and are of themselves responsible for a considerable loss of life, and an exceedingly great amount of suffering and inconvenience, to such an extent that I feel that I need not apologize further for presenting the subject, probably anticipatory of its clinical condition. I intend, as briefly as possible, to draw your attention to the gland, its development, its quiescent state, the changes that are liable to occur, and to refer to some of the means devised for the relief of these changes.

In making any remarks concerning the prostate, its pathology and treatment, the name of Sir Henry Thompson must stand out prominently. His Jacksonian Prize Essay of 1857 is to-day a classic. He was the pioneer in this brand of surgery, and so thorough was his work that in most points we still accept his data as true. On the point of surgical interference, however, we are gradually moving on. His statistics show that 34 per cent. of males who reach the age of sixty years suffer more or less from enlargement of the prostate, and that from 15 to 16 per cent. suffer in a considerable degree. He says further that it is a rare thing to find that enlargement produces trouble before the fifty-fifth year, and adds: "I have

never been able to meet with an instance of its recurrence at so early a period as fifty-five years." He says that in 70 per cent. all portions of the prostate enlarge with about equal frequency, the middle portion in about 13 per cent. This latter figure is to some extent refuted by other writers, Watson and others, who hold that the middle lobe enlarges much more frequently. It is an undoubted fact that the troubles consequent on middle lobe enlargements are much greater than those consequent on lateral enlargement. Any pathological condition that involves the health and lives of so large a proportion of males surely deserves the closest attention of surgeons toward its relief.

It is one of the unsettled questions, however, as to the cause of prostatic hypertrophy. It has been ascribed to a general senile change which involves the arteries, the kidneys, the organs in general, including the prostate. This was the early teaching of French schools, and is yet maintained by them. Most men resent being classed senile at fifty-five years, and some do not care to admit the term at any age. Velpeau, Sir H. Thompson and Prof. White are adherents of the doctrine which looked upon the enlargement of the prostate and fibroid disease of the uterus as analogous. Reginald Harrison says that the primary change takes place in the bladder, and that the prostatic enlargement is secondary and compensatory.

The senile theory is really the least tenable of the three. Many instances are on record of large, true hypertrophies existing below the age of thirty years. If it was simply a local evidence of a general systemic change, of what advantage would operative interference be? The removal of the enlargement would not help the general systematic condition, it could in no way improve its arterial sclerosis. We know that after the removal of the hypertrophied gland or the obstructing portion, the bladder regains its function and often the sexual power returns, while numerous reports show that it is of quite frequent occurrence around forty years.

The prostate is not the analogue of the uterus, consequently there is no morphological reason why they should each develop similar changes. The uterus is a muscular organ, the prostate is glandular, the tumors of the uterus are fibro-myomata, while those of the prostate are glandular. The prostate undoubtedly contains a great deal of muscular tissue, but its tumors are of the glandular type. That these growths are prone to occur both in uterus and prostate at the same period of life is quite probably a coincidence. I have had during the past five years many cases of enlargement of the prostate accompanying seminal vesiculitis, in which the glands shrunk back to normal size after the seminal vesiculitis was cured.

It is to my mind clear that the chronic inflammation of the vesicles are responsible for the prostatic enlargement. I am quite aware that this enlargement, which gets better under treatment indicated, is not the true hypertrophy, but I contend that it is the beginning of chronic true hypertrophy. I propose during the winter to present a report on a series of these cases which will bear me out in these remarks. Sexual activity or over indulgence may be a cause for this hypertrophy in those predisposed to the condition. In the 66 per cent. of males who do not develop the trouble, we find that those who reach very old age are in no way inconvenienced by urinary disorders.

When we recognize that the removal of the thyroid gland produces marked changes throughout the body, that the removal of the uterine appendages causes great diminution of uterine fibroids, it is not hard to imagine, as Mansell Moullin points out, that certain conditions of the testes may stimulate the prostate to increased and irregular growth. When we remember the changes that take place in the region of the prostatic urethra, in the veru montanum, in the vas deferens, the ejaculatory ducts, etc., at the time of sexual excitement, it is not hard to imagine that these conditions may eventually produce permanent changes, or at least provide the necessary stimulus to the quiescent parts to take on active pathological change.

The prostate gland, or as some writers prefer to say, glands, is situated at the base of the bladder and extends forward to the triangular ligament. The urethra passes through the gland, is not always, but usually, completely surrounded by the gland; but the portion in front of the urethra is smaller than that behind, and frequently absent. It is pear shaped, with its base toward the base of the bladder, and its apex at the triangular ligament. When the gland takes on pathological changes, it enlarges laterally, backward, and upward toward the bladder, but not forward of the triangular ligament. The weight of the normal gland is from four to six drachms, its length is about one and a half inches, breadth one and a half to two inches, and thickness three-quarters to one inch. It contains in its substance a sac—the utriculus—which opens into the urethra in the middle line just in front of the veru montanum. This sac is the analogue of the uterus and vagina, it is lined with a single layer of columnar epithelial cells on a thin basement membrane, it is developed separately from the prostate and is included within the gland during its progress of growth. I am enabled through the kindness of Prof. Primrose to show you a very beautiful specimen of over-development of the utricle, which very clearly demonstrates the true situation.

In the latter month of fetal life the prostate consists of two distinct lobes, and at the time of birth is situated entirely behind the urethra, it consists of a number of tubules, embedded in connective tissue stroma, rich in non-stripped muscle cells. These tubules are the outgrowths from the prostatic sinus on either side of the veru montanum. The portion of the urethra from which these tubules arise is developed from the urogenital sinus. The middle portion or middle lobe arise from tubules distinctly separate from the lateral ones, which are situated between the neck of the bladder and the veru montanum. The gland tubules continue to grow and branch into and between the facicule of the muscular stroma, and the development of the gland is established. Thus we have three distinct centres from which the gland develops. In cases in which that portion of the urethra between the neck of the bladder and the veru montanum does not contain tubules, no middle portion is developed, but this condition is rare, and the presence of the middle lobe can be taken as existing in the greater number of cases. The existence or non-existence of a third lobe has been a great bone of contention ever since it was first mentioned. Sir Edward Home, in 1806, announced to the British Society the existence of the third lobe of the prostate. He thus was enabled to account for bladder conditions found in cases when the lateral lobes were not materially developed. I find in Guthrie, "Anatomy and Diseases of the Urinary and Sexual Organs," edition, 1836, page 21-23: "There is another thing no less remarkable; it is that it is quite clear from the remains of Mr. Hunter's papers, etc., that he had anticipated Sir E. Home in every point connected with the subject." I do not wish to enter into any controversy over the priority of discovery, but in all the literature at my command Sir Edward Home is credited with the first announcement. I have here to-night the original Hunter engravings; and while I am not able to produce the original text, it is perfectly clear that the drawings distinctly show the existence of the middle lobe enlargement. Also in the original edition of Guthrie above quoted, there is one of the most perfect illustrations of the middle lobe conditions that one could wish to see. The engraving and coloring of this illustration would put to shame most of the colored illustrations of the present time.

The prostate is surrounded by a distinct and firm capsule. The gland is not intimately attached to the bladder, that is, it can be separated quite freely for a considerable distance, until it reaches the urethra. It is quite possible also to separate it here and extirpate the whole gland without injuring the urethra, particularly in those cases where the anterior portion of the gland is absent. At the apex the capsule is lost in the triangular ligament.

The prostate is not one of the urinary organs, as seen from its development, it does not in any way aid in the expulsion of urine, excepting in supporting the urethra which passes through it. It is often spoken of as if in some way acting as the sphincter of the bladder. The external sphincter of the bladder is just anterior to the apex of the prostate Henles muscle, which blends with the compressor urethræ. Guthrie, *loc. cit.* very clearly pointed out this fact. It is a well known fact that the bladder after being evacuated is collapsed, its walls are in contact, and its muscular walls contracted, as it gradually distends the muscle slowly relaxes, but still it maintains a close contact on the contents; this is continued until a certain point of distention is reached when the muscle around the neck is overcome. If from whatever cause the distention of the bladder does not cause the muscle at the neck of the bladder to relax, retention ensues, and the bladder muscle continues to distend until the elastic tension of the wall causes the muscle at the neck to relax sufficiently to let the urine dribble away drop by drop, but the urine dribbles into the prostatic portion of the urethra and causes this to distend to a sufficient degree so that it in reality becomes a portion of the bladder cavity. Here the external sphincter, Henles muscle and the compressor urethræ come into play. The late E. Finger, of Chicago, draws particular attention to this condition of the prostatic urethra as follows:

"If we introduce an elastic catheter into the urethra of a man who has as yet no desire to urinate until the urine begins to escape, and measure the portion of the catheter thus inserted, and then do the same thing with the same subject when the bladder is full and desire present, we always find that in the latter case the length of the catheter necessary is from two to three cm. shorter, and that as a matter of fact the urethra is so much shorter with a full bladder. Repeated experiments carried out on healthy persons showed that with a moderately full bladder the urethra was eighteen to twenty-one cm. long, with a full bladder and a desire to urinate it was sixteen to nineteen."

The prostate is a sexual gland, and is affected by changes in development of the other sexual appendages, which are intimately connected with it. In cases where the vas deferens on one side fails to develop that half of the prostate is also deficient in development, although the testicle may be perfectly developed. In many mammals the lobes of the prostate are attached to the ejaculatory ducts at some distance from the bladder. Mr. Griffith, in his elaborate studies on the prostate, confirms the previous observation of John Hunter and Owen, that during the rutting season in certain animals, moles and

hedgehogs, the prostate enlarges to a very considerable extent, and contains great quantities of mucoid secretion, while in the quiescent season the gland is very small and free from secretion. These glands remain in this state to again increase in the next rutting season. John Hunter was the first to draw attention to the difference that existed between the prostate in the bull and the bullock; in the former the prostate was soft and bulky with a quantity of secretion, while in the latter the gland was small, flabby and tough with little or no secretion. Griffith has confirmed this in the dog and cat in several instances. In Eunuchs these observations are confirmed; one author, Pelican, reporting that the prostate in cases in which he had made examinations was about the size of the prostate in the child. These cases are, however, ones in which the development of the gland has been stopped, and are not quite analogous to those who are castrated later in life. In these latter the operation is done to cause shrinking or retrograde change in prostates that have taken on pathological change while the testicles were still present.

The ejaculatory ducts pass through the substance of the prostate to open into the urethra on either side of the veru montanum by eight or ten openings on each side. The prostate is said to act as a sphincter to these ducts and prevent the gradual leaking away of its secretion. The muscular stroma is so situated around the tubules of the gland that the contents are squeezed or compressed out of the gland into the urethra at the time of or just before ejaculation. It mixes with the seminal fluid and is essential to its procreative power. The secretion is of a clear, viscid mucus character, with a distinctly fishy odor. When the prostatic secretion is absent, notwithstanding the presence of active and numerous spermatozoa, they are void of impregnating powers. I have endeavored to present the development and histological character of the prostate in as condensed a form as possible, and I quite readily recognize that in being brief on these matters, one may sacrifice clearness to brevity. This I have tried to avoid.

In taking up the subject of treatment of prostatic hypertrophy, we have to deal with it from two distinct aspects, one palliative, the other radical. It is striking with what boldness the earliest authorities struck out, and to note how we are to-day treading in their footsteps. While the technique of to-day is different their method and means of accomplishing the same results bear a very intimate relationship to ours. *The palliative treatment come under four headings:

1. The constant use of catheter.
2. Perineal drainage, through retained tube.
3. Supra-pubic puncture with retained tube.
4. Supra-pubic cystotomy with retained tube.

The highly instructive work of Guthrie, *loc. cit.*, contains the earliest description of the supra-pubic treatment, based on a most excellent comprehension of the pathological conditions.

I cannot refrain from quoting what he says about cases where it is impossible to pass the catheter. It differs in very slight detail from what we do to-day under similar circumstances. On page 250 we find :

"This operation is to be done by making an incision in the central line two inches long, from over the edge of the pubes upwards, as in the high operation for the stone. The muscular wall is then to be divided close to the bone, which may be done by a trocar bistoury which is made for the purpose, or by a straight sharp bistoury in the beginning, followed by one with a blunt extremity, so that the forefinger may, when introduced through the opening, feel the distended bladder rising up toward the umbilicus. If the bladder is so small that it cannot be felt in this situation this operation ought not to be done, for the peritoneum will not be carried high enough up on its anterior surface, to leave a space below it in which the trocar may be pushed without fear of its penetrating above the peritoneum, and thus entering the cavity of the abdomen instead of that of the pelvis. The bladder being, however, duly distended, the trocar is to be pushed in downwards and backwards, with due attention to the axis of the pelvis, and the trocar and canula should both be long so that the canula may be well introduced after the bladder has been duly punctured, and its escape in this way prevented when the bladder collapses or contracts upon it. A round pointed flexible elastic catheter should be carried into the bladder through the canula, and when this silver instrument is supposed to cause irritation it may be withdrawn over the catheter. If it is done in the first instance the hole in the bladder will be larger than the catheter, and if the patient turns in bed some urine may escape by the side of it and do great mischief. This will be, however, I think, prevented by keeping the plug or stopper out of the catheter when the patient sleeps, and by having a long external bladder attached to receive the urine which trickles from it." But Mr. Guthrie saw farther ahead, recognizing that these efforts were only palliative he looked toward some operate interference which would produce a radical cure. This was to be through the perineal route. We find him consulting his confreres, and one of them, Sir William Blizard, loaned him an unpublished paper that he had read in 1806 before the Medical and Chirurgical Society on the Diseases of the Prostate. I quote from Blizard's paper (Guthrie), page 253, where he says :

"I am disposed to think this person might have been suc-

cessfully treated by dividing the prostate by a double gorget cutting on both sides, introduced in the usual way on a staff into the bladder. It would have removed the immediate distress and might have laid the foundation for a cure. This is not a speculative remark. I have several times performed such an operation in cases of disease of the prostate gland, which I have thought within its scope of relief with complete success." We see that Sir Blizard, the pioneer of prostatic surgery, not only recognized the necessity of radical procedures, but was equal to the situation. When we remember the terrible ordeals of a surgical operation in pre-anesthetic days we must fully recognize the heroic efforts of both surgeon and patient. So much for the palliative means. The radical procedures:

1. Prostatotomy—Division of the obstruction at the neck of the bladder by a cutting instrument introduced through the meatus. Guthrie, Civiale, Mercier, Gouley, etc.

2. Prostatectomy—Removal of a portion of the middle lobe enlargement by snare or cutting instrument introduced through same channel. Mercier, Gouley, Teevan.

3. Prostatotomy and prostatectomy done through a perineal urethrotomy. Harrison, Annandale, Keyes, Belfield, Cabot.

4. Channeling the enlargement through external urethrotomy. Harrison.

5. Supra-pubic prostatectomy and removal of the enlargement through the bladder. Belfield, McGill, Dettel, etc.

6. Prostatotomy by galvano cautery through the urethra from meatus. Bottini.

7. Injections of iodine into the substance by the gland. Heine.

8. Electrolysis by instrument pressed through meatus Newman.

9. Electrolysis by needle puncture. Biedert, Caspar.

10. Removal of whole gland through a large perineal incision.

11. Double castration. White.

12. Removal of the gland with its capsule through supra-pubic opening. Freyer.

13. Vaserectomy, double. Harrison.

14. Removal of whole gland through a large perineal incision aided by a supra-pubic cystotomy. Bryson.

15. Removal of the whole gland through a perineal incision, aided by a retractor or depressor in the bladder passed there either through the meatus or through an external urethrotomy. Ferguson, Murphy Signs, etc.

There are other details of operations which I have not mentioned, but they are modifications of these and require no special mention.

1. Prostatotomy—Guthrie devised a concealed knife which was made to protrude after the instrument was in the bladder and cutting forward. Mercier, Civiale and others, all made their instruments in the same way.

2. Prostatectotomy—Mercier went further and devised an instrument which resembles the lithrotrite; it consisted of two blades, one cutting and one blunt, the cutting blade is worked by a screw at the head. After the instrument has entered the bladder it is opened and turned open-jawed to the base of the bladder, one blade is dragged forward over the obstruction. The obstruction now being between the blades, the cutting one is rapidly pushed down and a piece is removed, this is caught by a fork in the instrument and forcibly withdrawn along the urethra. The results obtained were not very satisfactory, however. Similar proceedings were done through the perineum, and Harrison had considerable success by removing a V-shaped portion with a straight bistoury through the external urethrotomy. Belfield, of Chicago, in 1886, reported his experience with an entirely new method of attacking the enlargements. McGill, of Leeds, in 1888, brought to the attention of the Clinical Society, and in 1889 before the British Medical Association, a report of his work in exactly the same line. The operation is now known as McGill operation, and has been the means of affording relief of symptoms and permanent cure to great numbers. The technique of this operation is quite familiar to you all, consequently I will not go into detail, excepting to impress the fact that McGill strongly urges that the enucleation be done by the finger and not by cutting. The operation is greatly facilitated by pressure forward of the tumor mass by the disengaged hand or an assistant's hand in the rectum.

The electrolytic and cauterly treatment has not given the success that was hoped from them. There is always reluctance to adopt measures of surgical interference that have to be done in the dark. Where you cannot see what you are doing you may possibly be doing just a little too much, or not quite enough. Bottini, of Milan, formerly of Pavia, first published his methods in 1874. He has had, and is yet having, great success by his method. The difficulties in the way are quite formidable however. The electric current has been the main difficulty that has to be contended with here. It is with the greatest difficulty that one can get a suitable portable battery. The heat frequently causes the knife to buckle, and a cutting operation has to be done to release the instrument; severe hemorrhages have followed, and in fact, it is like a great many other operations, the originator secures better results than his followers. The mortality is low, but high enough to cause the surgeon to pause and consider if other and more scientific pro-

cedures are not better. Watson, of Boston, in 1888, after very exhaustive research, leaning strongly at the time to the fascinating Bottini methods and Watson's modifications, came to the conclusion that removal of the obstruction through the perineum, or by the supra-pubic route was the most rational and scientific method of treating the disease.

Then followed White, of Philadelphia, with his most elaborately worked out detail of reasons why double castration should ensure a permanent shrinking of the hypertrophy gland. According to the development of the gland, and from the analogous shrinking of the prostate mammals under similar circumstances. He based his ideas on physiologically sound facts. His results were excellent, but the mutilation necessary was too much for even aged men to acquiesce in readily, the results were not uniform, the mental effects were frequently serious, so the operation fell into disuse. Reginald Harrison put forward his plea that it was not necessary to castrate, but simply to divide and remove a portion of each vas deferens and thus secure the same end. In a number of cases this proved successful, but the improvement is much slower and not as certain as in castration.

It seems to me evident that so far we must all admit that the operation through the supra-pubic incision gives the best results. It removes most, if not all, of the diseased area, and relieves the distressing symptoms.

Whether we adopt the perineal route alone, the supra-pubic alone, or the combined operation, experience and time alone will tell.

Neither Belfield's nor McGill's is the ideal operation. However, Lieut.-Col. Freyer, of St. Peter's Hospital, London, whose wonderful work in lithotrity has made him famous, advocates a supra-pubic procedure with which he has had great success. I think I cannot do better than give his own description of the operation, page 108-9.

"To accomplish this, supra-pubic cystotomy is first performed, and the catheter, employed for inflation of the bladder, left in the urethra. The forefinger of the left hand is then introduced through the wound, and a general survey of the bladder is made. The mucous membrane over the most prominent part of one lateral lobe, or over the so-called middle lobe, if there be one, is snipped by scissors, or torn through by the sharpened finger nail. The forefinger of the other hand is introduced into the rectum, to push the prostate prominently into the bladder and to keep it steady in this position. The mucous membrane is gradually detached by the finger nail from the tumor, or prominent portion of the prostate in the bladder. It will be found that this portion of the prostate is covered merely by the mucous membrane of the bladder,

having, in its gradual enlargement backwards into that viccus. burst through its sheath in this direction, so that when the mucous membrane is detached the true capsule of the prostate is at once reached. Keeping the finger point in close contact with the capsule of the prostate, enucleation of the organ from the enveloping sheath is effected by pushing the finger in succession beneath, outside, and above one lateral lobe, separating the sheath from the capsule. The finger is then swept to the inner side of the lobe, detaching this from the urethra, which is pushed upwards towards the symphysis, between the lateral lobes, which will, as a rule, have separated along their superior commissure during the manipulations. The other lobe is treated in the same manner. The finger is then pushed well forward, and the anterior surface of the prostate is peeled off the triangular ligament. By aid of the finger in the rectum the prostate is tilted to one side beneath the urethra, and pushed into the cavity of the bladder, whence it is delivered by forceps. Sometimes the lateral lobes become detached along both upper and lower commissures, and come away separately.

There is, as a rule, very little bleeding from the operation, and this is easily controlled by irrigation with hot lotion through the catheter. A stout drainage tube is placed and kept in the supra-pubic wound for two or three days, after which the bladder is irrigated daily by a weak antiseptic lotion till the supra-pubic wound is nearly closed." I am not able to say more about this method but his results certainly demand a further continuance of work along this line.

In doing the perineal operation many aids are used to bring the prostate further down into the wound. Dr. A. H. Ferguson has a specially constructed sound which very materially aids in drawing down the prostate without making a supra-pubic incision.

Parker Syms uses a rubber bag, introduced into the bladder through an external urethrotomy wound, and distended with water; this he uses as a retractor. J. B. Murphy, of Chicago, has hooks made with which he pulls the gland down well into the perineal wound, and also uses them to help shell the gland from its capsule. These are only a few of the many aids to the operation.

There are many points on which I have not touched, but I have tried in a general way to place before you the subject as concisely as I could. I look forward to very rapid advancement in this branch of surgery, and I hope before the season closes to have reports of many successful operations, and also that amongst the Fellows of this Society we may find some one who will still further improve the technique of prostatic surgery.

Society Reports.

TORONTO CLINICAL SOCIETY.

REGULAR MEETING, Nov. 5th, 1902.

The President, Dr. E. E. King in the chair.

Dr. D. King Smith was elected a Fellow.

Drs. Ainslie P. Ardagh, Orillia, and C. F. McGillivray, Whitby, were elected non-resident Fellows.

Esophagotomy for Foreign Bodies (with patient).—DR. E. E. KING.

This was the case of a girl of about eighteen years of age, who on a Sunday in September five weeks ago swallowed a peach stone, which lodged in the esophagus. Esophagotomy was performed and the foreign body extracted with very little difficulty. Dr. King stated, as regards the X-ray, that it was impossible to take photographs of stones of fruits.

Two Cases of Eye Affection in the Toxemia of Pregnancy.

Notes of these cases were given by Dr. K. McIlwraith. The first case occurred in May, 1901. This patient had been suffering from loss of vision ever since the third month of her pregnancy, which was most marked in the right eye. There was a pretty large precipitate of albumen in the urine. She was confined in May, and her sight gradually and slowly improved until the first week in September, when she was able to see practically as well as she could before the conception took place. At that time she still had the precipitate of albumen in the urine.

The second case was one which Dr. McIlwraith had confined for Dr. Wright in August last. When this patient was first seen by Dr. McIlwraith, she was suffering from tremor of the body and limbs. There was a heavy precipitate of albumen in the urine. She had a very difficult labor, but made a good recovery. On the second day she had convulsions and was treated with salines and a hypodermic of $\frac{1}{2}$ gr. of morphia. When she came too after the convulsions her eyesight was gone. Had the power to distinguish light, but not objects. On the fourteenth day of pregnancy the eyes were examined by an oculist, and there were hemorrhages extending over the whole retina. In both these cases the eyesight almost completely has returned.

Perforating Ulcer of Duodenum.

Dr. George Elliott read the medical notes on this case, which occurred in a man of fifty-eight years of age, who all his life had been a considerable drinker. Two hours after he was seized with acute abdominal pain he was seen by the physician. He had a pulse rate of 75 and a temperature of 97 and 4-5. There was marked rigidity of the right abdominal wall and pain in the right iliac fossa. There was not and had been no vomiting. When seen by the surgeon some twelve hours later there was present general peritonitis and the pulse rate could not then be counted. The usual incision was made for appendicitis, when on the peritoneum being opened a small quantity of gas and much bile stained fluid escaped. Drainage was inserted towards the gall bladder, and the patient returned to bed. Death occurred six hours after. Dr. H. B. Anderson made a post mortem examination and described the result of his findings. There was a perforation in the posterior wall of the first portion of the duodenum that would admit the index finger, probably the largest perforation which has been reported. The appendix was normal.

Multiple Cystic Colloid Adenoma of Ovary.

Dr. H. A. Bruce reported this case and showed the pathological specimen. Twenty days before operation the patient, a married woman of twenty-nine years of age, was practically normal, there being no enlargement whatever of the abdomen. Just before the operation she was as large as a woman at nine months' pregnancy. When the abdomen commenced to enlarge it had enlarged very rapidly. At the operation about three pints of fluid were withdrawn from the cyst.

GEORGE ELLIOTT,
Recording Secretary.

Editorials.

TOWN AND GOWN.

We have in Toronto at the present time probably the finest body of students the city has ever known, and perhaps the finest body of policemen on this continent. Under the circumstances a prolonged "Town and Gown" contest would be a deplorable calamity, ending of necessity in the defeat of the "Gown." For many years the "pranks" of the students and accompanying hoodlums have gone far beyond the bounds of innocent fun and frolic. Wilful destruction of property by students cannot be allowed to continue for a long time in a city like Toronto.

No man has more fully realized the truth of these truisms than Dr. Reeve, the Dean of the Medical Faculty of the University of Toronto, and no man has done more than he during the last five Hallowe'ens to prevent boisterous or disorderly conduct on the part of his students. On each of these evenings he has entertained the whole body of medical students, some recent graduates, and some of the professors. He always provided for his guests a bountiful supply of refreshments, and allowed *the boys* to have a sort of smoking concert. His efforts to prevent his students from engaging in any lawless proceedings have been eminently successful.

After spending a pleasant couple of hours in one of the University buildings on last Hallowe'en, the students walked down towards Queen Street Avenue, accompanied by the Dean and Professors Primrose and Mackenzie. When they reached the vicinity of the corner of College Street and Queen Street Avenue, a body of mounted policemen, under Sergeant Goulding, ordered them to disperse, and at the same time rode among them slashing right and left with their riding whips. It happened that bodies of students and hoodlums had been guilty of disorderly conduct and had destroyed property in various parts of the city earlier in the evening. The police received orders to stop such disorder, and probably to disperse all bodies of men acting in a boisterous manner. The Medical Faculty students were singing college songs when the policemen ordered them to disperse.

The policemen were legally right in giving such an order but were not justified in clubbing them, as they offered no resistance and endeavored to disperse as rapidly as possible.

Looking on the matter from the policeman's standpoint there was perhaps some excuse for the hot-headed conduct of the mounted men. They may have thought that they were dealing with some one of the disorderly crowds, and in their delirium of hot temper felt it their duty to act in an illegal (to put it mildly) manner. It seems a pity that they considered it beneath their dignity to explain or apologize. The party who should be chiefly blamed in this regard, however, seems to be Sergeant Goulding, who in the first place ordered his men to make the attack and set the example as to the clubbing. The Dean stated publicly (and we have every reason to believe his statement was correct) that the students would have permitted the incident to pass if the Sergeant had apologized for the assault after he had discovered his mistake. Instead of doing his plain duty in this respect, his attitude to both students and Dean was at all times extremely offensive. We give in another column the full text of the finding of the Commissioners.

ROSS MEMORIAL HOSPIAL.

Mr. James Ross of Montreal has presented to the Town of Lindsay a "gem" in the shape of a hospital, which is said to be in all respects first-class. It is beautifully designed and perfectly equipped. The generous donor has presented this handsome gift as a memorial of his father and mother, who were for many years residents of the Town. The building, containing twenty-four beds, with full equipments and furnishings, cost \$75,000. The inhabitants of Lindsay and neighborhood have raised an endowment fund of \$16,000. The hospital will be maintained by the revenue derived from this fund and by the per capita allowances of the Town and surrounding counties which send patients.

The hospital was formally opened to the public November 20th, when a large number of guests were assembled. After a brief stay at the hospital an adjournment was made to the Collegiate Institute, where an address was presented to Mr. Ross.

Among those present were the following from Toronto: Drs. Tempie, O'Reilly, Ryerson, Bingham, Ross and MacLennan. The superintendent of the new hospital will be Miss Scott, a graduate of the Toronto General Hospital Training School for Nurses, and for some time superintendent of Dr. Temple's private hospital, Toronto.

THE ASYLUMS FOR INSANE.

We understand that the Hon. J. R. Stratton, Provincial Secretary, has called the attention of the Attorney General to the need of more stringent regulations whereby aged and infirm persons shall not be sent to the insane asylums as lunatics. Mr. Stratton, we are told, recently discovered in the asylums of the Province five persons not insane, who should have been either in the care of their friends or in a house of refuge. He thinks that physicians should be made to exercise greater care in giving certificates as to insanity. This eagle-eyed expert politician spotted these five persons improperly incarcerated in lunatic asylums through incorrect certificates of physicians, who should be prevented from abusing their power in the manner mentioned. He found that one was simply blind, another was simply a sufferer from a rheumatic affliction, others had simply senile decay.

The above are some of the statements which have lately appeared in the city press in various parts of Ontario. We are inclined to think, however, that Mr. Stratton has been, to a large extent, misrepresented or misunderstood. Without any further reference to Mr. Stratton, we may say that similar charges against the medical profession have frequently been made during the last few years. Many, if not all, of the statements referred to have been absolutely false and grossly offensive. Physicians of Ontario do not give certificates of insanity for the purpose of confining within lunatic asylums persons who are simply old, blind or rheumatic.

NOTE.—Since this was written we have seen a communication from Dr. McKinnon, Guelph, which we publish in this issue.—ED.

FULL TEXT OF THE DECISION OF THE COMMISSIONERS AFTER INVESTIGATION OF CHARGES AGAINST THE POLICE.

The Board of Police Commissioners, having carefully investigated the complaint preferred by Dr. Reeve, Dean of the Medical Faculty of Toronto University, against certain members of the Toronto Police Force, for their actions on the evening of Hallowe'en, at the corner of University Street and College Street, have arrived at the following conclusion, upon the evidence laid before them :

1. That, for a number of years past, there have been annually, on Hallowe'en night, disturbances, riotous conduct and destruction of property by students and others in various parts of the city.

2. That, in consequence of these demonstrations, many citizens have forwarded complaints to the police authorities, and claimed protection.

3. That it has been found necessary on this night to employ a number of special constables, in addition to the regular force.

4. On October 31st last, large bodies of students paraded the streets, and destroyed the property of peaceable citizens at various points, to the value of considerably over one thousand dollars.

5. That, in view of the destruction of property in previous years, in the vicinity of the Queen's Park, Sergeant Goulding and a party of mounted men were specially detailed to guard that locality.

6. That the medical students of the Toronto School of Medicine, who had been spending the evening with their professors in the park, about 11 o'clock were returning in a body to their homes, to the number of about 400, singing their college songs and shouting their university yells. They were accompanied by their professors, who brought up the rear.

7. Sergeant Goulding, hearing these boisterous sounds, and knowing of the actions in previous years, and being also aware of some of the riotous conduct already committed in other parts of the city, brought his men together at the corner of College and University Streets, and considered it his duty to disperse

this body of students, and prevent the possibility of their joining or meeting other bodies of students returning from the theatres and from downtown.

8. The Board are not prepared to censure Sergeant Goulding for having considered it proper to disperse the medical students, under all the circumstances, but he was too hasty in his method of action.

9. The Board are of the opinion that the sergeant and his men were not in any sense justified in using their riding whips as described in the evidence. The students were obeying the request to disperse promptly. They offered no resistance, and, in the opinion of the Commissioners, showed exceedingly good temper and self-control. Yet the sergeant and several of his men plied their whips on the shoulders of the students as they were scattering. This violence was entirely unjustifiable, and an unwarranted abuse of their powers, and the Commissioners feel bound to express to Professor Reeve and his associates, and to his students, their sincere regret that their officers committed such a grave error of judgment.

10. The extensive powers entrusted to the police, the exercise of much of which must be left to the sole discretion of the individual officer, frequently under trying circumstances, calls for the soundest judgment and the utmost self-control. In the present instance, the Board regret that the officers abused their powers, without sufficient justification.

11. To mark their disapproval of the conduct of Sergeant Goulding and of the example set his men, the Board direct that a fine of seven days' pay be imposed upon Sergeant Goulding, and three days' pay each upon Constables Guthrie, Ide and Ward.

12. As to the case of Constable Miles, the Board are of opinion that the complaint against that officer was not proven.

13. The Board of Commissioners express the hope that as to future Hallowe'en demonstrations, the professors and other heads of educational institutions in Toronto will use their best efforts along the very sensible line introduced by Professor Reeve, with the object of reducing the boisterous and disorderly conduct unfortunately heretofore occurring on this holiday.

14. His Worship the Mayor, being absent during a large por-

tion of the inquiry, does not take part in the findings of the Board, but fully concurs in the general principles laid down in this minute.

Medical Council Elections.

The elections for the Ontario Medical Council were held on December 2nd, but thirteen members were elected by acclamation, as follows: No. 1, Dr. Bray, Chatham; No. 3, Dr. McArthur, London; No. 4, Dr. Robertson, Stratford; No. 5, Dr. Brock, Guelph; No. 6, Dr. Henry, Orangeville; No. 7, Dr. Stuart, Milton; No. 8, Dr. Glasgow, Welland; No. 11, Dr. Macdonald, Toronto; No. 12, Dr. Sangster, Port Perry; No. 13, Dr. Hillier, Bowmanville; No. 14, Dr. Thornton, Consecon; No. 15, Dr. Spankie, Wolfe Island; No. 16, Dr. Lane, Mallorytown. There were contests in four districts, the following being elected: No. 2, Dr. Mearns; No. 9, Dr. Gibson; No. 10, Dr. E. E. King; No. 17, Dr. M. Klotz.

Trial Before the Discipline Committee, Ontario Medical Council.

A committee of the Ontario College of Physicians and Surgeons, consisting of Dr. Bray, Chatham, chairman; Dr. Moore, of Brockville; Dr. Campbell, of London; and Dr. Albert A. Macdonald, Toronto, held a sitting at Guelph, November 13th, to try a complaint against Dr. Chas. A. Jones, of Mount Forest, of unprofessional conduct. Dr. Jones is a registered practitioner, and the charge was that he allowed his son to help him in his practice, the son being an undergraduate in medicine of Trinity College, Toronto, and also a graduate of a medical college in the United States, but not holding an Ontario license. A compromise was reached, whereby Dr. Jones admitted in writing that his conduct was open to objection in a professional respect. He had not at the time supposed that his conduct was open to objection, but he admitted indifference to the opinion of the medical profession, and he apologized. Dr. Jones represented that his son received no fees for the work he did, and he had not been at work at all under his father for some time. *The doctor undertook that the trouble will not arise again.*

THE ASYLUMS FOR INSANE.

The following communication from Dr. A. MacKinnon, one of the most prominent practitioners of this Province, and a Past President of the Ontario Medical Association, appeared in the *Toronto Globe*:

I beg to be allowed to notice some comments which appeared in your issue of the 18th inst., under the heading, "Imposing on the Province." The Hon. J. R. Stratton is quoted as affirming "that within the past few months five persons were committed to the asylum as insane who were not insane, though the usual certificates were signed by medical men in each case." This remarkable statement is followed by something still more astonishing, "that there is good reason to believe that these persons were sent only to relieve their friends or the House of Refuge, etc." If these statements are true it means that there are ten registered medical men in the Province who sign false certificates—knowing that these persons were not insane, yet certifying their insanity. Whose liberty is safe if medical men sign false certificates of insanity? If the Provincial Secretary believe this true, it is clearly his duty to lay information before the Discipline Committee of the Ontario Medical Council. I am sure an immediate investigation will be made, and if the charges are proved the names of the medical men guilty of such grossly infamous and disgraceful conduct will be erased from the roll of registered practitioners. It is not necessary to appeal to the Attorney-General or to amend the law in any respect. Their names being struck off, they can no longer practice, and cannot, therefore, repeat the offence. Besides, the example will surely prevent any medical man, if so disposed, from transgressing in a similar way.

But, sir, it concerns the public to know what tribunal has decided that these five persons were not insane. It is said, furthermore, in the article referred to, that the Provincial Secretary sent these five persons back to the counties from which they came; one had rheumatism, another was blind. Does the occurrence of rheumatism or blindness make it impossible for insanity also to exist? It will be very interesting to learn the future history of these five persons. It is well known that there are hundreds on the borderland between sanity and insanity. One day or one week they may impress one as being properly responsible. At other times they are far otherwise, and may commit atrocious acts. Then, let me ask who it was that decided that these five persons whose insanity was certified by ten medical men were not insane? Was it the Minister himself, the Medical Superintendent of the asylum or some junior officer in an asylum? For what period were the patients

under observation? The question is one of extreme difficulty. I have known in one instance a man sent home from the asylum with the approval of the Medical Superintendent as not being insane, who committed suicide in an attack of melancholia shortly after his discharge. Who was right, the two medical men who certified this man's insanity, or the Medical Superintendent, who said he was not insane? In another instance a man was discharged from the asylum after a short stay, who, in maniacal frenzy, nearly murdered his mother within two days of his return home. I submit that the medical man who knows the families, and who knows the history of the individual and his environment, is by far a safer judge as to sanity than any asylum authority.

From the tone of the article one would infer that the asylums were the private property of the Government, and that the public were striving, with the connivance of the medical profession, to unload upon them those who are incapable from any cause—rather than suffer them to be a charge upon their friends or the municipalities to which they belong. The truth is far otherwise. So great is the disgrace felt of having a friend in the asylum that many families try in every way to conceal the mental obliquities that exist—so that it is often extremely difficult to secure the consent of the friends in order to obtain asylum treatment for acute cases in their most hopeful stage.

Besides, after all, the people, not the Government, pay for the maintenance of the asylums. And whilst in many departments economy in expenditure is most commendable, in regard to asylums the economy should not be so rigid as to fail in providing ample accommodation and efficient care and treatment for those affected.

In conclusion, I wish to say that since the Provincial Secretary has gone so far as to make these assertions regarding the integrity of men in an honorable and responsible profession, it is obligatory upon him to furnish to the proper authorities the names of those who sign false certificates, and to see that they are properly punished. Indeed, such a course at the outset would be more seemly than to furnish the press with statements that are of the nature of a slander on the whole profession.

A. MACKINNON, M. D.

Guelph, November 10.

Personals.

Professor Osler, of Baltimore, paid a flying visit to Toronto, November 29th.

Dr. H. S. Hutchison (Trin. '01) left Gravenhurst in September, and commenced practice in Cordova, Ont.

Lt.-Colonel G. Sterling Ryerson, M.D., A.M.S., has been promoted to the grade of Colonel "in recognition of his services as Red Cross Commissioner in South Africa."

Dr. J. M. Forster, Assistant Superintendent at the Mimico Asylum for Insane, has gone to Great Britain and the continent for a three months' trip.

Dr. Barr, M.P.P., of Shelburne, after spending some weeks in the General Hospital, Toronto, undergoing treatment for his broken ankle, has quite recovered. He left the hospital November 24th.

Dr. Robert J. Dwyer has returned to Toronto after spending several months at post-graduate work in London. We desire to congratulate him on the fact that he has brought back with him the M.R.C.P. Drs. Rudolf and Dwyer are the only physicians in Toronto having this qualification.

The following new appointments have been made in the Medical Faculty of the University of Toronto: Assistant Demonstrators in Anatomy, A. C. Hendrick, B.A., M.B., A. J. Mackenzie, B.A., M.B., D. McGillivray, M.B.; Demonstrators in Pathology, G. Silverthorn, M.B., C. J. Wagner, M.B.; Assistant Demonstrators in Pathology, T. D. Archibald, B.A., M.B.; F. A. Clarkson, M.B., M. M. Crawford.

Dr. Julius E. Lehman (Tor. '93), after spending between two and three years on the Continent, chiefly in Berlin and Vienna, commenced practice in London, England. After meeting with good success, he decided to return to Canada for a time. He spent a few days in Toronto about the middle of November, and then started for a western trip to Chicago, Winnipeg, etc. He has not yet decided whether he will return to London or remain on this continent.

Professor Lewellyn F. Barker, of Chicago, came to Toronto December 3rd to attend the annual banquet of the Medical Faculty of the University of Toronto, and delivered a very interesting address on that occasion. He also delivered an address on researches as to "Plague" in the far East, and on the following evening his many friends were, of course, delighted to see him and offer their congratulations on his success in Baltimore and Chicago.

Dr. Charles B. Shuttleworth, of Toronto, is now F.R.C.S. England, having recently passed the Fellowship examination. He will return to Canada to resume practice in Toronto in the latter part of this month.

The annual banquets of the Medical Faculty of the University of Toronto and Trinity Medical College were held Wednesday evening, December 3rd. The chief guest at the former was Professor L. F. Barker, one of the University's most distinguished alumni.

Matriculation standard, Ontario Medical Council. After a recent meeting of the Executive Committee of the Council, Dr. R. A. Pyne, the Registrar, formerly announced that the standard of admission for 1903 would be the same as for 1902. After 1903 the requirement will be: 1 Junior matriculation in arts, including physics and chemistry, with honor standing in any one subject of the course; or 2, Senior matriculation in arts.

The fifteenth annual meeting of that vigorous and prosperous Society, the Southern Surgical and Gynecological Society, was held in Cincinnati, November 12th to 15th. One of the chief features of the meeting was the admirable address of its President, Dr. W. E. B. Davis, of Birmingham, Ala. The Society largely owes its success to the indefatigable labors of Dr. Davis, and gladly honored him last year by making him President.

Obituary.

JOHN A. FERGUSON, M.D.

Dr. J. A. Ferguson, of Ottawa, died November 20th, aged 29. Last May he took a prominent part in putting out a fire at St. Agatha des Monts, for which he was, a few weeks ago, presented with the Royal Humane Society's Medal. The exposure thus incurred greatly impaired his health and no doubt hastened his death.

DR. NORMAN ALEXANDER ROSS.

Dr. Norman A. Ross, formerly of Toronto, son of the late Dr. A. M. Ross, Simcoe Street, Toronto, died in Detroit, November 27th, 1902. It was at first reported that he had committed suicide, but his physician, Dr. J. J. Mulheron, says his death was due to an accident, from a dose of strychnine taken in mistake for morphine. The remains were brought to Toronto and buried in St. James' Cemetery, December 1st.

Book Reviews.

A Text-Book of the Surgical Principles and Surgical Diseases of the Face, Mouth, and Jaws. For Dental Students. By H. HORACE GRANT, A.M., M.D., Professor of Surgery and of Clinical Surgery, Hospital College of Medicine; Professor of Oral Surgery, Louisville College of Dentistry, Louisville. Octavo volume of 231 pages, with 68 illustrations. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$2.50 net. Canadian Agents, J. A. Carveth & Co., Parliament Street, Toronto.

This text-book, designed for the student of dentistry, succinctly explains the principles of dental surgery applicable to all operative procedures, and also discusses such surgical lesions as are likely to require diagnosis and perhaps treatment by the dentist. The arrangement and subject matter covers the needs of the dental student without encumbering him with any details foreign to the course of instruction usually followed in dental colleges at the present time. The work includes, moreover, such emergency procedures as not alone the dentist and physician, but also the layman, may be called upon to perform. These, like the other subjects in the book, have been described in clear, concise language, admitting of no equivocalness. Whenever necessary, for the better elucidation of the text, well-selected illustrations have been employed. For the dental student the work will be found an invaluable text-book; and, indeed, the medical beginner, also, will find its perusal of more than passing benefit.

The Physician's Visiting List for 1903. Published by P. Blakiston's Son & Co., Philadelphia.

This is one of the best arranged lists we have seen. Besides the usual blank leaves for the visiting list for each month and day of the month, there is a special memoranda blank on each page, and also a ledger-page column. In another portion of the book are blank leaves for addresses of patients, addresses of nurses, accounts asked for, memoranda of wants, obstetric engagements, vaccination engagements, record of births, deaths, and cash accounts, etc. In addition to all this, there are tables of poisons with their antidotes, tables of incompatibilities, dose table, table for calculating period of utero-gestation, etc. This concise little pocket-book is fitted with pencil and pocket, and is very convenient in size. For twenty-five patients per week the price is one dollar.

A Physician's Practical Gynecology. By W. O. HENRY, M.D., Omaha, Nebraska.

This little book of some two hundred pages outlines in a general way the field of gynecological science. The aim of the

author, to present concisely the elements of the subject, to furnish the student and general practitioner with a practical guide to the diagnosis of the ordinary gynecological cases, and thereby enable him to pass the case on to the specialist if he cannot himself give the adequate treatment, has been conscientiously carried out. The book should be useful to those wishing only a working knowledge of gynecology.—*The Review-Press*, Lincoln, Neb.

A Compend of Human Physiology for Medical Students. By ALBERT P. BURBAKER, M.A., M.D. Published by P. Blakiston's Son & Co., Philadelphia.

This is a comprehensive little book and covers pretty thoroughly the whole range of physiology, and can be safely recommended as an efficient aid to the student who wishes to get a general notion of the subject. The name of the author is a sufficient guarantee of the worth of this little book. It is one of the series of Quiz-Compendes published by the well-known firm of P. Blakiston's Son & Co., of Philadelphia.

Atlas and Epitome of Operative Surgery. By DR. OTTO ZUCKERKANDL, Privat-docent of the University of Vienna. Second edition, revised and enlarged. Authorized translation from the German. Edited by J. CHALMERS DA COSTA, M.D.; Professor of the Principles of Surgery and of Clinical Surgery in Jefferson Medical College, Philadelphia; Surgeon to the Philadelphia Hospital, etc. With 40 colored plates and 278 illustrations in the text. Philadelphia and London: W. B. Saunders & Co., 1902. Agents for Canada: J. A. Carveth & Co., Toronto.

Dr. Zuckerkandl in this admirable book describes lucidly and tersely the operations of modern surgery in a manner well suited for the surgeon in his every-day operative work, or for the student in his operations on the cadaver. The verbal descriptions are reinforced and illuminated by a large number of excellent original cuts.

A Manual of Surgery for Students and Practitioners. By WILLIAM ROSS, M.B., B.S., Lond., F.R.C.S., Eng. Professor of the Clinical Surgery in King's College, London, and Senior Surgeon to King's College Hospital, and Albert Carless, M.S., Lond., F.R.C.S., Eng., Surgeon to King's College Hospital and Teacher of Operative Surgery in King's College, Lond.; Examiner in Surgery in Glasgow University. 7th edition, London. Bailliere, Tindall & Cox, pp. 1213. \$5.00. Toronto: J. A. Carveth & Co., Parliament Street.

It speaks in remarkable terms for any large work of to-day, that it should have passed through four volumes and reach its fifth within four years. This work is one that appeals to the student on account of its thoroughness, conciseness and the lucid manner with which all subjects are treated. It is to be hoped that the authors will in future editions, however, begin to abridge and omit everything that is superfluous.

The volume has reached that size now which is about the limit, if much more is added it will be too bulky for the student. We know of no work on surgery to-day that gives the same amount of information in as nice a manner as the one before us. That the authors are progressive, and advance the study in a scientific way, is noted by the relegation of the subject of inflammation to second place, and placing the bacteriology of surgery first. Inflammation does not play the important part that it once did, consequently should not occupy the position of prominence. The work is justly popular with the Canadian student and the practitioner as well, and is thoroughly up-to-date. The illustrations are excellent, in fact we have seen none that excelled these in X-ray illustrations. We do not feel called upon to review the work in any other than this general way. We can thoroughly recommend it, and feel that in doing so we do a great service to the profession and the student.

The Surgical Diseases of the Genito-Urinary Tract, Venereal and Sexual Diseases. A Text-book for Students and Practitioners. By G. FRANK LYDSTON, M.D., Professor of the Surgical Diseases of the Genito-Urinary Organs and Syphilology in the Medical Department of the State University of Illinois; Professor of Criminal Anthropology in the Kent College of Law; Surgeon-in-Chief of the Genito-Urinary Department of the West-Side Dispensary. Fellow of the Chicago Academy of Medicine; Fellow of the American Academy of Political and Social Science; Delegate from the United States to the International Congress for the Prevention of Syphilis and the Venereal Diseases, held at Brussels, Belgium, September 5th, 1899, etc. Illustrated with 233 engravings. 6½ x 9¼ inches. Pages xvi-1024. Extra cloth, \$5.00; net. Sheep or half-russia, \$5.75, net. The F. A. Davis Co., Publishers, 1914-16 Cherry Street, Philadelphia. Canadian Agents: J. A. Carveth & Co.

There are so many volumes issued at the present time on all subjects that one has the greatest difficulty in keeping up with the literature. Some are good, others are indifferent, and many should never have been printed. It is a waste of raw material. The volume before us, however, is one of the good ones and will find its place. The author has carefully revised his material, and while it is built on the old plans, it contains so much that is good, new and original, that it is welcome. We can recommend it to the profession as embodying the advanced ideas on the subject.

A Text-Book on Diseases of Infancy and Childhood. For the use of Students and Practitioners. By HENRY KORTK, M.D., Attending Pediatricist to Mount Sinai Hospital, New York; ex-President of American Pediatric Society, etc. Octavo, 675 pages, 169 engravings and 30 plates in colors and monochrome. Cloth, \$5.00, net; leather, \$6.00, net.

During the past decade scientific research in medicine has been especially active in the domain of pediatrics. The liter-

ature of the subject has grown luxuriantly on both sides of the Atlantic. Much of it exists in monographs and special papers, and is thus scattered and inaccessible by those conversant with the English language alone. The time, therefore, seems opportune for a work which should endeavor to gather and unify the world's best practice in a systematic and convenient volume.

This volume is, however, not in any sense a compilation. It is based upon the author's individual experience and his careful judgment regarding the work of other pediatricists. Among its chief features attention may be drawn to the exhaustive consideration given to methods of examination and physical diagnosis, the subject of infant feeding, the chapters on diseases of the lungs, stomach, intestines and heart.

Thorough treatment has been given to diseases of the blood, and the articles on scurvy, scrofulosis, tuberculosis and the various forms of meningitis will be found specially full and attractive.

In tone the volume is markedly clinical and practical, the author has aimed to spare his readers the labor of deciding between divergent views and throughout adheres consistently to his purpose of affording students and physicians a practical guide and text-book.

The work is illustrated with unusual richness, the plates being mostly original.

The Treatment of Fractures. By CHAS. L. SCUDDER, M.D., Assistant in Clinical and Operative Surgery, Harvard Medical School. Third Edition, revised and enlarged. Octavo, 480 pages, with 645 original illustrations. Philadelphia and London: W. B. Saunders & Co., 1902. Polished Buckram, \$4.50 net; half morocco, \$5.50 net. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto.

This book is intended to serve as a guide to the practitioner and student in the treatment of fractures of bones, being a practical statement of the generally recognized methods of dealing with fractures. The attention of the student is diverted from theories to the actual conditions that exist in fractured bones, and he is encouraged to determine for himself how to meet the conditions found in each individual case. Methods of treatment are described in minute detail, and the reader is not only told, but is shown, how to apply apparatus, for, as far as possible, all the details are illustrated. This elaborate and complete series of illustrations constitutes a feature of the book. There are 645 of them, all from new and original drawings and reproduced in the highest style of art. In this edition several new fractures have been described, and an excellent chapter on gunshot fractures of the long bones has been added. The reports of surgeons in the field during the

recent wars have been carefully digested, and the important facts regarding fractures produced by the small calibre bullet have here been concisely presented. In many instances photographs have been substituted for drawings, and the uses of plaster-of-Paris as a splint material have been more fully illustrated. In its new form, the work fully maintains the deserved reputation already won.

Essentials of Histology. By LOUIS LEROY, B.S., M.D., Professor of Histology and Pathology, Vanderbilt University, Medical and Dental Departments; Pathologist to the Nashville City Hospital, etc. Second edition, thoroughly revised and greatly enlarged. 16 mo. volume of 263 pages, with 92 beautiful illustrations. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth \$1.00 net. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto.

This valuable work has been designed not only as an aid to the beginner, but also to help the practitioner who, having graduated at a time when histology was not taught in all the colleges, desires to gain sufficient knowledge of the subject to facilitate his better understanding of pathology. Both these aims it admirably fulfils, as is evidenced by the demand for a second edition in so short a time. In this edition a number of new original illustrations, most photomicrographs, have been inserted to better elucidate the text. The chapter on technique has been enlarged, a description of the appendix and rectal valves added, and the entire chapter, as, indeed, the entire book, thoroughly and carefully revised. As did the first edition, the work in its present form stands as a model of what a student's aid should be; and we unhesitatingly say that the practitioner as well would find a glance through the book of lasting benefit.

Atlas and Epitome of Traumatic Fractures and Dislocations. By PROFESSOR DR. H. HELFERICH, Professor of Surgery at the Royal University, Greifswald, Prussia. Edited, with additions, by JOSEPH C. BLOODGOOD, M.D., Associate in Surgery, Johns Hopkins University, Baltimore. From the fifth revised and enlarged German edition. With 216 colored illustrations on 64 lithographic plates, 190 text-cuts, and 353 pages of text. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$3.00 net. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto.

This worthy addition to Saunders' Series of Hand-Atlases will be found of inestimable value in facilitating the student's introduction to the important department of fractures and dislocations, and as a ready reference book for the use of physicians in general practice. This department of medicine being one in which, from lack of practical knowledge, much harm can be done, and in which in recent years great importance has obtained, a book accurately portraying the anatomic relations of the fractured parts, together with the diagnosis and treat-

ment of the condition, became an absolute necessity. The work before us fully meets all requirements. As complete a view as possible of each case has been presented, thus equipping the physician for the manifold appearance that he will meet with in practice. The author has brought together in this work a collection of illustrations unrivalled for accuracy and clearness of portrayal of the conditions represented, showing the visible external deformity, the X-ray shadow, the anatomic preparation, and the method of treatment. We have no doubt that the book will be received with the favor it demands, filling, as it does so admirably, a want long felt.

Treatise in Diseases of the Skin. By HENRY W. STELWAGON, M.D., Ph.D., Clinical Professor of Dermatology in the Jefferson Medical College and Woman's Medical College, Philadelphia, etc. With 220 illustrations in the text, and 26 full-page lithographic and half-tone plates. Philadelphia and London: W. B. Saunders & Co., 1902. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto.

This is not exactly the sort of book that the ordinary student wants; it is really not published for him, but rather for advanced or post-graduate students and practitioners. The author's aim has been to give the readers of the book a full comprehension of the symptomatology, diagnosis and treatment of diseases of the skin. The symptoms are detailed at some length in a remarkably clear way. Much attention is paid to diagnosis and treatment. It is difficult in the space at our command to do justice to such an admirable work as this. A first year student can read it with interest, and understand it without excessive brain work, and yet the ordinary physician in practice will be well satisfied with it in all respects. It is really a practical book for men in practice; but pathology and bacteriology are by no means neglected. We have no hesitation in saying that the book is thoroughly up to date, and is in all respects well suited for general practitioners in all countries.

PRELIMINARY NOTE UPON EMPLOYMENT OF AN ANTI-STREPTOCOCCUS SERUM IN SEVERE CASES OF SCARLET FEVER.*

By GEO. A. CHARLTON, M.D.,

Fellow in Pathology, McGill University; late Resident Physician, Montreal Civic Hospital for Contagious Diseases.

[From the J. H. R. Molson Pathological Laboratory, McGill University.]

In the number of the *British Medical Journal* for October 4th, just to hand, there appears (p. 1086) a paragraph upon a communication by Dr. Paul Moser, of Vienna, to the meeting of the German Naturforscherversammlung held recently at Carlsbad, dealing with the results which, in his hands, have followed the employment of an anti-streptococcus serum in the cure of scarlet fever.

His serum, it would appear, had been produced in the Serotherapeutic Institute of the Rudolph Hospital under the superintendence of Dr. Paltauf, Professor of Pathology in the University of Vienna, by injecting horses with the products of cultures of streptococci obtained from the blood of scarlatina patients. The streptococci had been isolated by him from the blood of 63 out of 99 children who had succumbed to the disease. The "serum has been used clinically since November, 1901, in about 84 cases, with the result that the mortality among 400 cases of the disease in the St. Ann's Hospital has been reduced one-half. Only the more severe cases in the hospital were treated with the serum on account of the difficulty in obtaining a sufficient supply. All of the children who were treated within three days of infection recovered; their condition underwent a striking and rapid improvement, and the pyrexia in many cases greatly abated. So far the serum has not been produced in a concentrated form, so that a comparatively large quantity has been injected into each patient. In some cases erythematous eruptions developed, but they soon disappeared. Prof. Paltauf and Prof. Escherich, Director of the St. Anne's Children's Hospital, testify to the good results obtained with it, both in the cases of children and adults." The paragraph proceeds to state that the Austrian Government is about to devote a considerable sum to the purpose of preparing the serum in large quantities for distribution to all hospitals.

Unknowingly I have, for now close upon two years—to be exact, since January 26th, 1901—been engaged upon a similar series of studies upon the cases of scarlet fever admitted to the Montreal Hospital for infectious diseases, and upon the treatment of the same. The results obtained by me follow closely

* Read before the Montreal Medico-Chirurgical Society, October 17th, 1902.

upon those detailed in the paragraph I have just read; in fact, they seem more remarkable. So striking have they been that I have felt that I dared not publish on the subject until I had accumulated a larger number of cases and could place myself in a position beyond any reasonable doubt. My intention had been to wait until I could report upon at least thirty, preferably fifty, cases that had undergone the particular treatment, the number depending upon whether the epidemic of last year continued through to this autumn and winter. The singular harmony between the results here in Montreal and those recorded from Vienna absolves me, I think you will agree, from the necessity of waiting any longer. I only add that I make the matter public at this juncture, not with any intention of claiming priority, for obviously Prof. Moser and his fellow-workers already possess such priority in publication--and that is the only priority which is permitted to stand nowadays--as also in the use of a successful serum, but to let it be known that here in Montreal and on this continent, similar studies and clinical observations, conducted independently, have led to similar results. And, more particularly, I desire to engage your interest in the matter and your aid in obtaining more cases for the employment of this method of treatment, to the end that it may be placed upon an absolutely secure basis.

During the time in which I have been engaged upon this work 117 cases of scarlet fever have been studied bacteriologically. Cultures have been taken from the tonsils and pharynx in all these cases, and streptococci have been found in 65, or 55.5 per cent. of those examined. From 25 of the most severe cases cultures have been taken from the blood during life, relatively large quantities of broth being employed for the purpose. In these I found streptococci invariably present when the blood had been obtained during the first five days of the disease. I also succeeded always in obtaining cultures of streptococci from the pus from suppurating cervical glands and in the discharge from the ear in the case of otitis media. The urine also, in suitable cases, contained streptococci, particularly if the patient had marked albuminuria at the time of examination. Courtois has found streptococci in the urine of 91 per cent. of the cases of scarlet fever examined by him while the patient was suffering from an attack of albuminuria, and in 27 per cent. of those without albuminuria. Many other workers have, from time to time, noted the frequency with which streptococci are to be found in scarlatinal anginae, more especially I might here mention Kurth, Seitz, Booker, Pearce and Dowson, all of whom have written lengthy reports giving the results of their investigations.

I would here note that for some months I was considerably

interested in endeavoring to confirm the work done by Class, of Chicago, upon an organism which he has termed the *Diplococcus Scarlatinae*. There is no doubt that an organism corresponding with that described by him can be isolated from cases of scarlet fever, especially when his methods are followed, but I was unable to satisfy myself that it had anything to do with the causation of the disease. However, I must add that the streptococcus also does not appear to be the essential agent in the disease, as has been claimed by D'Epine and others. In the mild, uncomplicated cases streptococci were not found. These cases gave no trouble and, after the first week or more, required little more than detention in quarantine. My bacteriological studies, carried on at a time when I was also observing the cases clinically, bred in me the conviction that the streptococcus leads to a secondary infection, and that this secondary streptococcal infection is the cause of most, if not all, of the unfavorable complications of the disease. The severity of the attack appears to be due to the concurrent, or, as Roger employs the term, symbiotic action of this micro-organism and the causative agent of scarlet fever upon the susceptible individual, much as it has been noted that streptococcus infection renders diphtheria more severe, though the ill-effects of this symbiosis in scarlet fever appear to be still more marked.

The administration of anti-streptococcus serum was therefore indicated, to counteract the effects of the toxins of the streptococcus and to bring about the destruction of that organism. For it appeared that if this could be accomplished, the cases would resolve into a less severe type and the prognosis would become more favourable.

The various anti-streptococcal sera have, from time to time, been tried in these cases by Baginsky and others, including myself, but with little or no result. Within the last few months, however, I have had submitted to me, and have been given the opportunity to test, an anti-streptococcal serum, produced in the biologic department of the firm of F. Stearns & Co., of Detroit and Windsor, under the direction of Dr. Hubbert, head of that department. Full information has been given to me regarding the mode of production of that serum, and I have myself tested and tried the streptococcus employed in the process of production. It is but fitting that Dr. Hubbert should himself announce the methods by which he has obtained this serum. All that is necessary for me to state is that it is produced along the lines of other sera, a special process being employed, and that in my hands it has proved itself remarkably effective. Nor shall I pretend to explain why one anti-streptococcal serum is more active than another in this particular class of streptococcus infections, nor discuss whether we here have to deal with a

distinct species of streptococcus, or with a strain modified by growth in association with the causative agent of this particular disease.

So far, since the 24th of June last, I have employed it in the treatment of 15 cases. These cases were all severe, and the majority of them, I have no hesitation in saying, under ordinary treatment, would, if they had not terminated fatally, at least have suffered from lingering and troublesome complications. As it was, there were 13 prompt recoveries, almost free from complication. Not one of the 13 has suffered from albuminuria nor from suppurative otitis media. In all, upon admission to the hospital, there was involvement of the cervical glands, but in only two instances did this go on to suppuration; the usual termination was by resolution within 48 hours after the injection of the serum. Another interesting feature of these cases was the rapidity with which desquamation proceeded. It was usually completed by the thirty-second day of the disease, and thus it frequently happened that a severe case was discharged before a milder one which had been admitted at the same time, but had not been treated by the serum.

Two deaths have occurred in this group of fifteen cases. One of these patients was in a dying condition when admitted to the hospital, and lived only four hours. The other, upon admission, was suffering from a severe pneumonia, and though improving somewhat, succumbed five days later to an attack of laryngeal diphtheria.

The quantity of serum injected has been moderate. My usual dose has been 20 c.c.m., but in those cases which from the severity of the attack seemed to require a larger quantity, this dose has been repeated. In this respect the serum appears to be more active than that employed by Professor Moser. The effect was usually prompt; the temperature began to fall within two hours after giving the injection, and became normal in from two to four days. There has been no other treatment in these cases except stimulation during the first three or four days, with the usual precautions as to laxatives, diet and rest. And lastly, no adverse symptoms, either local or general, have so far arisen from the use of this anti-streptococcic serum.

It does not, I hold, cure scarlet fever, but its timely administration in the severe cases tends to allay unfavorable symptoms, overcomes complications, and, given at an early stage of the disease, it prevents a fatal termination.

Thus, to sum up, the results seen by me to follow the injection of this anti-streptococcic serum in severe cases of scarlet fever have been:

1. Rapid subsidence of the pyrexia.
2. An accompanying decrease in pulse-rate, with improvement in tension and rhythm.

3. Prevention, or, at least, marked amelioration of such complications as cervical adenitis, otitis media, and albuminuria.

4. Rapid and favorable convalescence in the majority of cases.

I am not prepared to lay the most stress upon the reduction in mortality. It is true that from my clinical experience of the scarlet fever cases in Montreal during the last two years, individually I should have expected a fatal termination in the majority of the cases treated with this serum, so severe did they seem to be. But the intensity of scarlet fever notoriously varies, and again, despite the most earnest desire to preserve an evenly balanced mind, when greatly interested in a subject I recognize that this is most difficult. The physicians who sent these cases into the hospital are possibly more fitted to express an opinion. What I would emphasize is the most remarkable and rapid subsidence of serious symptoms which, in case after case, followed the employment of the serum. I have never previously seen the disease pass so suddenly from a severe, not to say alarming, to a relatively mild condition.

I hope later to publish the results of the observations in fuller detail; in the meantime, I feel that this is a matter of such promise and high import that I beg the co-operation of those here present in affording opportunities for confirming the results which I have just placed before this society.—*Montreal Medical Journal.*

OBSERVATIONS ON ANESTHESIA OF THE DRUM MEMBRANE.*

By GEORGE E. McAULIFFE, A. B., M. D.,

Oculist and Aurist, Red Cross Hospital, Northwestern Dispensary, Harlem Hospital, N. Y.
Mothers' Home; Con. Aurist Metropolitan Throat Hospital. Adj. Professor Otology
N. Y. Polyclinic; Assistant Aural Surgeon, Manhattan Eye and Ear Hospital.

The majority of clinicians do not believe in trying to obtain local anesthesia of the membrana tympani. Their deductions have been drawn in the main from the futility of using cocaine for this purpose in the external auditory meatus. It is but rational to believe that Nature protects the tympanic cavity from the effects of fluids dropped by chance or design into the external canal. This protection is given by the dermal layer of the drum membrane—a skin without glandular action or hair, acting only as a shield for the layers beneath.

Jacques, by utilizing the selective action of methylene blue, mapped out the nerve plexus in the middle layer of the drum membrane. The nerves spread out in radical meshes from the

* Read before American Otological Society at New London, Conn., July 7th, 1902.

periphery—mostly from above. In the deeper portion of the dermal layer detached bundles run in different directions and end in apparently sensory end tips.

The mucous membrane of the Eustachian tube and of the tympanic cavity get their main nervous supply from the same source—the glosso-pharyngeal.

From a consideration of these facts we see that the external dermal layer has very little to do with the sensitivity of the drum membrane, and that most of the medicines dropped into the ear or applied to the drum membrane have little effect until they nullify the shield-like action of the skin covering.

The fact that refrigeration does not extend deeply enough to desensitize the membrane demonstrates the truth of the former of the above-mentioned conclusions. Furthermore it cannot be localized to the track of the intended incision. The refrigerating sprays need a space of a few inches to secure evaporation. This would bring under its action the whole membrane and canal. I tried to get a tip devised for spraying ethyl chloride on the region of the membrane selected for operation, but was not successful. The application of the spray to the sensitive canal and the subsequent thawing are very painful. I have thought that if liquid air could be applied, as it is claimed, by a cotton applicator it would be the ideal refrigerant knife for the membrana tympani. Unfortunately, too, refrigerants interfere with healing and may cause sloughing.

Various preparations like Bonain's—menthol, carbolic acid and cocaine—depending for their action principally on the carbolic acid, have been used. More or less success has been reported. I do not believe that the anesthesia obtained by this class of cauterants is ever complete, for reasons given above.

Fluids which disturb the osmotic equilibrium of the drum membrane and produce minute solutions of continuity in the dermal layer, thereby allowing cocaine or its succedanea to reach the nerve filaments, are the best we have at present for use in the external canal.

The conditions favoring this application of cocaine are: (1) The removal of foreign substances and loose scales from the drum membrane and canal. (2) Dehydration of the outer layers of the membrane—a dessication which causes molecular contraction and interstices through which the anesthetic can reach the deeper parts and nerve terminations. (3) The induction of endosmosis. The first condition is met by the use of hydrozone, which is stronger and better than any other kind of H_2O_2 preparation in softening and boiling out the debris of the canal and in lessening the resistance of the dermal layer. The hydrozone is subsequently mopped out by cotton applicators or syringed from the canal. The second and third conditions are met by

the use of alcohol and aniline oil. The latter is absorbed more slowly, and its effects last longer than the former. The solutions used are 5 to 20 per cent. of cocaine in equal parts of absolute alcohol and aniline oil. Anesthesia is gained in 10-15 minutes. The disadvantage of the solution is that the aniline oil is toxic and obscures the field. The external canal is generally filled to insure osmotic instability and certainty of penetration. The toxicity can in a great measure be prevented by not filling the canal, but by applying to the drum membrane a small wad saturated with the solution and by making only one application. The obscuration of the field by the dark oil will then be less and the solution can be more easily mopped away.

For the last six years I have experimented desultorily with tubal injections of cocaine to desensitize the drum membrane. I have tried fractional experiments, applying the anesthetic to the pharyngeal orifice, to the cartilaginous portion and to the deeper surface of the tube and to the drum cavity, by means of a Weber-Liol catheter or a virgin silver modification. I have come to the conclusion that the Eustachian tube is the only channel through which local anesthesia can be best obtained.

In the embryo $\frac{1}{3}$ of an inch long, the drum membrane is represented by connective tissue, bounded below by the external canal, which forms its skin covering, and bounded above by the Eustachian tube, which forms its mucous covering.

From this embryological formation and from the identity of nerve supply, we find the reason for the fact that anesthesia of the deeper portions of the tube will produce anesthesia of the drum cavity and membrane. It may seem like begging the question to state this, but my trials have forced this home to my mind. I do not believe that the five or six minims I blow into the tube are sprayed by the Politzer bag into the tympanic cavity. I think that absorption of the cocaine by the tubal mucous membrane affects the drum and membrane intermediately and by reason of continuity of structure. The fact that cocaine anesthesia has a field of action of about an inch from the spot to which it is applied, would likewise bring the tympanic membrane within the area of tubal anesthetization.

Unfortunately the lymphatic system of the ear is not well known. If I may be allowed to digress, I think that the production of acute otitis media might be explained more by the theory of absorption from a tubal focus or of continuity of structure than by the mechanical one (sometimes urged) of septic matter blown through the tube into the tympanic cavity.

After having forced the cocaine solution into the tube, I have found that in a short time—a time varying in length according to the amount of vascularity present—probing the different areas of the dermal surface of the membrane would occasion little or no distress.

My observations with this method of comparative sensibility do not coincide with those of Dr. Blake, who finds that the areas of the membrane from below upwards and from the umbo backwards increase in movement vascularity and pain. I have sometimes found a trifle of sensibility at the lower margin of the membrane, and at the region of the stapes entire absence of any but tactile sensation.

These facts and observations on atrophic drums have shown me that the dermal layer need not be considered in local anesthesia of the membrane, and does not play so great a part in sensation as the mucous layer, since palpitation of the skin surface does not elicit pain, although it reaches only the mucous membrane. (2) That the pain in palpitation does not result from the local impact, but from the excitation of the whole sensory apparatus of the tympanic cavity, induced, no doubt, by the sudden abnormal inward movement of the drum contents. (3) That the pain of incision depends on the impression made upon the drum membrane by the knife as much as on the cutting. (4) That the incision should consequently be made with the minimum of inward pressure and with as sharp and as thin a knife as practicable. This explains why incision in the membrane is made so much easier by the use of the Graefe knife than by the poor knives made especially for the work—knives whose smallness of blade precludes sharpness of edge. (5) That in order to produce the best results in this method of anesthesia, isotonic or iso-osmotic solutions of cocaine should be used in order to avoid edematization of the tube and subsequent transient otitis media.—*New England Medical Monthly.*

THE VALUE OF GUDE'S PEPTO-MANGAN IN ANEMIA.

By DR. ENRIQUE DIAGO, HAVANA,
Superintendent of Hospital No. 1, Havana, Cuba,

AND

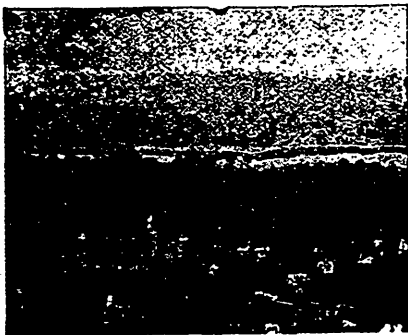
DR. JOSE F. BENITEZ, HAVANA,
Chief of the Laboratory, Hospital No. 1, Havana, Cuba.

Anemia is a very common disease in this country (Cuba), and consequently one against which the physician is often obliged to contend in the practice of his art. While the use of the ordinary iron preparations often give all the effects that could be desired, yet it usually produces a condition which may be regarded as a secondary disease—constipation. In looking about for a preparation which would not present this very serious disadvantage, which cannot always be counteracted by the coincident administration of laxatives, we came across

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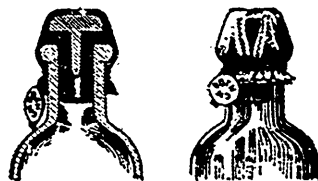
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Gude's pepto-mangan, which, according to the published statements of many clinicians, seemed to us a remedy worth trial in a large series of cases. Accordingly, we obtained a sufficient supply of this preparation for our hospital, and began to treat all our cases of anemia, in which iron was indicated, with Gude's pepto-mangan.

In presenting now the results of our observations with this pharmaceutical compound, we may say at once that our expectations were more than realized, when we noted its efficiency in combating the disease, and its perfect palatability and freedom from constipating after effects.

One of us, Dr. Benitez, chief of the laboratory of the hospital, undertook the task of keeping minute records of all the cases observed; including a record of the amount of hemoglobin and of the number of the red blood cells, both before and after the treatment. For the purpose of illustration, we relate briefly six cases, which show conclusively the effects of Gude's pepto-mangan on persons with anemia, and prove without doubt that the administration of this remedy is connected with none of the disadvantages and discomforts attending the use of the ordinary preparations of iron.

CASE 1.—N. G., aged twenty-six years, was admitted to the hospital, suffering from loss of nutrition, emaciation, pallor of the skin and mucous membranes, loss of memory, anorexia, mental depression,—in a word, from all the typical symptoms of anemia. This condition was traced in his case to a chronic malaria, from which the patient had been suffering for a long time. The patient weighed only 102 pounds at the time of admission.

Pepto-mangan (Gude) was given in doses of two tablespoonfuls twice daily, at breakfast and at dinner respectively, with some cinchona wine. The first blood examination showed 2,400,000 red blood corpuscles c.m., by the thoma-zeiss method. Ten days after the beginning of the treatment, this patient, who had been so extremely pale when he entered, began to improve as regards the color of his cheeks and general appearance. His general well-being was so marked that he spoke with pleasure of the marked improvement in his condition which had taken place since he had been taking the new remedy at our hospital. In these ten days he had gained five pounds in weight and was able to walk around the ward without the lassitude which he had felt when he was admitted. The blood was examined a second time, showing an increase of 300,000 red blood cells. The patient was discharged cured after fifty days' treatment, weighing 130 pounds and with a blood-count indicating 2,800,000 red blood cells c.m.

CASE 2.—Mrs. C. D., aged 34 years, who gave a history of

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miscarriage, was admitted with the symptoms of anemia, secondary to the loss of blood occasioned by the accident mentioned. The chief symptoms were emaciation, loss of strength, and gastro-intestinal disturbances. She weighed only ninety pounds when she entered the hospital, and her blood showed a marked diminution in the amount of hemoglobin, and only 2,300,000 red blood cells to the cubic millimetre.

Gude's pepto-mangan was prescribed in the same doses as in the preceding case, and all went well until the tenth day, when the patient of her own accord, in order to facilitate the cure, and to accelerate the recovery, took five tablespoonfuls of the preparation during the day, causing a slight disorder of the stomach. The administration of pepto-mangan was thereupon discontinued, and tablets of bismuth and salol, together with a purgative were given. Five days later the pepto-mangan was resumed, at first in doses of two teaspoonfuls, and two days later in doses of two tablespoonfuls. The further course of the treatment went on without any mishap, and the patient recovered completely. On leaving the hospital the hemoglobin was found normal, and the number of red blood cells was found to have increased to 3,500,000 c.m., while the patient's weight had increased twenty-one pounds within fifty days.

CASE 3.—Mr. M.D., aged 26 years, who had suffered during the preceding month from an attack of acute articular rheumatism involving a number of joints, entered the hospital complaining of the symptoms of anemia. He had the appearance of a convalescent, with pale skin and mucous membranes, fatigue in walking, emaciation, etc. There was edema about the ankles, but no valvular lesion in the heart, and there were in addition, absence of appetite, insomnia, functional depression of the genital apparatus, and dyspepsia. The patient weighed only 92 pounds, and his blood when examined showed a decrease in the amount of hemoglobin and only 2,500,000 red blood cells c.m. At the end of fifteen days' treatment, which consisted of the administration of two tablespoonfuls of pepto-mangan (Gude) at breakfast, of the same amount at dinner and of an additional tablespoonful at noon, the patient had gained a great deal of strength, his pallor had almost disappeared, the hemoglobin had increased and reached its normal quantity, and the red blood cells had increased to 3,200,000 c.m. The patient was therefore discharged completely cured at the end of forty days after admission.

CASE 4.—Mr. R. G., aged 42 years, who did not show any signs of organic disease, and who presented no characteristics of a gouty or lithemic diathesis, was admitted to the hospital in a greatly disturbed state of mind on account of attacks of vertigo, palpitation of the heart, extreme weakness, and various

Materia Medica and Therapeutics.

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(FROM THE MONTHLY CYCLOPEDIA OF PRACTICAL MEDICINE.)

The study of infectious disease received a new impetus and was placed upon a new basis when the agency of bacteria in its production was discovered. The efforts of clinicians were then directed to the influence of remedies upon the parasitic and living causes of disease. The great *desideratum* was to find substances having the power either to destroy microbes or to neutralize the noxious products which they elaborate. In the course of such experimental studies, however, we were led to realize more forcibly than ever before the resistant powers of the human organism. It was learned that it was not the mere presence of bacteria within the body that is the most significant fact, but their germination, reproduction and cultivation, and, above all, the poisonous products by which the infection of blood and tissues is accomplished. Thereafter the fortification of the organism acquired fresh importance. The attention of physicians was directed not only to the destruction of micro-organisms and the neutralization of their poisons, or toxins, but also to the assistance of the tissues in their struggle against the invaders.

So long as, by any and every means, general nutrition can be maintained at the normal standard, there is little to be feared from the presence of pathogenic bacteria. If, however, the general vitality be reduced by any cause, our diminutive foes can then not only enter, but can contaminate the system.

These discoveries have thrown new light upon the operation of many medicinal substances, and have served to direct our energies to the support of the threatened organs and tissues. A nutritious principle which is so influential in promoting the digestion of one of the great food-groups, viz.: the carbohydrates—has a wide range of applicability. It adds to the nourishment of the feeble. It restores digestive power and physical energy to those who have been notably reduced by lingering illness. It promotes the healthy growth of muscular structures and strengthens the functions of secreting glands.

Accordingly, skilfully prepared and reliable preparations like those of The Maltine Company, of Brooklyn, have long been favorably known to and beneficially employed by physicians in the large class of morbid conditions in which they are indicated. Several active remedies or combinations of remedies have from time to time been added to the plain Maltine in order to adapt it to a wider field of usefulness. The latest of these excellent additions to a worthy line of products is Maltine with Creosote.

In the purely medicinal, as distinguished from the climatic treatment of tuberculosis, Creosote has approved itself as a remedy of the first rank. It undoubtedly possesses a considerable inhibitory influence over the development of the bacillus tuberculosis. It relieves the prominent symptoms of phthisis more effectually than any other remedy. Creosote is often able to hold this destructive malady in abeyance for an indefinite period or practically cure the disease. Therefore a combination of Maltine with Creosote appeals most powerfully to the medical profession. So much of the physician's work has to do with tuberculosis in its varied manifestations and localizations that a warm welcome will doubtless be extended to this new preparation. Its nutrient and antiseptic properties render it admirably adapted to fulfil many important indications. Each fluid ounce of Maltine with Creosote contains 4 minims of pure (Beechwood) Creosote. Creosote is an efficient remedy in many morbid conditions of the intestinal tract, and this new combination will, consequently, be found of service in many cases of chronic indigestion.

erratic pains in the muscles. He gave a history of a recent attack of influenza, during which his nervous symptoms had become intensified. He had not had a very marked rise of temperature, and the respiratory passages were scarcely affected during this attack, but there were severe pains in the back and joints, and an intense headache. The examination of the blood showed the presence of 3,000,000 red blood cells c.m., and the patient was found to weigh only 110 pounds.

He was placed exclusively on pepto-mangan (Gude) treatment. Twenty days later the pains had ceased; he ate well; his weight had increased to the extent of four pounds, and the red blood corpuscles had increased in number by 200,000. Thirty days after admission he was discharged cured.

CASE 5.—Miss C. P., aged 16 years, was admitted to the hospital with a very pale skin and a deficient muscular and adipose development. Her menstruation had become irregular, and she had suffered from various nervous disturbances. Her growth had not kept in harmony with her nutrition, and she presented the characteristics of chloro-anemia, as frequently seen in Cuban girls,—namely, accompanied by a series of neurasthenic symptoms. She weighed only 87 pounds, and the blood-count showed only 1,800,000 red blood corpuscles c.m. After ten days' treatment the number of red blood corpuscles increased by 200,000, and the weight of the patient by three pounds. Twenty-six days after admission she was removed from the hospital by her relatives, and on discharge her weight was 94 pounds.

CASE 6.—Mr. G. F., aged 38, whose previous history was negative, and who had not suffered from any severe illness shortly before admission, entered complaining of loss of flesh and strength, decrease of normal weight and extraordinary fatigue after his usual work. He attributed these symptoms to transgressions of hygienic rules. The first blood examination showed 2,600,000 red blood cells c.m. The patient weighed 106 pounds on admission. Thirty-six days later, after having been under treatment with pepto-mangan (Gude) during the entire period, he was discharged at his own request. He had increased eleven pounds in weight and his red corpuscles numbered 2,850,000 c.m. (an increase of 250,000). He went back to his usual work without experiencing any unusual fatigue.

To sum up the results obtained with the employment of pepto-mangan (Gude) in the treatment of anemias, we may say conscientiously, that it is the best remedy we know of for this purpose, and that we do not hesitate to commend it to the medical profession at large, and especially to our confrères in Cuba, as an iron preparation that possesses all the advantages

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that can be demanded of such a remedy and none of the disadvantages that are characteristic of other iron preparations. We would especially emphasize also that pepto-mangan (Gude) is very pleasant to the taste, and is most easily taken by patients of all ages and with the most delicate digestions.—*Translated from the "Progreso Medico," Havana, April, 1902.*
Havana, March, 1902.

Lord Macaulay Says: "Every Clinician Becomes an Historian."

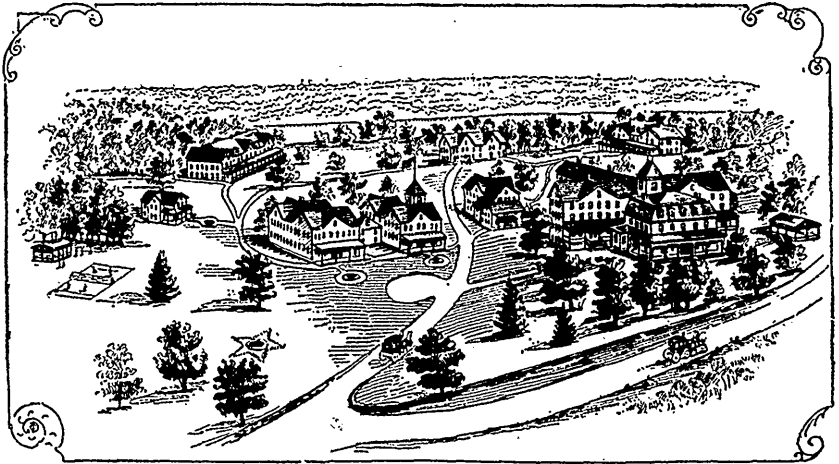
Lord Macaulay briefly epitomized history as the "Record of Events." Be it so. The pleasant task of collection and verification of data falls upon the historian, who retells in an interesting and enthusiastic manner the lives and acts of others.

In medical history, as in secular, the value of an epoch often rests upon the work of the individual, and the true portrayal of one incident in life lends color to the complete narrative. Acts, not words, illustrate the advance of progress in science and literature.

The desire of one person to know precisely why another individual preferred certain methods to old-established forms necessitated history. The narrator of the events of daily life is the true historian, and produces items of interest worthy of future history. The construction of records from this material constitutes the validity and worth of the article. What you do and tell to-day, if approved, your fellow man will perform to-morrow. Therefore, the discovery of an aid to the burden of work-a-day life is more important than determining a new chemic element. One helps the masses, the other invites speculation from the few. History thus recites incident. Incident depicts facts, and facts destroy theories, as the following abstract convincingly states:—

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