

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

Coloured covers /
Couverture de couleur

Covers damaged /
Couverture endommagée

Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée

Cover title missing /
Le titre de couverture manque

Coloured maps /
Cartes géographiques en couleur

Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire)

Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur

Bound with other material /
Relié avec d'autres documents

Only edition available /
Seule édition disponible

Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure.

Coloured pages / Pages de couleur

Pages damaged / Pages endommagées

Pages restored and/or laminated /
Pages restaurées et/ou pelliculées

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Pages detached / Pages détachées

Showthrough / Transparence

Quality of print varies /
Qualité inégale de l'impression

Includes supplementary materials /
Comprend du matériel supplémentaire

Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées.

Additional comments /
Commentaires supplémentaires:

Continuous pagination.

KINGSTON MEDICAL QUARTERLY.

VOL. I.

JANUARY, 1897.

NO. 2

THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association is now practically co-extensive with the British Empire. Local branches of the Association have from time to time been established in the larger cities and towns throughout British Isles and the Colonies. Halifax, Montreal, Ottawa, Toronto and Victoria are the local centres of the Association in Canada. Every year the Association meets for the transaction of business and for the discussion of matters of interest to the Medical Profession. Hitherto the meetings have all been held in Britain. Next year Canada is to be honoured, as no Colony has yet been honoured, by the Association holding its Annual Meeting in Montreal. While Montreal is to be particularly congratulated upon securing the distinguished honour and privilege of the the next meeting of the Association, we feel that the whole Profession in Canada is under obligation to make this meeting a marked success. Many men of world-wide reputation, both from Britain and the United States, will be in attendance, and for the good name of our Dominion the members of the Profession in Canada ought to unite and so favourably impress our visitors that they will return to their various homes feeling that we in this country are not unworthy scions of the great British Nation. The gathering ought not to depend solely for its success upon the efforts of our Montreal confreres. Nor will it. Already those in Montreal who have charge of the arrangements have received assurances of co-operation and loyal support from all quarters of the Dominion. The meeting will be one of unprecedented interest. All who at-

tend will not only assist in making it a success, but will themselves receive direct benefits. To hear the papers read and to listen to the discussions upon them will more than repay any practitioner all the time and money which his attendance will necessitate his expending.

To facilitate business and to enable the Association to consider a greater variety of subjects the members will meet in sections, each section being devoted to a special Department of Medical Science. There will be sections devoted to the following:—Medicine, Surgery, Obstetric Medicine and Gynæcology, State Medicine, Pharmacology and Bacteriology, Anatomy and Physiology, Psychology, Diseases of Children, Ophthalmology, Laryngology and Otology, Orthopaedics and Dermatology. The meetings of these sections will be held in the buildings of McGill College. As all of these buildings are within three minutes walk of McGill College no one need lose time in going from one section to another, and everyone may devote his time and attention to that department in which he is most interested.

None but members of the Association are permitted to attend the meetings and to take part in the discussions. Any regular practitioner may become a member by being regularly proposed in any Local Branch and on payment of the regular fee, viz., \$5.25. This fee entitles one to membership for one year during which time he will receive the British Medical Journal. Blank application forms for admission may be had from the Secretaries of the Local Branches. Those who purpose attending the meeting should secure their membership in the Association as soon as possible, and also notify the Committee in Montreal of their intention to be present.

We bespeak a great success, and in their own interest we would ask the members of the Profession in this section of the Dominion to heartily co-operate with their confreres in Montreal to make the meeting of 1897 a memorable one in the annals of the British Medical Association.

CERTIFICATES OF INSANITY.

(READ BEFORE THE KINGSTON MEDICAL ASSOCIATION.)

CANADA is one of those happy little countries, apparently much nearer the City of Utopia than either the Land of Freedom on our South, or the Mother Country far across the sea, for the general public has faith in its institutions, and if we take as an example the confidence the people have in the Governmental control of its Hospitals for the Insane, we have advanced a strong argument in favor of the assertion. This is a fortunate thing both for the general practitioner and the heads of institutions, for they are loaded with responsibilities not always appreciated, if a careful examination of the facts at hand is made. Now it would be in very bad taste for me to find fault with the busy general practitioner, even if he has at times made trifling mistakes which might have caused him serious trouble in some countries, and I hasten to assure you that my faith in his conclusions is unbounded, even if his method of expressing himself has been at fault in many instances. As a matter of fact in an experience of nearly twenty-three years in Hospitals for the Insane, how often have I seen the verdict "not insane" rendered by the Hospitals authorities? In one or two instances only, in cases where patients were certified to by physicians, and even in these cases I will confess that the physicians were probably right for they had opportunities of judging patients not under control, and in certain varieties of insanity you understand how necessary this is in order to form an opinion of any value. Now if I can say that in an experience of twenty three years, I have never known a general practitioner grant a certificate of insanity dishonestly and with intention to deprive a sane subject of his liberty, and the late Dr. Joseph Workman could say the same thing in regard to a period of twenty-two years before my time, we have a record of forty-five years covering, say nine or ten thousand cases of insanity, in which there has been no appeal against the verdict of the general practitioner, and in which if there had been an appeal, the honesty of such practitioners would have been made plain, although their methods might have been criticized. Now there have been cases where the patients committed to the Hospitals for the Insane have been discharged as not insane, but these have been sent there by all wise grand juries, in whom on state occasions is vested the authority to pronounce on a man's mental condition. Possibly I may speak some-

what slightly of juries, because my opinion has so seldom been regarded worth listening to by them, and really our methods of arriving at opinions have been so different that when we have reached conclusions, it is no wonder there was a difference. However, as a good many general practitioners have at times expressed faith in the opinions of the juries, and you have seen what a high regard I have for the conclusions of the practitioner, basing this on long experience, you will easily understand how modest I can afford to be about my own opinions. Now if I can say such complimentary things about the honesty of the busy general practitioner and his conclusions, how is it possible to criticise his methods with any degree of success. The excuse must be that in other countries, in certain instances, where practitioners have been equally honest and conscientious, they have suffered at the hands of the law because they failed to make their opinions clear and convincing in the eyes of the law, and when you have had as much experience as I in this line, you will realize what a task this is. There is something to be said too on the side of the law, and as a matter of fact we cannot be too careful in making out a certificate which is to deprive a man of his liberty, and liberty is the greatest right State confers on any man. The very fact that we have been so free from prosecution in the past has made us careless, and is no guarantee that we shall be exempt in the future. If then I speak in a somewhat dictatorial fashion about things you may all be familiar with, you must make allowance for the fact that it is in the general interest that this is done and with the hope that all may escape the unpleasantness of a prosecution. "To be forewarned is to be forearmed" must be my text.

Very few people, physicians included, if I may be permitted to make so sweeping an assertion, realize when talking to an insane person, that the delusions expressed are the outcome of brain disease. It is a difficult thing indeed to get oneself into the attitude of realizing that the brain is the organ of mind, and more difficult still to understand that the grotesque display and excitement so often exhibited are the result of disordered brain function. The law insists, quite properly too, that certificates of insanity shall be granted by physicians, and if they do so improperly and in a slipshod manner their punishment may be severe. The majority of physicians have had few opportunities of studying mental diseases clinically, and naturally find themselves in deep water when asked to certify in certain cases. The Science of Medicine has become so large that we cannot expect

a man to cover the whole ground, and the best he can do is to have a general idea of some subjects that are necessarily forced into the debatable field of specialism. Now the best I can do is to offer you a few general suggestions of a practical nature, and to lay stress on some important points.

If we take a hundred medical certificates of insanity and read them critically, the first thing to be noticed is that the physicians have dealt largely in generalities, and this is just what they should not do. Here is a typical certificate, one that stands as a pattern for hundreds of others. Under the heading, "Facts indicating insanity, observed by the physician"; "the presence of delusions, general expression, appearance of the eyes and conversation." Now this is the important part of the certificate, and we will suppose that it comes up in court, how long will it stand before the cross-fire of a lawyer? How many facts indicating insanity have we here? The first statement "the presence of delusions" is one dear to the heart of many a Doctor, in fact I know one who has it stereotyped in his mind to such an extent that he never uses anything else. The statement "the presence of delusions" is a general one and not a specific fact. It may or may not be an indication of insanity, for I think it would not be difficult to show that a person may be deluded without being insane. What the law asks for is not the general statement, but a description of the insane delusions and a statement of what they are, it must know the reason why a man arrives at a certain conclusion.

"The general expression" is another favorite. What general expression? The absurdity of the thing is so patent that it does not require comment, "the appearance of the eyes"; still another favorite, this "goes" with the public, for they have a legend to the effect that you can pick out the maniac by his eyes—in fact I have been picked out for one or several occasions, by my eyes, and of course it must have been by the appearance of them, whatever that means. "The conversation" is generally included as an evidence of insanity; it frequently is, especially at five o'clock teas. Perhaps you will wonder that such a certificate, a palpably absurd document when superficially analyzed, could be filled in and signed by any intelligent man, and yet, as a matter of fact, such certificates are signed by the dozen, not by the weaklings of our profession, but by some of the best of our flock. It is because they do not think of the importance of the act, and while they have plenty of evidence in the generality of cases, they forget that they are making out a record for their own

protection, a record to show the world at large why the patient should be deprived of liberty, and a defence for themselves should this opinion be doubted. Many physicians make out their certificates to satisfy *themselves* rather than others. The "general conversation" they refer to conveyed the idea of insanity to them, because it contained the facts on which they founded their opinion, they forgot to make the nature of this general conversation plain to others.

In the ordinary case of insanity it is such a simple matter to make the facts plainly understood that it should never be neglected, and it is better to be long winded than delightfully brief. On several occasions I have seen physicians in the witness box made absolutely ridiculous to the Court, because they had unfortunately dealt in general statements in certificates instead of facts. The criticism "what fools these mortals be" was universally made, but I knew that these physicians were right in their general opinions, and it was not to be wondered at if in the hurly burly of busy practice they had forgotten their facts. The only criticism I could make was that they were foolish to trust to memory for their facts. If they had stated them in the certificates at the time of examination there would have been no trouble, no hesitation, no laugh by the crowd when the very clever lawyer brought the blush to the cheek of our medical friend, when he found it impossible to back up his own opinion so awkwardly expressed in years gone by. If this paper did nothing more than impress on you the desirability of making your facts put down in certificates plain to others as well as to yourselves it would have accomplished something. Of course I have been taking it for granted up to the present that we are considering cases where insanity is patent and no difficulty exists in regard to the making of a certificate. Frequently trouble will arise, and at times it is really a very delicate not to say difficult task to certify to the insanity of a patient, even if you are satisfied that the person is dangerously insane.

Possibly the simplest way of dealing with this question is to lay down a few general rules to be considered in the examination of a person supposed to be suffering from insanity.

The first question to be considered is whether the patient is insane and irresponsible in the eyes of the law. Next—if insane, what form of insanity is he suffering from, whether it is functional or organic, otherwise curable or incurable? Shall the treatment be conducted at home or in an Hospital? If the latter treatment is decided on, then, the question of a certificate comes up and the examination

must be conducted with this end in view and the endeavour made to secure facts.

Before commencing an examination it is well if possible to get as much information as possible from others, especially in regard to his weak points, mentality, heredity, former habits, changes in speech, handwriting and appetites, etc. When your interview takes place do not practice deception, listen patiently and do not be in a hurry in leading up to delusions, take time if you can and be natural and frank in your manner. The speech must be considered for in the early stages of paresis, slight aphasia may be present, and by observing the handwriting agraphia, may be discovered. Insane delusions must always be looked for, but do not jump at conclusions, for sometimes what is classified as an insane delusion may be the statement of a fact, and sometimes what are believed to be facts are insane delusions. The nutrition of the body should be noted and the proportions of the head considered, for many of the insane have asymmetrical heads. The bodily functions should be inquired into. An important point to be considered is the temperature, for it is possible to confound the delirium of fever with acute mania, and in some cases I have seen acute mania masked by delirium. When signing a certificate of insanity remember there is often a legal risk to yourself as the patient may at some future time bring an action against you, and in some instances if you anticipate trouble it is well to get the relatives to give you written guarantees of protection in case of legal proceedings. In such a case of course it is doubly important to have your certificate so worded that there can be no doubt of the facts on which you form your opinion. Many physicians I find have difficulty in recognizing the delusions in melancholia and do not appreciate the fact that depression of spirits can pass a mark where depression of spirits becomes lost in actual insanity, and well defined delusions exist especially in regard to the functions of the different organs. These delusions are easily shown and it is useless to close ones eyes to the fact that they exist. It is better to recognize them and anticipate their bearing on the development of the idea of suicide.

There is little more to say on the subject, and I really feel that what I have said is so self-evident that perhaps it would have been as well unsaid, however it does none of us harm to consider our sins of omission once in a while, and this coupled with the fact that you asked me to write a brief paper on this subject must be my excuse.

C. K. CLARKE.

INTUBATION OF THE LARYNX IN ACUTE STENOSIS

WITH REPORT OF FIVE CASES.

(READ BEFORE THE KINGSTON MEDICAL ASSOCIATION.)

A progressive dyspnoea due to laryngeal stenosis in diphtheria, whether true or false, comes at length to require operative interference. Tracheotomy and intubation are the two methods between which the surgeon must choose. According to published statistics the chance of recovery is the same for each operation, about one in three. Gross statistics are, however, misleading in connection with these operations because croup means a great deal more than obstruction of the larynx. To properly show the value of intubation each case should be considered as to its peculiarities and complications. If the obstruction of the larynx were the only cause of death, intubation would have no failures; but every physician knows that although the stenosis may be relieved, death frequently is due to extension of the disease to the bronchial tubes, pneumonia, systemic poisoning, paralysis, especially of the heart, and nephritis. A careful study of the literature of the subject does not assist one in arriving at a definite conclusion as to the value of intubation. The opinions that have been expressed are so conflicting that one may choose either side and produce an array of authorities and statistics in support of his arguments that would appear overwhelming. Under these circumstances it is to large individual experience that we must look for conclusive evidence as to the value of intubation, both as a means of saving life and what is of equal importance, as a means of euthanasia. There are at least half a dozen operators whose aggregate number of cases now exceeds two thousand, and these individual experiences have been gained exclusively from children's hospitals in which tracheotomy had hitherto been the only surgical measure available in the treatment of croup. These speak unanimously in favor of intubation and they resort to tracheotomy only when for some reason intubation fails to relieve the dyspnoea.

In an address before the American Pediatric Society in May last, Dr. O'Dwyer, speaking of the Evolution of Intubation, used the following words:—"From the foundation of this institution (the New York Foundling Hospital) in 1869, to the inception of my experiments in 1880, we could not point to a single recovery following tracheo-

tomy, to offset the prejudice that existed against it." This was a unique experience, but it is the misfortune of many skilful operators to be unable to report any recovery following tracheotomy.

The *technique* of intubation is so thoroughly a matter of literature that it is unnecessary to describe the operation in detail here; but there are certain points which may properly be discussed.

When to operate—When a progressive dyspnoea, despite treatment, allows any considerable portion of the lungs to become non-inflated, and the labored breathing begins to produce exhaustion, intubation should be done without delay. If air cannot be inspired, pneumonia is invited, and nothing but harm can come to the lungs and heart.

How to operate—It is quite unnecessary to strip the child naked, as ordered by some operators, before winding it in a light blanket. The elbows should be pinioned to the sides and the hands down across the abdomen. There must be no bulky roll under the chin to interfere with the movements of the operator. The nurse who is to hold the child should sit upright in a high straight-backed chair, and should firmly grasp the child at the elbows, keeping the legs between her knees. This will bring the child's head on a level with her own and above the shoulder. The physician assisting stands behind the chair of the nurse, grasps the child's head between his hands and holds it firmly with the chin in the median line, and extending the chin slightly, raises the head up, to extend the neck, just as though he were supporting the weight of the child. When the gag is introduced it is included in the grasp of the assistant to insure its firmness. Another plan is to have the child upon its back on the table. The manipulation is rendered easier in this position by allowing the head to drop slightly over the end of the table, and placing a small firm pillow under the neck. Where the heart is enfeebled the prone position has much to recommend it, and no doubt the skilled operator will introduce the tube as readily in one position as the other. When the patient is held by the nurse and assistant, the operator should stand directly in front. Most of the text-books say he should be seated, but to stand is better because his eyes are not endangered by the coughing of the patient. As soon as the gag is introduced the child begins to worry; but from this to the end of the operation should be only a few seconds, though it takes much longer to describe it. The introducer with the proper sized tube threaded is at hand. The index finger is inserted and the epiglottis hooked up, then

the tube is passed along the side of the finger until it is upon the epiglottis. Now in all the text-books I have at hand, it is directed to keep the finger in this position, pass the tube on till it engages in the glottis and then push it on down. I believe, however, that I have been taught a better method which simplifies the entrance of the tube. When the tube is introduced as far as the epiglottis it is held firmly against that structure to keep it in position, and the finger is then passed into the oesophagus behind the larynx, or rather just behind the arytenoids which, although small and delicate, can usually be distinguished. This supports the larynx, and the tube being kept in front of the finger passes into the glottis. Then the index finger is raised to the head of the tube, the obturator loosened and the introducer withdrawn, while at the same time the tube is pushed down with the finger until the head is well into the larynx. As soon as it is seen that the obstruction to breathing is overcome, the thread is to be removed, this being done by reinserting the gag and the index finger is passed in till it is upon the head of the tube to keep it in position while the thread is withdrawn. Some European operators leave the thread in position during the whole time that the tube is worn, tying it around the ear and fastening it upon the cheek with adhesive plaster. This is not necessary. It is uncomfortable, causes ulceration of the epiglottis if worn long, incites cough and may be the cause of the tube being pulled out if the patient gets his hands free. On the other hand the thread prevents the loss of the tube into the trachea or by swallowing; and of course it greatly facilitates the removal of the tube.

Extubation—This is regarded as more difficult than intubation when it is done with the extractor. If the thread is left in the tube there is no difficulty, or the tube may be coughed out. This is more likely to occur when an undersigned tube is used. When the extractor is used the directions which have been given for intubation apply with equal force. The epiglottis is raised by the finger, then held by the point of the extractor while the finger is passed on into the oesophagus, the point of the extractor then advanced to the finger when it readily drops into the tube.

Feeding an intubated patient—This is a most important subject. The plan which I consider the best is to pass a catheter through the nose into the oesophagus and by a funnel, pour into the stomach from four to six ounces of milk every four hours. Dr. O'Dwyer advises the method introduced by Dr. Casselberry, of Chicago, in which the

child is inclined head down so that it swallows up-hill, and any fluid that may get into the tube in the act of deglutition gravitates out again. The child is placed across the nurse's lap with the head bent well down and then fed with a spoon or nursing-bottle. It is stated that most patients soon learn to swallow in this position without coughing. In using the catheter the nurse must be instructed to see that it does not roll up in the mouth, nor enter the tube in the larynx.

In looking over the literature of this subject I have noted a number of objections that have been raised to intubation.

1. The tube causes ulceration in the trachea and about the upper opening of the larynx. As pointed out long ago by Dr. O'Dwyer this occurs on account of faulty construction of the tube. So also a tracheotomy tube will produce ulceration in the trachea if it does not fit properly.

2. False membrane cannot be coughed up through the tube. This applies equally to tracheotomy. The tube is likely to be coughed out if it becomes blocked by membrane.

3. The danger of pushing a piece of membrane down before the tube. If this occurs the breathing is not relieved, and as the tube is still held by the thread, it may be instantly removed. The dislodged membrane may then be coughed up, and it sometimes happens that after such an incident it is unnecessary to reintubate.

4. The patient has to breathe air which is vitiated by constantly passing over diseased surfaces. This objection surely has no value. In tracheotomy the air is not moistened, warmed or filtered.

5. The dangers of nursing. These are not to be compared with the dangers of nursing tracheotomy cases.

6. Unsatisfactory results. The results however are, at least, equal to those of tracheotomy.

7. The difficulty of performance. This is no doubt a serious objection where no trained operator is at hand. It is not easy to learn, but with experience it is simple enough.

Let us see now what can be said in favor of the operation.

The consent of parents and friends is easily obtained. If the patient is in Hospital and the friends are not at hand, one would not hesitate to do this operation without waiting for permission. Intubation leaves no scar. No blood is lost, a decided advantage in case of a weakened child. No wound is added to the patient's suffering to become a source of new infection. Anæsthetics are not necessary, nor skilled assistants; nor does the patient require the assiduous and

continuous care of the physician. There is no danger nor shock from the operation. It is much more rapid than tracheotomy. Less irritation results from the tube than from the cannula, because the tube is smaller than the trachea and is so shaped that it presses only on the glottis. Expectoration is easier with the tube than with the cannula, and as the air reaches the lungs, warmed, moistened and filtered, the danger of pneumonia is less. Convalescence is more rapid, for there is no wound to heal. When the tube is removed the child needs no further attention from the physician. Finally intubation is as efficient as tracheotomy in relieving the dyspnoea and it does not prevent tracheotomy which may be done if for any reason intubation fails.

In conclusion I beg to report five cases of intubation which have recently occurred in my practice.

Case 1, patient of Dr. Wood.—Mabel Wade, aet. 16 months, was admitted to the Hospital on Oct. 22nd, in a moribund condition. Cyanosis was extreme. Intubation was done at once and artificial respiration employed. The cyanosis gradually disappeared and the child returned to consciousness. The following day, at 12:30 the tube was coughed out. The dyspnoea returned and advanced. Reintubation was done at 3:30 p.m. Oct. 27th, extubation. Dyspnoea at once began and reintubation was necessary. Oct. 31st, tube coughed out. No dyspnoea. On the first day this child was fed by spoon in the position described, then the catheter and funnel were used, four ounces of milk being given every four hours. The tube was worn nine days. Recovery was uneventful and the child discharged well Nov. 3rd. Antitoxin and calomel fumigations were employed.

Case 2, patient of Drs. Herald and Gibson.—Nellie Woodrow, aet. 7 years, admitted Nov. 1st, at 2:30 p.m., with diphtheritic laryngitis. Antitoxin used at once. Dyspnoea increased till intubation was done at 11:30 p.m. Calomel sublimation was also used in this case and the the catheter for feeding. Nov. 3rd, 4 a.m., tube coughed out. It was not replaced. Tube was therefore worn 30 hours. Discharged well on Nov. 13th.

Case 3, patient of Dr. Herald.—James Savage, aet. 2½, admitted to Hospital at 2 a.m., Nov. 3rd. Severe dyspnoea and cyanosis. Intubation at 2:30 a.m., giving immediate relief. At 9 a.m. the tube was coughed out and was not replaced. Tube worn six and one half hours. Same treatment as previous cases. Discharged well on Nov. 14th.

Case 4, patient of Dr. Wood.—Louie Elliott, aet $3\frac{1}{2}$ years, intubated at home at 8 p.m., Dec. 8th. Relief at once from dyspnoea and cyanosis. The patient was then removed to Hospital and antitoxin injected. Calomel sublimation employed. Fed with catheter. Dec. 10th, 7:39 p.m., extubation. Reintubation at 10 p.m. Dec. 14th, 9 a.m., extubation. Tube worn $5\frac{1}{2}$ days. Discharged well Dec. 19th.

Case 5, patient of Dr. Anglin.—Malcolm Wright, aet 9, admitted to Hospital, Dec. 19th, 10 p.m., with Diphtheritic Laryngitis. Dyspnoea was extreme. Intubation at once. Dec. 21st, 10 a.m., extubation. No return of dyspnoea. Tube worn 36 hours.

Would tracheotomy have done as much for these children? I think not. In the first case the child would have been dead before a tracheotomy could be done. In the third case it is impossible to believe that a tracheotomy tube might be dispensed with after six and a half hours. It has been stated recently that the use of antitoxin reduced the period of intubation, and the second and third cases are in accord with that claim.

J. C. CONNELL.

A CASE OF CHRONIC GASTRITIS

COMPLICATED WITH CARCINOMA UNRECOGNIZED AND UNRECOGNIZABLE
DURING LIFE.

(READ BEFORE THE KINGSTON MEDICAL ASSOCIATION.)

GENTLEMEN :—I wish to bring to your notice this evening a case which, I trust, will not be uninteresting and which to me at least is very instructive. A. M. B., 72 years of age, Canadian by birth, unmarried, has always been a hard worker at manual labour till seven years ago, when by an accident he completely lost his eyesight—has always been temperate in the use of alcoholic drinks—never had any serious illness except the present one. His family history is good. The present trouble began last March. He was recovering from La Grippe when he was attacked with pain in the

stomach and vomiting. This pain and vomiting continued to come on always after eating. When he came under my care at the beginning of last month he presented the following conditions:—Very much emaciated, weighing 104 lbs., anaemic, tongue large and flabby but not furred, bowels constipated, appetite good, complained of tenderness on pressure over the stomach. The taking of any kind of food was immediately followed by pain and the contents of the stomach were vomited. The temperature, pulse and urine were normal. The contents of the stomach were examined by Dr. W. T. Connell, who reported as follows:—

Reaction—Distinctly alkaline from fixed alkali. No free acid. No free hydrochloric acid. Large amount of mucus; Proteids partially digested. Pepsinogen present. Starch digestion not interfered with.

Taking the symptoms of which this patient complained into consideration in connection with the results of the examination of his stomach contents, a diagnosis of chronic gastritis was made and the patient was treated accordingly. Several affections of the stomach suggested themselves as probable causes of the conditions existing in this case. I shall limit myself to the discussion of three, Carcinoma, Ulceration, and Chronic Inflammation of the Stomach.

The age of the patient while pointing, perhaps, to Carcinoma does not exclude either of the other conditions. The pain was not continuous as it usually is in Carcinoma, but was brought on only by the ingestion of food. This is more characteristic of ulcer or gastritis. The appetite remained good. In Carcinoma the appetite is usually diminished or entirely absent. Vomiting occurred only after eating. With Carcinoma vomiting often takes place when the stomach is empty. With either Carcinoma or Ulceration it is usual to have occasional vomiting of blood. In the former case the blood is often decomposed, of a dark colour, and in small quantities; in the latter case the blood may be fresh or decomposed and may be in large quantities. In Gastritis blood, if vomited at all, will only appear as streaks mixed with the other vomita. This patient did not vomit blood. The absence of blood in the vomita would point to gastritis rather than to either of the other conditions. On palpation no tumour could be made out. This would not exclude either of the conditions in the early stage. Judging from what I could learn from the patient and from what I could ascertain by physical examination, I felt that a

satisfactory diagnosis could not be made. The appetite remaining good, the pain and vomiting only after eating, the absence of blood in the vomita and my inability to detect a tumour through his emaciated abdominal walls, certainly inclined me to the opinion that I had to deal with a case of chronic gastritis. At the same time one could not forget that nothing had yet been elicited which could be said to be pathognomonic of either condition, and that many of the symptoms which, accompanying either Carcinoma or Ulceration, are due to a co-existing gastritis.

Would the results of the examination of the stomach contents have afforded any assistance in making a diagnosis. I think so. The contents were alkaline, contained no free hydrochloric acid and the proteids were only partially digested. These conditions excluded ulcer in which the contents of the stomach are acid, free hydrochloric acid is found—often in increased amount—and the proteids are normally or even too rapidly digested. The absence of free hydrochloric acid rather points to Carcinoma though even in this disease, it may be found under certain conditions. It is also usually absent in chronic gastritis. By the examination of the stomach contents we were able in this case to absolutely exclude ulceration. Taking into consideration the general symptoms—as the character of the pain—the time of its occurrence—the vomiting only and immediately after eating, and the substances vomited and especially the absence of blood in the vomita, the absence of any appreciable tumour, taking, I say, all those points into consideration I was more inclined to a diagnosis of chronic gastritis than of carcinoma, and this diagnosis was not at variance with, but was rather confirmed by the evidence furnished by the examination of the stomach contents.

The treatment adopted was based upon the diagnosis of chronic gastritis and consisted of the administration of hydrochloric acid, the ingestion of liquid easily digested food and lavage of the stomach. In order that digestion may be carried on efficiently, hydrochloric acid must be present in the stomach. In this case we had ascertained that it was not present. Pepsinogen was present and this requires hydrochloric acid to convert it into pepsin by the action of which albuminous foods are digested. This part of digestion in this case was being done imperfectly. What the patient was no longer able to do for himself we endeavoured to do for him. We supplied his stomach with hydrochloric acid immediately after he took nourishment, and

thus we hoped to enable him to digest and get the good of his food. His food consisted of gruel and soups and of these after a time he was able to take and to retain as much as a pint at a time without as before being subjected to pain. By the aid of the stomach tube his stomach was washed out regularly every other day by Mr. Letellier, one of my clinical clerks. The object of this was, of course, to clear the gastric mucosa of the large quantities of mucus which the examination showed was present in the stomach and which necessarily so greatly interfered with the process of digestion. Under this treatment the patient improved markedly. His appetite remained good, his bowels acted fairly well. At first even small quantities of liquid nourishment caused him severe pain and vomiting. Under the treatment outlined he was soon able to take and retain without inconvenience as much as a pint at a time. He latterly never vomited except when he took nourishment other than gruel or soup. Such was the history of the case until the evening of the 1st of November when he suddenly became faint, vomited a little blood and passed blood by the bowel. He rapidly sank and died on the morning of the 2nd.

On the afternoon of the same day, Dr. W. T. Connell performed a *post mortem* examination with the following results so far as relates to the conditions leading to the immediate cause of death:—

“Stomach, much distended, over double its usual size, pushing up against the heart and downwards to within $\frac{3}{4}$ in. of umbilicus, walls thin, fibrous. A condition of chronic sclerotic gastritis. At the oesophageal orifice was present, a columnar celled carcinoma forming a ring—like infiltration of about $\frac{1}{2}$ inch of lower end of oesophagus, but not constricting the orifice to any noticeable extent. The growth extended down on the posterior surface of the cardiac end about $1\frac{1}{2}$ in. from the orifice and anteriorly about $\frac{1}{2}$ in. A small bean sized polypoid mass attached by broad pedicle hangs just at oesophageal orifice. The bleeding vessel was not found but branches of both gastric and splenic arteries passed into the growth. The growth extended to the upper surface of the pancreas, reaching the splenic arteries and veins, but did not infiltrate these nor the pancreatic gland substance. On the surface of the pancreas was found an enlarged gland measuring $\frac{3}{4}$ in. by $\frac{1}{2}$ in. infiltrated by a firm new growth.

Liver—Gall bladder partially filled with Bile-duct's patent—Liver, small, pale and contained about six small nodules of new growth on convex surface, none larger than $\frac{1}{4}$ in. square.

Oesophagus shows walls somewhat thickened with well marked rugae for 2 in. above the carcinomatous stricture. Above the bifurcation of the trachea, the oesophagus is larger and no rugae.

SUMMARY—Chronic sclerotic gastritis with dilatation of the stomach (primary).

Columnar celled carcinoma at oesophageal end of stomach with ulceration of blood vessel (actual one not determined) and death by hæmorrhage into the stomach, several secondary nodules in the liver."

Such, gentlemen, is the history of this case. From this case, it seems to me, we may learn several important lessons. In the first place in chronic stomach affections we are not always able to make an exact diagnosis of the existing conditions from the symptoms detailed by the patient or by our physical examination. Here everything pointed to a chronic gastritis—a condition actually existing—and to the exclusion of carcinoma which the *post mortem* revealed. In other words the evidence of an existing carcinoma was nil and entirely masked by the symptoms of gastritis. The pathological examination of the stomach contents, usually such a valuable aid to a correct diagnosis, in this case was indicative of gastritis and certainly did not point to carcinoma. The real condition was only ascertainable after death and even the evidence furnished by the *post mortem* shows that the symptoms of which the patient complained were entirely referable to the gastritis and not to the carcinoma. The carcinoma was situated at the cardiac end of stomach and did not constrict the orifice materially. The dilation of the stomach therefore was not due to the carcinoma nor was this the cause of the impairment in the digestive processes of which the patient complained and which were indicated by the examination of the stomach contents. The oesophagus was not materially constricted and so food was readily swallowed and the act of vomiting was easily performed. The examination of the stomach contents revealed the gastritis and indicated the mode of treatment likely to be of service. Sooner or later there must have been a fatal termination and this end was hastened by the hæmorrhage. Had the patient lived we would undoubtedly have been able to detect a tumour—we would have had hæmorrhage from the stomach and the evidences of the carcinomatous complication. By this case we are warned that it is not always possible to detect in the early stage a carcinomatous growth, and that in patients who have passed the prime of life we should be extremely suspicious of this condition even when all the evidence points to its exclusion.

J. HERALD.

SOME OF THE RELATIONS OF PATHOLOGY TO MODERN MEDICINE.

INAUGURAL ADDRESS, MEDICAL FACULTY, QUEEN'S UNIVERSITY,
SESSION, 1896-7.

AS you are all aware, there have been vast advances made in the knowledge of medicine, within the last twenty years. Now the advances have been due to the placing of Medicine upon a sound scientific basis as distinguished from the previous standpoint of mere hypothesis and empiricism.

As Pathology is widely defined and is the scientific study of Disease, it will be at once apparent that its place now is widely different to its position 20 years ago. In all its great branches of 1st Etiology or disease causation including here the new science of Bacteriology, 2nd the study of the course and processes of disease which include the Anatomy, Histology and Chemistry of the disease, and 3rd, the study of Comparative and Experimental Pathology—in all these branches I say—great and constant progress has been made. This progress has changed Pathology from a minor to the foremost branch of Medical Science. For it is only by a correct knowledge of Pathology that we can scientifically apply the principles tending to the prevention and cure of disease. For if we know what is the causal agent of a disease, and what is the life history of such agent, we can take proper means of prevention; if we know the seats of attack and the nature of the tissue re-action in such seats when attacked by disease agents, then we can (in so far as our Therapeutics will allow) scientifically apply drugs or surgical measures to aid the tissues or counteract the disease products. Without then a correct Pathology we can have no Preventive Medicine; without a sound Pathology, no proper Therapeutics. Having thus shortly stated the general bearings of Pathology in the study and advancement of medicine, I must say that medical progress has been in chief part the outcome of experimental work. This experimental work has been carried on in many fields, but it is chiefly to work in Comparative Pathology and Physiology that we owe our pre-

sent day knowledge of Scientific Medicine. Much, yes very much still remains upon which we have no proper light, yet I think modern workers may well be proud of the results already achieved, and may hopefully look forward to the future for futher and yet more important achievements.

Let us now, trace shortly some part of the progress of Experimental Medicine and its application to the prevention and cure of disease.

The man, to whom more than all others, we owe experimental medicine is the late Louis Pasteur. It is to him we owe chiefly the new science of Bacteriology, for though Bacteria had been known to exist since Leuwenhock first detected them in 1675, with his crude lenses, and though many men had since studied and even clãssified them, yet it was Pasteur who by his studies into fermentation, first proved that micro-organisms took the active part in such processes. Pasteur, by the publication in 1860-62 of his researches into the various fermentations of wines, beers, and vinegars, and particularly into butyric and other putrefactive fermentations, and his proof that such fermentative changes were due to the growth and action of minute microscopic plants, micro-organisms or "Bacteria", first drew his own thoughts and those of other scientific men to the possibility of the "germ" causation of disease. There might then be something in the vague old fermentative theory of disease, which in one form or other had been cropping up for centuries. For there can be traced a close comparative relationship between fermentation and disease, particularly epidemic disease.

If then as Pasteur had proved, such fermentations as the acetic, lactic and butyric were due to micro-organisms, why could such not be the cause of epidemic disease?

Davaine in 1850, while studying the blood of sheep dead of Splenic Fever or Anthrax, found rod-shaped Bacteria *i.e.* Bacilli constantly present, but he did not recognize their relationship to the disease till after Pasteur's publications. Then he, in common with other observers again took up the work and shewed the causal relationship of the rod-shaped organism to the disease. Later this organism was found in Malignant Pustule, the form in which Anthrax commonly attacks man. Anthrax was thus the first disease of man and animals, whose bacterial origin was shown. Following on this discovery of the microbic origin of Anthrax came the discovery of Bacteria in many other diseases and the proof of their causal relationship to certain diseases. As examples in man we may instance as now proved, the bacterial

origin of Relapsing Fever, Leprosy, Tuberculosis, Diphtheria, Pneumonia, Typhoid Fever, Cholera, etc. To Robert Koch is due much of the credit for the discovery and proof of the causal relationship of special Bacteria for each of those diseases and for the firm establishment on a sound basis of fact, of the " Germ Theory of Disease. "

One of the first and most beneficent outcomes of Pasteur's studies on Fermentation, was the influence it has since had upon operations and wound treatment. Mr. Lister (now Sir Joseph), then Professor of Clinical Surgery at Edinburgh, on the publication of these researches was led to believe, what he and others have since most conclusively proven, viz : that the processes of putrefaction and pus formation in wounds and fractures, and the various wound infections (Erysipelas, Phlegmon and Spreading Gangrene, Wound Diphtheria, Septicaemia and Pyaemia) so terribly common in these days, were due to the presence, growth and action of micro-organisms. He, therefore was led to use strong germicides, so as to destroy any microbic life already in the wound, and to prevent its further entrance. His methods met with instant and wonderful success. The mortality rate following operation was immediately greatly lowered, Erysipelas and Gangrene practically disappeared as sequelae of operations ; operations before rarely successful could now be readily performed. Indeed it is not too much to say, that his process revolutionized surgery and ranks with anaesthesia as one of the greatest boons of this century. Lister's actual methods are not now in use but his principle, viz :—The necessity for the freedom of wounds from Bacterial life, is yet the foundation stone of surgical success.

But to pass on to some of the other applications of the experimental work which so soon sprang up after Pasteur's first work. Attempts were made to obtain pure growths of the various Bacteria outside the body, as soon as their causal relationship to a disease was suspected. These attempts have proved successful for most micro-organisms but not for all. Pasteur while examining cultures of the Bacillus of Fowl Cholera found that, under certain conditions (age, temperature, etc.) these Bacilli lost much of their virulence *i.e.* more of the cultures were now required to produce fatal results than would be required of fresh growths. Furthermore on inoculating fowls with an ordinary dose (in amount equal to a fatal dose of virulent culture) of these weakened cultures that the fowl recovered and was then refractory to large doses of highly virulent cultures. Pasteur recognized the great importance of this discovery, and immediately began experiments on the Anthrax Bacillus. He

was enabled by special conditions of culture to obtain weakened Anthrax growths and found that on inoculating sheep with this weakened culture, they were more or less immune against the disease. After further experimentation, he employed cultures of two strengths, which have recently obtained the names of Vaccines, a weaker and a stronger. He used these Vaccines by inoculating the sheep with the weaker culture first, and after the re-action had passed off, using the stronger or virulent culture. By the use of his methods by special operators, the European herdsmen have practically stamped out Anthrax which once scourged in severe epidemics, their richest grazing districts. This principle of using weakened virus against Anthrax is in reality the same principle which Jenner first employed a century ago against Smallpox, and as such it was recognized by Pasteur and his followers. For the vaccine material which we use for protection against the Smallpox, is a culture in lymph of a weakened and modified Smallpox, namely, Cowpox (I would be more correct in stating that Smallpox is a highly virulent form of Cowpox).

Other Experimentalists soon applied these principles of vaccination to other diseases, chiefly those of animals. As instances I may mention that vaccination has been fairly successfully applied to protect against Quarter-evil, Swine Erysipelas, Fowl Cholera, and Texas Fever. Lately one of Pasteur's pupils, Haffkine, has applied these vaccination principles against that scourge of India and Arabia, the Asiatic Cholera. He is now working in India, the home of the Cholera. He employs two vaccines a weakened and a virulent culture of the *Vibrio* of Cholera—the stronger culture being inoculated 5 days or later after the first one. As to the success of this method I can but refer you for details to the reports for 1894-5 and 1895-6, of Dr. Simpson, the medical officer for Calcutta. Therein it is shown that the non-inoculated under the same sanitary and food conditions are more than six times more liable to attack and five times more liable to die when attacked than are the inoculated. As these reports cover over a thousand cases of Cholera, they afford a truly convincing argument for the efficacy of Haffkines' method for the production of immunity to the disease.

To proceed however, Micro-organisms are found to act chiefly through the formation of chemical substances and not by their mere mechanical action. Outside of the body, on suitable media, it was found that certain Bacteria would form certain chemical bodies, usually toxic in nature or as it is now common to term them Toxines. Furthermore it has been shown (for certain Bacteria) that these toxic

bodies so produced in culture, were capable of exciting like lesions as would inoculations of the Bacterium itself, but of course these toxic principles are not capable of multiplication. Still further it was shown that by the proper use of the Toxines of certain Bacteria, animals could be rendered refractory to inoculations of virulent cultures of the organism itself, or in other words by the proper use of the Toxines immunity against a disease could be obtained. Let us see how this principle has been used in medicine. Even before the working out of this principle, Pasteur had in reality applied it to the preventive treatment of Hydrophobia (though in this treatment there is more than Toxines used, there being undoubtedly a Vaccine in addition). From the symptoms of Hydrophobia it had long been recognized that whatever the cause the seat of lesion was the nervous system, Pasteur and his co-workers after long experimentation, found that the morbid material was chiefly localized in the brain and spinal cord. Hence he removed the cord of dogs dying of Hydrophobia and after preparation in certain ways so as to obtain Toxines of graded intensity, used by repeated injection, an emulsion of these cords, the strength increasing day by day, in cases suffering from bites of rabid animals. Pasteur's idea was to produce immunity to the disease before the poisonous germ introduced by the bite, would have time to multiply and produce its lesions. The inoculations would be, as you can readily see worse than useless if the disease had already shewn itself, for then you would be but adding fuel to the flame, Toxines to Toxines. As a preventive measure the results are too well known to need comment. Suffice it to say, that when this treatment is used early the danger is reduced to almost nil.

It is only in cases of Hydrophobia as yet that the application of the Toxines, has proved a success in the prevention and treatment of disease. You will all remember however, how Robert Koch a few years ago (1890) brought out his Tuberculin, the Toxine of the Tubercle Bacillus as a cure for Tuberculosis. It proved a sad failure as a means of cure, but it has proven highly valuable as a means of diagnosis of tubercular diseases of cattle. We can say about the same of Mallein, the Toxine of the Bacillus of Glanders which is now employed as a means of diagnosis in suspected Glanders or Farcy in horses.

But the Toxines of Micro-organisms have proven themselves of importance in other ways. Behring during the course of some experiments on the Toxines of Tetanus found that in animals, that had been immunized against the disease by the use of the Toxines, or in ani-

imals that had recovered from the disease itself, the blood of such animals when inoculated into other animals could confer on the animals so inoculated, the immunity to Tetanus which the first animals enjoyed. This property of the blood, or rather blood serum, is the so called Antitoxic property. The blood serum of such an immunized animal is or rather contains the Antitoxin. Now Antitoxines have been prepared against a number of diseases by immunizing animals to the disease and collecting their blood serum. Chief among the diseases against which Antitoxines have been prepared stands Diphtheria. The use of Antitoxin in this disease has long since passed the experimental stage and there can be no doubt as to the thorough efficacy of the serum when it is used early and in proper amounts. The serum has proven also highly valuable as a means of immunizing those who have been exposed to the disease, a small amount of the Antitoxic serum sufficing for this purpose. Amongst other diseases against which I may mention that Antitoxic serums have been prepared are Tetanus, and Streptococcus infection *e.g.* most Puerperal Septicæmias. In these two diseases very variable results have been recorded. Antitoxic serums prepared for Typhoid Fever-Tuberculosis and Syphilis have proven of no use. Within this past two years, Calmette of Paris and Fraser of Edinburgh have prepared an Antitoxic serum against the venom of the Cobra and allied species of snake. From some late cases recorded injections of the serum shortly following the bite, have been followed by excellent results.

The subjects of Vaccines, Toxines and Antitoxines, are ones upon which one could readily expend much more time. They have had but scanty justice in this rapid survey, but already I fear I have been over long, so that as I pass on I will simply say that the further progress of Medicine must be in great part made by further studies into the nature, causes and production of immunity against Disease.

With the better knowledge of the causation and transmission of Infective Diseases, or in fact of the life history of the various Pathogenic Bacteria, has come the adoption of wide sanitary measures to check their spread. How efficacious these measures have proved can be readily learned by the study of the vital statistics of any large city or country, for the past 50 years. We find Typhus practically stamped out, Smallpox under control, Cholera no longer feared, Consumption slowly on the decrease. The ordinary Exanthems, such as Measles and Scarlet Fever are becoming more restricted in their range and the old idea, that a child to grow up healthy should

“run the gauntlet” of these diseases is being gradually eradicated from the minds of the people.

Within the past few weeks it has been discovered that by Bacteriological methods we seem likely to be able to make a fairly early and satisfactory diagnosis of Typhoid Fever distinguishing it readily from the continued and low fevers of Malarial or of uncertain origin, from Septic fevers and from the so called Typhoid states. This method was discovered by Pfeiffer of Berlin, elaborated for Typhoid by Widal of Paris, and further modified as to be of easy application by Dr. Wyatt Johnston of Montreal. It consists in the addition of a watery extract of a drop or two of dried blood from the patient to a few drops of a bouillon culture of the Typhoid Bacillus. If the blood be from a Typhoid patient the Bacilli become clumped together in small groups, lose their motility and are precipitated to the bottom of the tube. My experience of this method is yet too small for me to speak with any authority as to its efficacy (Dec. 15th. I can now say with a fuller experience that the method is very certain after the first five or six days of the fever. Reports from all Laboratories that I have heard from are very favourable as to its efficacy in the diagnosis of the fever after the sixth day. This is of course, a little late but yet it is as early as a positive diagnosis can be made by clinical evidence).

Though the list of triumphs of the scientific investigation of disease, is by no means, yet exhausted, I have time to speak of but one more. I refer to the use of preparations of various glandular organs of the body (of animals) in the treatment of Disease. It had long been known that certain diseases were induced, or rather were accompanied by certain lesions in various glands *e.g.* in Myxoedema and Cretinism there were atrophic lesions of the Thyroid gland; in Addison's Disease we have changes in the Suprarenals. But it was not till the functions of these glands were more completely worked out by such men as Horsley, Oliver, Schafer and others, and it was determined that all the “ductless” glands and even many of the glands with ducts possessed an “internal secretion” thrown into the blood through the lymph stream or in some cases directly, this secretion being necessary to the body—it was not till then—that the true import of these lesions became manifest. Now we know that Myxoedema or its congenital form Cretinism is due to lack of the proper secretion of the Thyroid gland. Hence we supply in such cases various preparations of sheep's Thyroid to take the place of the destroyed secretion. The results in these diseases have been almost wonderful. In Addison's Disease, Suprarenal Extracts have been used, but the

results are not so favorable. Again in Diabetes we find in many cases lesions in the pancreas leading to suppression of the glandular elements in greater or lesser part, so that it is suggested and in a few cases Pancreatic preparations have already been employed either per rectum or hypodermically in its treatment. The use of these glandular preparations other than in Myxoedema is yet in its infancy, so that we can not yet judge of their permanent value.

Now while work along the lines of Experimental and Comparative Pathology has caused our knowledge of Medicine and Surgery to advance by leaps and bounds, we cannot afford to lose sight of the benefits, in fact the necessity for a careful and minute study of the gross and microscopic anatomical changes induced in the tissues by the agents of disease, and the Pathological Chemistry of such lesions as well. The study of Morbid Anatomy and Histology and of Pathological Chemistry form the ground or basis work, not only for the development of work along experimental lines, but for the every day work of the practitioner. As experimental work must be for the few, general practice for the many, it is to Morbid Anatomy and Histology (with their underlying general Pathological considerations) that most of the time is devoted in our Pathological class rooms. Like all other subjects Morbid Anatomy is taught best practically, and the place for its study is as much in the *post mortem* room as in the Laboratory and class room. We have fair opportunities here for its study in the General Hospital, the Penitentiary and the Rockwood Asylum. Heretofore one great trouble has been the difficulty of obtaining consent for such examinations. There is no doubt that more could be done in the future than has been done in the past, if physicians would but endeavor to check the erroneous ideas so prevalent among laymen as to the "carving piecemeal of the dead" and such like. I think we came in this center under the American students general condemnation of English medical schools. His story is related somewhat in this manner (with apologies to Prof. Adami). "No sir" said he "you do not understand Scientific Medicine in England. Look at Berlin and compare; there every physician and surgeon thinks he has failed in his duty if he fails to confirm his diagnosis by a *post mortem*." I do not desire, and I am sure the patients of our public institutions desire less, that our worthy physicians and surgeons should be quite so scientific as this. Yet more could be readily done by the physician than has been performed in the past, in the way of obtaining permission for *post mortem* work, and in this present session we hope to benefit by their action therein.

IMMORALITY IN CANADA.

“WE have been distressed and shocked beyond measure to learn that large and increasing numbers of women in Canada are giving themselves up to the vilest form of immoral practices. The report that comes to us, indeed, is such that, were it credible, we should be led to despair of the future of the country, for, compared to Canada, or at least Toronto, Sodom and Gomorrah were as pure as Salvation Army shelters. It appears that cycling, which with us is adding so much to the health and the beauty and the charm of our women, is in Canada, or at least in Toronto, merely a means of gratifying unholy and bestial desire. We hesitate to believe such a report; but we have it on the authority of the editor of the *Dominion Medical Monthly*, and he is on the spot and speaks as one with absolute knowledge of the facts.

“After referring to the advantages claimed for the bicycle, which he refutes by the statement that the average woman gets about all the exercise she wants in looking after her home, our esteemed contemporary says that ‘the consensus of opinion is increasing overwhelmingly day by day that bicycle riding produces in the female a distinct orgasm, . . . and even if an orgasm is not produced, the continued erethism is decidedly more injurious and tends to the production of nervous diseases and the general breaking down of the system. The only contention that can be made is that the orgasm or erethism is not produced. This we know to be absolutely untrue.’ The writer adds more to the same kind, and pictures the mothers, wives and daughters of his neighbors as scorching through the country, stooping low over the handle bars, and ‘subjected to continued erethism as well as an occasional orgasm.’

“There is but one of two conclusions to be drawn from this statement. Either the wheelwomen of Toronto are the vilest of their sex, or they are the victims of a contemptible slander. Unless our contemporary has a mass of facts sufficient to establish beyond doubt the sweeping generalization contained in the article from which we have quoted, he has smirched the fair name of his countrywomen in a reckless fashion that calls for the strongest condemnation. The question of the healthfulness of cycling, for men as well as for women,

is one that still admits of discussion ; but the man who can assert, or even suggest, that the thousands, perhaps millions, of women throughout the world who ride the wheel are giving themselves over to self-abuse, puts himself beyond the reach of argument."

We have copied the above from the *New York Medical Record*, and with the editor of that Journal, we are astonished and pained to find that anyone holding the position of a medical practitioner would have so slandered the fair name of our Canadian women, of whom it may undoubtedly truly be said that the purity of their lives compares favourable with those of the women of any other country. If the writer of the article in the *Domnion Medical Monthly*, has evidence to substantiate the grave charges he has made against the reputation of the lady cyclists of Toronto, then it is his duty at once to produce that evidence so that the fathers and mothers and husbands of those who are using the wheel for their physical ruin and moral corruption, may exercise their influence and put a stop to these alleged pernicious practices. That wheeling is not without injurious effects upon the health of those who indulge in the pleasure to excess, we are quite prepared to admit; that it has the pernicious effects credited to it by the *Domnion Monthly*, we do not believe, and have as yet, neither seen nor read anything which would convince us of the truth of the statements made in the article referred to. In the interests of truth and morality, let us have the evidence if it can be produced; in the interests of the women cyclists of Toronto, if the evidence cannot be furnished, let the writer of the above article retract his statements.

A CASE OF PROCIDENTIA UTERI

OCCURRING IN THE LAST MONTHS OF PREGNANCY AND COMPLICATING
LABOR AT FULL TERM.

PROLAPSE of the uterus in the ordinary sense of the term comes under the observation of most general practitioners, but a case at full term of pregnancy is, I think, of rare occurrence. I have looked over a considerable number of works on obstetrics but have been unable to find any literature on the subject. Barnes says: "I

have been several times called to see what was supposed to be a prolapse of the uterus but was in reality an elongated cervix with an hypertrophied condition of the os." A careful perusal of the following case will show it to be one of procidentia, keeping in mind the relation of the parts and the behavior of the os at the time of labor.

On September 15th I was called to see Mrs. C., aged 35, who said she was seven months pregnant and complained of a mass protruding from the vulva. She had been married several years but had only one child, aged four years. Nothing could be obtained from her concerning her last and only labor, except that she was under chloroform for about five hours, and the forceps employed. She was kept in bed for three weeks, but did not understand why, as her general health was so good. About one year after this she first felt a weight in the pelvis as if something were pushing down, with dragging pains about the sacrum and inguinal regions. In a few months these symptoms passed off and she imagined she was all right, but in a short time they returned and for over two years she was thus troubled at different times, depending as she thought upon the amount and kind of work she performed.

Her menses had been regular every three weeks until last February when they ceased. A few weeks after this she was quite free from her trouble, but moving from the farm to the town the last of April, during which time she did a good deal of lifting and carrying, her old trouble returned and kept gradually getting worse, until she noticed a mass protruding from the vulva. At first she said the mass receded when she laid down and returned as soon as she assumed the erect posture, but after a few weeks it remained protruded no matter what position she occupied. She had much pain in the pelvis, of a dragging character, difficult urination but defecation did not cause much trouble. She complained of some nervousness and despondency, otherwise her health was fairly good.

Upon examination I found the abdomen enlarged, and the tumor central. The outline of the uterus was readily mapped out, its upper border being below the umbilicus. The os protruded from the vulva about two inches, soft, livid in appearance and in circumference, about that of an ordinary tea-cup. The cervix was of the same size and distended the vulva. There was no vagina to examine as it was filled. The anterior fornix was completely obliterated and the posterior one so everted that the walls of the vagina and uterus were one and the same. By gently pushing the fingers between the mass and the vulva a hard tumor was felt in the inferior strait. This could be

titled upwards and when the left hand was applied to the abdomen, foetal movements could be distinctly felt. The condition of the breasts and other signs pointed clearly to pregnancy.

Having never seen or heard of such a case I was somewhat puzzled as to the best mode of treatment. After ordering her to bed I placed her on her side with hips slightly elevated and knees well drawn up with the hope that the womb and its contents would rise above the superior strait and remain there. With slight pressure the mass receded, and I gave an astringent injection, used tampons, applied a T bandage and left her feeling comparatively comfortable, with strict orders not to change her position. On visiting her next day and removing the tampons I found the parts much as I had left them with the tumor higher in the abdomen. After a few days the tampons were discarded and in ten days she felt so well that she left her bed, but soon again to be visited by her former symptoms. She then sent for Dr. Coughlin of Hastings, who treated her as I had with the exception of the tampons. About one month after my first visit (eighth month of pregnancy) Dr. Coughlin and I visited her together and found her in a semi-recumbent posture with the mass protruding as before but intensely inflamed. Dr. Coughlin suggested a rubber pessary but she could not wear it. During the next month the mass protruded as soon as the appliances were removed.

On November 15th the mass receded within the vulva and remained in that position until the 19th when it again protruded. In a few hours after the protrusion the membranes broke and the water escaped. I was immediately summoned and upon examination found the cord and a foot presenting about an inch beyond the os which was now out of the vulva, and so dilated that I could easily replace the cord with my hand. There was no elongation of the cervix and the lower part of the womb was in the vagina. I pushed the os and presenting parts within the vulva, told the husband of the seriousness of the case and Dr. Bogart was called in consultation. We decided whatever was to be done had to be done at once as the cord and foot were gradually advancing. We tried different means of replacing the cord such as the postural position, etc., but to no purpose as the cord persistently came down. We then placed the cord behind the pubes to save the child being asphyxiated. As there were no contractions of the uterus we waited a while, the cord ceased pulsating and the foot and uterus kept coming lower, the os being now out of the vulva. What was causing the descent, I do not know unless it was the laxness of the uterus and the roomy pelvis.

Chloroform was then administered. I made gentle traction on the foot at the same time pushing the os up, and peeling it backwards as it were, over the child and finally delivered the patient of a fully matured child. The uterus now receded and the os reached the inferior strait. By adopting Crede's method and making traction on the cord the placenta came away. There was very little hæmorrhage. This was about five hours after the membranes broke. I kneaded the uterus for some time but there were no contractions. I gave an antiseptic douché and bandage^d very lightly, and left our patient resting very comfortably. About twenty hours after she had a few slight after pains which gradually became more severe and lasted for three days. These were the only pains she had and she made an uninterrupted recovery. I saw her a few nights previous to writing, Dec. 9th, and found the uterus well contracted the os in the middle of the inferior strait, firm, and conical in shape with a cervix about an inch and a quarter in length.

Campbellford, Ont.

A. HAIG.

CLINICAL NOTES IN SURGICAL PRACTICE.

RECURRENT APPENDICITIS.

THERE is one form of appendicitis, viz: the *recurrent*, which, while offering no obstacles to the attending physician in making a diagnosis or in estimating the dangers consequent upon delay, yet from the comparative mildness of the symptoms—from the patient's stand point—permits him to pass from one attack to another without heeding the warning of his danger until the final attack of septic peritonitis makes operative interference too late. The following case fully illustrates the gravity of such conditions:

Mr. H., aged 45 had his first attack in February last, characterized by the usual symptoms of a mild form of appendicitis, and after a few days was up and about again. From that date he had eight attacks all comparatively mild with one or two exceptions. His physician on each occasion warned him of his danger and endeavoured to persuade him to submit to operation, but without avail until the attacks became so frequent as to make him think more

seriously of his condition. On arrival at the General Hospital and after the usual preparations, assisted by Dr. Ward of Napanee, an incision two and one half inches long was made through the superficial structures commencing at a point about an inch above a line drawn from the umbilicus to the anterior spinous process and passing in an oblique direction so as to cut that line through the middle at right angles. The fibres of the aponeurosis of the external oblique were separated by the handle of the scalpel and held apart by retractors, after which the fibres of the internal oblique and transversalis were similarly separated and held apart. The peritoneum was then picked up and divided. The appendix at once presented in the incision and after separating it from a few slight attachments to the omentum stood out quite rigid and corresponding in length and size to that of the index finger. It was devoid of mesentery, somewhat constricted at its proximal end, dark livid in color and rapidly approaching a state of gangrene. Locally the small intestines showed some signs of old inflammatory action, but there were no adhesions. The field of operation having been surrounded with iodoform gauze, the appendix was removed and from the divided end there escaped about half a teaspoonful of foul swelling pus. After probing the stump it was ligated and the thermo—cantery applied. The wound was closed by the introduction of *through and through* silk worm sutures, but were not tied until the fibres of the internal oblique and transversalis were first approximated by continuous catgut sutures, and after that the aponeurosis of the external oblique by the same kind of suture. The advantage of this method of opening and closing the peritoneal cavity is obvious, in that the grid-iron like arrangement of the muscular fibres to which the abdominal wall so largely owes its strength is restored almost as completely as before operation.

In this case then we have a man in fairly good health working in the intervals of mild attacks of iliac pain, with an appendix not walled off from the general peritoneal cavity by any adhesions, almost in a state of gangrene, and which undoubtedly would have been gangrenous in a very short time but for the timely and persistent advice of his medical attendant.

HÆMORRHOIDS.

In looking over the ordinary line of text-books on Surgery one finds the treatment of this frequent and troublesome condition divided into *palliative* and *radical*, and on turning to a further description of

the latter one finds three operations described, the clamp and cautery, ligature and Whitehead's method.

For the pedunculated form the clamp and cautery or ligature do well, but when the tumors are sessile and possibly surround much of the lower ring of the rectum, the mucous surfaces are apt to draw apart and permit of hæmorrhage or sepsis. Where the ligature is used and the mucous membrane has been incised to permit the application of it, a raw surface is inevitable, often followed by ulceration, pain and rectal tenesmus with the possibility of sepsis and rectal abscesses.

Whitehead's is a formidable operation and one which from the extensive dissection necessary and the dread of hæmorrhage cannot be safely undertaken outside of a hospital.

Lately I have adopted a different method which I believe to be more along the line of modern surgery than the clamp or ligature and while radical is free from the objections to Whitehead's.

After the sphincter has been thoroughly dilated a sponge with a ligature attached is inserted above the field of operation which permits of the rectum being drawn down by dragging on the ligature. The lower tumor, if more than one is present, is seized by a vulsellum and the mass pulled down. Commencing at one end a superior and inferior flap is started and dissected up and down respectively, that portion of the base of the hæmorrhoidal mass exposed is carefully dissected out, any bleeding points being secured by clamp forceps. A continuous catgut suture is introduced through the margins of the two flaps, by which they are drawn together. When there is a bleeding point the suture is passed deep enough to include it in its grasp. The flaps are further raised in the direction of the tumor another portion of its base enucleated and the flaps brought together as before. This is continued until the whole tumor has been eradicated and the flaps brought together by the same continuous catgut suture. The remaining tumors, if any, are treated in the same way. This method of operating commends itself for the rapidity with which it can be done, for the small amount of hæmorrhage, for the absence of a constricting ligature and a raw absorbing surface; for its freedom from pain and rectal tenesmus and for the smooth aseptic wound it leaves.

The sponge is afterwards withdrawn and a rubber tube three inches long wound at its centre with iodoform gauze is introduced partly into the rectum so that the gauze is in contact with the wound, a safety pin being passed through the outer end. This manner of

dressing serves many useful purposes. It is aseptic, arrests the tendency to hæmorrhage by pressure, allows the free passage of flatus, often a most distressing condition, and acts as a tell-tale by allowing blood to escape should hæmorrhage occur.

On the third evening following operation a cathartic is given and the following morning three ounces of warm sterilized oil are injected through the tube and the tube closed. Two hours after a warm water enema is given and the whole mass, tube and all, comes readily away. After the bowels have been emptied the rectum is washed out with boracic solution and an iodoform suppository inserted.

CHOLELITHIASIS AND THEIR REMOVAL BY CHOLECYSTOTOMY.

The surgery of the gall bladder and bile-ducts now occupies a prominent place in medical literature and takes rank with the other divisions of abdominal and pelvic work.

The development of gall-stones seems to depend upon crystallization of the excess of cholesterin owing to stagnation and a morbid state of the epithelium. The size of calculi found varies from the size of bird-shot to ones large enough to fill the gall bladder. The great prevalence of cholelithiasis is not fully appreciated; statistics vary, but it may safely be said that after middle life one individual in every ten is affected, and the condition is more common in women than in men.

When gall stones have once formed the symptoms produced will vary much according to their size; when small they readily pass through the bile ducts and when very large remain in the gall bladder, in both of which cases no symptoms characteristic of the condition may be present, but the medium sized ones, those capable of entering and distending the cystic duct when once started on their journey to the duodenum set up a train of symptoms, unmistakable Jaundice, a condition often looked upon with little anxiety should always in those in middle or advanced life be looked upon with suspicion, for while it is the almost uniform accompaniment of catarrhal duodenitis it is also the accompaniment of the gravest obstruction of the common duct, either from gall-stones, cancer or suppurative cholangitis.

The fact that gall stones may set up a train of symptoms other than those referable to the bile ducts has not been sufficiently pointed out in medical literature. Many of the obscure forms of gastrointestinal and pelvic disturbances with their protean symptoms might

through the action of the solar plexus and sympathetic system be safely traced to the presence of gall stones and not to pelvic disease.

I remember the case of a lady who for a long time had been failing in health with the usual gastro-intestinal and pelvic symptoms and who was operated upon twice for some form of pelvic disease. After death, which occurred shortly after the second operation, the gall bladder, distended with gall-stones, was found to be the seat of the disease.

In another case which I had the good fortune to see, through the kindness of Dr. J. B. Murphy of Chicago, the prominent symptoms were nausea, vomiting and progressive ill health. This case had been diagnosed by a previous surgeon as chronic gas-tritis, but Dr. Murphy, believing the gall bladder to be the offending organ operated and removed from it over one hundred gall-stones.

A third case is one that came under my own observation through the kindness of Dr. Northmore of Bath. In this one however the diagnosis had already been made and consultation was requested to confirm the opinion.

Mrs.—— aged 35, mother of two children, the youngest four years old, had been, since her last confinement, failing in health, progressive anæmia and loss of body weight until at the time of observation she only weighed about eighty-five pounds. There were gastro-intestinal disturbances, some nausea but no vomiting except on one occasion, no localized pain or tenderness. Bowels constipated, normal in color, urine normal, temperature 99° F. in the morning $100\frac{1}{2}^{\circ}$ F. in the evening, pulse ranged from 120 to 130. Examination of the pelvis revealed an enlarged sensitive uterus and tenderness in the right iliac region. About two weeks or more before I saw her a small tumor was felt at the outer boundary of the right lumbar region below the liver, smooth, elongated, moveable and somewhat resembling a dislocated kidney. The tumor could be made to occupy the normal position of the gall bladder, but could not be moved in the direction of the normal position of the kidney. At the Kingston General Hospital after the usual preparations, I made a vertical incision commencing at the end of the tenth costal cartilage. The gall bladder, previously pushed into that situation presented in the wound as a tense and almost pearly white tumor and after being drawn through the incision and the field of operation carefully secured by iodoform gauze was aspirated and six ounces of clear mucus removed. The wall of the gall bladder was next in-

cised, the index finger introduced and with the aid of a blunt curette four stones were removed. The first two were about the usual size, weighing fifteen grains each, the third was large about the size of a horse chestnut, had a single facet at each end and weighed one hundred grains. The fourth was the same size and shape but had but one facet the other end being conical where it had plugged the neck of the gall bladder. It weighed one hundred and ten grains.

To make certain that the bile passages were pervious a long flexible probe was passed into the ducts and afterwards by means of a glass tube so constructed at the end as to fit the entrance to the cystic duct two ounces of water were injected through the bile passages while the index finger was in contact with the duodenum where the water could be readily felt distending that part of the intestinal canal. What is known as *the ideal operation* was then proceeded with, the gall bladder was completely closed by a double row of Lembert sutures and returned to the abdominal cavity, care being taken to safely and closely anchor it to the abdominal incision by means of four catgut sutures. *Through and through* silk worm sutures were then introduced and tied, with the exception of the two which corresponded with the incision in the gall bladder, the small opening thus left being carefully packed with iodoform gauze. On the second day, there being no leakage the gauze was withdrawn and the sutures tied.

Her recovery was uneventful and she returned to her home much improved in health and strength after five weeks, and in a letter received lately she says she is quite well. Her pulse was 132 when she went on the table, on the morning following operation it went up to 160 and for the next thirty-six hours ranged between 150 and 175. After that it gradually subsided to about 85 where it remained during convalescence.

R. W. GARRETT.

CARCINOMA OF THE PONS.

READ BEFORE THE KINGSTON MEDICAL AND SURGICAL SOCIETY NOV. 2ND.

S. J., aet. 52, married, two children. Family history—No tubercle, syphilis or malignant disease. Personal history—In the early part of '94 the patient noticed a small, painless nodule on the right breast just below and external to the nipple. It gradually increased in size, until in the autumn, it was about as large as an orange. She experienced at this stage an occasional severe darting pain in the breast and consulted her physician, who diagnosed scirrhus and advised immediate operation. Several months however elapsed before she consented to operative procedure.

By this time the tumor was firmly adherent to the skin and sub-adjacent tissue; enlarged glands were found in the axilla, the right arm was slightly swollen, only a trace of the nipple remained. The supra-clavicular glands were not enlarged.

On the 31st of January, '95, assisted by Drs. Alger and Moran, I removed the entire breast and cleared the axilla of all enlarged glands. Recovery rapid and uneventful.

For about three months she was morose and melancholy not caring to see her most intimate friends. She apparently recovered from this condition and for eight months enjoyed excellent health, gaining several pounds in weight.

About one year after the removal of the mammary tumor she began experiencing pain in the right occipital region with vertigo, had occasional convulsive seizures with momentary loss of consciousness. Speech dragging and incoherent. There were slight convulsive movements of right upper eyelid.

Admitted to the Hospital, July 2nd, in the service of Dr. Garrett. She had lost much in weight, was dull and apathetic. Her face was pale and expressionless. The temporal veins were engorged and prominent, pulse 80, weak, no arterio-sclerosis. There was well marked paralysis of 3rd nerve, right side. Dynamometer, right 30, left 20, about a normal relation. No atrophy. Patellar tendon reflex unchanged. It required two or three efforts to bring the index finger to the nose with eyes closed, showing co-ordinating centres somewhat disturbed. Appetite good, by times ravenous. Bowels constipated,

urine diminished in quantity, no sugar, albumen nor casts. Ten days after admission she had a severe vomiting spell and at once lapsed into a profound stupor which continued for about six hours. From this time the mental obscuration seemed to be more marked. She answered questions intelligently but was unable to follow any conversation. At this stage the grating of the teeth at night was distressing. The temperature, which up to the present, had not exceeded 100 F., now ranged from 101 F. to 103 F. Three days later another period of unconsciousness followed lasting about the same time as the former and differing only in the additional discomfort— involuntary movements of the bowels. These apoplectic attacks recurred at intervals until her death.

Dr. J. C. Connell examined the eyes July 27th and reported as follows:—Right eye, anaesthesia of the cornea, pupil reacts slightly to light. With ophthalmoscope cornea hazy and fundus seen with difficulty, disc choked, retinal arteries almost invisible, retinal hæmorrhage irregular in outline, covering the upper part of the disc and curving in a crescent downwards towards temporal side. Considerable lachrymation during examination.

Left eye—Pupil normal in size with slight reaction. On touching cornea with finger there is reflex closure of eyelids. With ophthalmoscope media hazy, disc choked: infiltration from papillitis extends over considerable part of the retina, arteries not visible, veins large and tortuous, no hæmorrhage.

Diagnosis—The prolonged headache gradually getting worse, the vomiting, optic neuritis, involvement of the 3rd nerve, the mental obscuration and general failure in health left no doubt of the presence of a cerebral tumor. Localization was not more difficult. The continued occipital pain suggested the posterior fossa as the seat of lesion. Sequin advises basing localization of the lesion on the first symptom of paralysis, which in this case was the drooping of the right upper eyelid, supplied by the superior division of the 3rd nerve. The nerve has its deep origin in the floor of the aqueduct of Sylvius. The pressure symptoms enumerated chiefly cerebellar indicated that the lesion was at or near the origin of the nerve.

Treatment—Increasing doses of Pot. iodid without effect, otherwise palliative.

PATHOLOGICAL REPORT (DR. W. T. CONNELL.)

On removing dura, surface veins full, no bulging of substance. Sections made from above downwards. Substance very soft and

watery. Ventricles greatly dilated. Situated on the upper and posterior surface of the pons and involving its superior fibres was a soft almost diffuent tumor. The tumor passed backward beneath the tentorium and involved about half an inch of the right lobe of the cerebellum and one-eighth inch of the left. The right side of the pons was effected more deeply than the left. The tumor did not pass up into the cerebral hemispheres. The tumor measured $1\frac{1}{4}$ inches, antero-posteriorly, one inch transversely and averaged half an inch in thickness.

Microscopic Examination—Rapidly growing encephaloid carcinoma. Blood-vessels filled with red blood cells are numerous and distinctly marked throughout the specimen, occupying the inter-alveolar fibrous tissue. In some parts of the specimen small hæmorrhages into the epithelial structure can be seen.

Remarks—There was no recurrence of the tumor in the breast or axilla but scarcely two years had elapsed. Carcinoma of the pons is comparatively rare. Of 55 cases collected by Starr:—30 tuberculous, 6 sarcomatous, 10 gliomatous, 3 glio-sarcomatous, 2 carcinomatous, 3 gummatous, 1 other variety.

The diagnosis of cerebral tumor is not always easy. In cases where there is no paralysis the difficulty is much increased. Many cases have been and are diagnosed hysteria. Shoenthal (Berlin Klin) has recorded a case of supposed hysteria in which the most careful examination failed to reveal any physical signs of tumor, yet the pathologist found a large tumor of right frontal lobe. Mayer and Buzzard have reported several such cases.

Bramwell, in his work on intracranial tumors, describes an enormous tumor lying in the central region upon the cortex of the right side without a symptom of paralysis. Tumors of the pons are of course inoperable. Horsley, Park and others advise removal of a section of skull for the relief of the severe cephalalgia due to inoperable tumors. Park relates the history of a case in which for severe cephalalgia from tumor at the base, he made a large trephine opening in the skull, relieving the pain for several months. With the advantages of modern surgery we are justified in making more exploratory incisions, putting forth a greater effort for the relief of this most unfortunate class of our patients.

JAS. THIRD.

RADICAL CURE OF HERNIA IN THE ADULT (BASSINI.)

CASE I.

P. H., age 55, had suffered from occasional attacks of gastralgia for several years. He had a right inguinal hernia, and as the gastric pain was sometimes unendurable and seemed to be associated with the descent of the bowel (his truss at times failing to hold it), operation for radical cure was advised, and consented to by the patient.

On May 20th, under thorough asepsis, an incision, starting from near the ant Iliac spine and ending at the external ring, was made through the superficial tissues—exposing the aponeurosis of ext. oblique muscle. A director was inserted under the external pillar of the ring and the aponeurosis divided the whole length of the skin incision,—the edges of the aponeurosis were separated from adjacent tissues until the margin of the rectus was exposed internally, and the under surface of Poupart's ligament externally.

The sac and cord being now exposed, an attempt was made to separate them, and was only successful after a great deal of trouble, as the long continued pressure of the truss had caused extensive adhesions and there was no characteristic appearance of the sac to assist in distinguishing it. It was impossible until after opening the sac, and, with the finger inside as a guide, the rest of the tissues were torn away from it.

The sac being now isolated was drawn down, and, being certain that no bowel or omentum was included, a catgut ligature was passed through it, tied, and the lower portion of the sac excised.

The cord was now held up and the free margins of the internal oblique, trans-versalis, and conjoined tendon were united to the shelving edge of Poupart's with interrupted sutures of kangaroo tendon. The aponeurosis of ext. oblique was next united by a continuous suture of the same material, and the skin with silkworm gut. The patient was kept in bed for two weeks and then, with a supporting bandage was allowed up. The pain which had rendered his life miserable was greatly relieved and in two months time he resumed work without a truss.

CASE II.

J. H., age 35, was admitted to Hospital with a strangulated inguinal hernia, June 16th. He had worn a truss since childhood, and had been employed two days before admission lifting heavy beams, when he felt the bowel suddenly appear in the scrotum. Being

unable to reduce it he consulted the nearest physician next day, and, as it still was irreducible he was sent to the General Hospital.

Under chloroform, taxis was tried without effect, and the field of operation being rendered aseptic, Bassini's method as above described, was followed. The stricture was divided and the bowel reduced after incising the sac for that purpose and to free it, for, as in Case I, the pressure of the truss had caused agglutination of the tissues. It was a case of congenital hernia, and after exsection of the middle portion, the lower opening of the sac was united by a continuous suture of catgut to form a new tunica vaginalis. There were no untoward effects after the operation and the patient resumed work in about two months without using a truss.

CASE III.

W. R. age 35, was suffering from an oméntal strangulated, inguinal hernia. After dividng the stricture and excising the strangulated omentum, the same steps as in the former operation were followed. Instead, however, of using kangaroo tendon, chromicized catgut was employed, and, though the final result was good, he resuming work as baggage-man without a truss, yet, for a considerable time after the operation sinuses formed, caused by the irritation of the chromicized catgut.

Remarks—Radical cure of hernia in the young is more easily performed than in the adult. In the child the sac has generally a characteristic appearance sufficient to readily distinguish it. But in the adult such appearance is lost in cases of long standing, and the pressure of the truss makes it much harder to separate the sac from the cord.

In Bassini's method, the idea is, after obliterating the sac, to strengthen the weakened region by so suturing as to secure primary union, differing thus from McBurney's, in which union by granulation is sought, or from Ball's or McEwen's, in which the sac is in-folded or twisted.

Cicatrical tissue does not form as firm or sound a barrier as primary union, since scar tissue is liable to stretch, and hence relapses are more common in McBurney's than in Bassini's, nor do the twisting or in-folding of the sac secure, as a rule, a good result, as the plug of sac thus formed tends to act as a wedge and so after a time weaken the part and induce a recurrence. The primary union, spoken of, must occur between muscular structures (Int. oblique, etc.) on the one hand, and tendinous (Ponpart's) on the other, and as this takes several weeks, the nature of the suture material is of the utmost importance.

Catgut has the objection that it would be absorbed too quickly. Silkworm gut may act as a foreign body, and though it may remain an indefinite time in the tissues without causing any trouble (we have found it perfect, eight months after being used to suture torn muscles), yet at any time it may set up irritation. Chromicized catgut has the same objection, sinuses may form and the patient be subjected to the inconvenience of delay in the healing process as in Case 3 above referred to. Hence, a suture material which will not be absorbed too quickly, *i.e.* within two months of introduction, or act as a foreign body, is essential, and these conditions are fulfilled by kangaroo tendon (Dr. W. B. Coley, N. Y. Medical Journal, Feb. 1895).

While Bassini's so far has given the best results, yet there are some defects associated with the method:—A new canal is made for the spermatic cord bounded posteriorly by the union of the Int. oblique and Transversalis with Poupart's, and anteriorly by the aponeurosis of Ext. oblique, hence the cord is stretched more than it usually is, is on a higher level than normal, and, passing from the abdominal cavity to the newly made canal, turns more or less sharply around the outer edge of the Internal oblique where it is sutured to Poupart's ligament. Again, the separation of the cord from the sac is done by a tearing process, and thus there is always a possibility of union occurring between the injured connective tissue of the cord and the line of suture, hence, injury to the spermatic cord or testicle is always possible, and in many cases does occur.

Stinson of San Francisco, proposes in the December number of the *Canada Lancet*, a modification of Bassini's with reference to the situation of the cord and an improvement in the treatment of the neck of sac. He does not ligate the sac, as in Bassini's, but cutting it off as high up as possible, sews by a continuous suture the edges of the cut peritoneum, claiming that the ligated sac will always present a slight cone formation or depression internally, which might tend to induce a recurrence.

To obviate the injury to the cord he sutures the Internal oblique to Poupart's in front of the cord, and leaves a small opening for that structure below the Internal oblique, but this latter seems to us as much at fault as Bassini's, for, as the natural direction of the cord is oblique and as he leaves only a small opening near the pubic bone, the cord will turn more or less sharply around the lower edge of the Internal oblique just as in Bassini's it turned around the outer edge, and, if he left a larger opening it would interfere with a satisfac-

tory result, as the region would not then be as strong as in Bassini's.

The possible injury to the cord is more than counterbalanced by the excellent results following Bassini's method; Bull and Coley reporting 300 cases with only seven lapses.

D. E. MUNDELL.

THE MEDICAL STUDENTS' ANNUAL DINNER.

IN the City Hall on the evening of Tuesday, December 22nd, the Medical Students of Queen's University held their Annual Dinner. As usual with the Medical Students' gatherings everything passed off most successfully. It is not our intention to report *in extenso* the proceedings on that occasion, but to give to those interested in Medical Education a synopsis of what was said by Dr. Fowler, the worthy and beloved Dean of Queen's Medical Faculty, regarding the origin of this Medical School. The Dean replied to the toast of Queen's University and her Faculties, and after a few introductory remarks proceeded as follows:—

In the early summer time, of the year 1854, the Medical Faculty of Queen's University was first formed under somewhat remarkable circumstances. It is scarcely imaginable that such a condition as led to the formation of this Faculty could exist at the present day.

Several students of medicine, who had spent three sessions pursuing their studies in a city west of Kingston, which does and always did pride itself in being exceptionally progressive, not only in educational matters, but in every other respect, were unable to obtain a degree in medicine, which they greatly coveted, unless they subscribed to certain religious tests which were thoroughly obnoxious to them. All honor should be paid to the noble fellows who indignantly refused to submit to such degradation. With one or two exceptions they have passed to their eternal rest.

A petition headed by Robert Douglas, a noble specimen of nature's gentlemen, was presented to Queen's College and the Medical profession of Kingston, praying them to come to their relief by establishing a Medical Faculty in Kingston. The University nobly responded, saying we will—and we will give all the aid and accommodation we can spare—and they did—they also said we will allow the Medical Faculty to retain all graduation and registration fees in full confidence that the Medical Faculty will do its very utmost to advance the cause of higher education; and at the same time entail no financial burdens on the University.

The Government of Canada, on application being made, through the late Sir John A. Macdonald, who was a staunch friend of the Collège, gave an annual grant to the Medical School at Kingston, absolutely refusing to give it to the University, and by the receipt of

this grant, the Medical Faculty was enabled to erect the commodious building they now occupy.

The Medical Faculty as at first constituted was as follows:— James Sampson, M.D., Professor of Clinical Medicine and Surgery, and President of the Faculty; John R. Dickson, M.D., Prof. of the Principles and Practice of Surgery; Horatio Yates, M.D., Professor of Principles and Practice of Medicine; William Hayward, M.R.C.S., Eng., Professor of Midwifery and diseases of women and children; Fife Fowler, M.D., L.R.C.S., Edin., Professor of Materia Medica and Pharmacy; and last, although always first, John Stewart, L.R.C.S., Edin., Professor of Anatomy, Physiology and Practical Anatomy, and Secretary of the Faculty. ✱

The following graduated at the end of the first session having previously spent three sessions in the study of Medicine elsewhere:— Daniel Chambert, Robert Douglass, Samuel Dunbar, Weston L. Kerriman, William Hillier, John F. Mercer, William Lumner Scott, H. W. Spafford. And in addition the following were in attendance:— J. M. Bell, Dugald McKellar, Robert Blakely, Francis Blakely, Henry Evans, Oliver Thibido, William Fraser, George Sparham, John R. Benson, Benj. W. Franklin, J. P. Sutton, Harvey F. Chisholm, Michael Sullivan, Marshall Brown, William Mostyn.

** Professor of Forensic and State Medicine - John Palmer
Litchfield (appointed in 1855 to the charge at Rochester of the Criminal Institute)*

ON the 22nd October I was called to see a woman suffering from phlegmonous erysipelas, with a history of two previous attacks. The patient was a pale delicate looking woman about thirty years of age, vitality low, and about eight months pregnant with her fourth child. She complained of chills, headache and severe pain in one foot; the tongue was furred, pulse 104, temperature 101. The ordinary symptoms were too well marked over the left foot and lower third of the leg to leave any doubt about the diagnosis. The usual treatment, local and constitutional, was ordered. A few days later sloughing took place and a large sphacelus separated, exposing the tendons and fascia over an irregular area, two to three inches wide and several inches long on front surface of the foot and leg.

On Sunday morning, Nov. 2nd, I saw the woman, her temperature was 99° F., pulse 90. No headache, no pain in the foot, but there was a free discharge from the granulating surface; the appetite was improving and the disease was evidently beginning to decline. I explained to the friends the infectious nature of the disease and obtained a promise that the woman would be removed to the hospital before

her confinement. At eight o'clock that same evening I answered a hasty summons and found the woman in the second stage of labor, well advanced, pains frequent and strong; ten minutes after I reached the house a bright healthy female child was born. There was no difficulty or delay in the delivery of the placenta, very little hæmorrhage and the uterus contracted firmly. The usual toilet (no douche) was made. An occlusion pad carefully applied and the diseased limb wrapped in a sheet wrung out of a strong carbol solution. Antiseptic measures were rigidly enforced throughout and the woman made a good recovery.

The chief points of interest in the case seem to be:—

1. A severe case of phlegmonous erysipelas developed during the eighth month of pregnancy.
2. Premature labor was induced by the disease.
3. The labor was precipitate, lasting but half an hour, in other respects normal.
4. Labor occurred at the most infective stage of the disease, during the period of suppuration and free discharge.
5. Parturition took place in the same room and upon the same bed occupied by the patient throughout her illness, no reinfection occurred, in fact the puerperium was normal in every respect.

Under the circumstances are we justified in assuming that the antiseptic measures employed, prevented puerperal infection? or would it be more reasonable to infer that the disease rendered the patient immune? The latter view is supported by the fact that erysipelas and puerperal infection are due to the same microbe, the streptococcus pyogenes. Again if we admit the theory of immunity, may not a woman who contracts erysipelas during pregnancy be considered proof against the infective energy of the puerperal microbe, provided the disease reaches its acme before parturition takes place?

ISAAC WOOD.

DR. W. T. CONNELL

Desires to announce to the Profession that he is prepared to make Microscopical, Chemical, and Bacteriological Analyses, as may be required, of Morbid Tissues, Tumors, Serous or Purulent Effusions, Curettings, Sputum, Urine, Blood, Stomach Contents, Throat Membranes or Secretions, Urethral or Vaginal Discharges, etc. He is also prepared to apply Widal's method for diagnosis in Typhoid Fever, and to perform autopsies.

For information, methods of transmitting specimens, etc., address

PATHOLOGICAL LABORATORY,
QUEEN'S UNIVERSITY, KINGSTON.